

2022 Annual Report: Elk Valley Regional and Site-Specific Groundwater Monitoring Programs

Regional Groundwater Monitoring Program
Fording River Operations
Greenhills Operations
Line Creek Operations
Elkview Operations
Coal Mountain mine

Teck Coal Limited

VOLUME V OF VI

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SNC-Lavalin Project: 635544

Appendix X

Analyte List



Appendix X: Analyte List

2018 SSGMP Approved Analyte List

	Units
Field Parameters	
TEMPERATURE	°C
<u>PH</u>	pH unit
Dissolved Oxygen	mg/L
SPECIFIC CONDUCTANCE	μS/cm
OXIDATION-REDUCTION POTENTIAL (ORP)	mV
Physical Parameters (laboratory)	all call
pH	pH unit
HARDNESS (as CaCO ₃)	mg/L
Specific Conductance	μS/cm
Total Suspended Solids Total Dissolved Solids	mg/L mg/L
Turbidity	NTU
Alkalinity, total (as CaCO ₃)	mg/L
Bicarbonate	mg/L
Carbonate	mg/L
Hydroxide	mg/L
Ammonia (as N)	mg/L
Bromide	mg/L
CHLORIDE	mg/L
Fluoride	mg/L
NITRATE (as N)*	mg/L
NITRITE (as N)	mg/L
Total Kjeldhal Nitrogen	mg/L
Ortho-Phosphate	mg/L
Total Phosphorus	mg/L
SULPHATE (SO4)*	mg/L
Dissolved Metals	J
<u>Aluminum</u>	μg/L
Antimony	μg/L
Arsenic	μg/L
Barium	μg/L
Beryllium	μg/L
Bismuth	μg/L
<u>Boron</u>	μg/L
CADMIUM*	μg/L
CALCIUM	μg/L
<u>Chromium</u>	μg/L
Cobalt	μg/L
Copper	μg/L
<u>Iron</u>	μg/L
<u>Lead</u>	μg/L
<u>Lithium</u>	μg/L
MAGNESIUM	μg/L
<u>Manganese</u>	μg/L
<u>Mercury</u>	μg/L
<u>Molybdenum</u>	μg/L
<u>Nickel</u>	μg/L
POTASSIUM	μg/L
<u>SELENIUM*</u>	μg/L
<u>Silver</u>	μg/L
SODIUM	μg/L
Strontium	μg/L
<u>Thallium</u>	μg/L
Tin	μg/L
<u>Titanium</u>	μg/L
<u>Uranium</u>	μg/L
<u>Vanadium</u>	μg/L
<u>Zinc</u>	μg/L
Organics	
Total Organic Carbon	-
Dissolved Organic Carbon	-

2020 RGMP Approved Analyte List

	Units
Field Parameters	
Temperature	°C
<u>pH</u>	pH unit
Dissolved Oxygen	mg/L
Specific Conductance	μS/cm
Oxidation-Reduction Potential (ORP)	mV
Physical Parameters (laboratory)	
<u>pH</u>	pH unit
Hardness (as CaCO 3)	mg/L
Specific Conductance	μS/cm
Total Suspended Solids	mg/L
Total Dissolved Solids	mg/L
Turbidity	NTU
Alkalinity, total (as CaCO 3)	mg/L
Bicarbonate	mg/L
Carbonate	mg/L
Hydroxide	mg/L
Ammonia (as N)	mg/L
Chloride	mg/L
Fluoride	mg/L
Nitrate (as N)*	mg/L
Nitrite (as N)	mg/L
Total Kjeldhal Nitrogen	mg/L
Ortho-Phosphate	mg/L
Total Phosphorus	mg/L
Sulphate (SO4)*	mg/L
Dissolved Metals (laboratory)	19-
<u>Aluminum</u>	μg/L
Antimony	µg/L
<u>Arsenic</u>	µg/L
<u>Barium</u>	µg/L
<u>Boron</u>	
<u>Cadmium*</u>	μg/L μg/l
Calcium	μg/L μg/L
<u>Chromium</u>	
	μg/L
<u>Cobalt</u>	µg/L
Copper	µg/L
<u>Iron</u>	µg/L
<u>Lithium</u>	μg/L
Magnesium	µg/L
<u>Manganese</u>	μg/L
<u>Molybdenum</u>	μg/L
Nickel	μg/L
Potassium	μg/L
Selenium*	μg/L
Sodium	μg/L
<u>Uranium</u>	μg/L
<u>Zinc</u>	μg/L

BOLD CAPITAL = Included in the Elk Valley Drinking Water Sampling Plan
Underlined = Standards are available in the CSR for AW, IW, or LW; BC WOG AW; or, Guidelines for Canadian Drinking Water Quality DW
Italics = Constituents included in the TG6 "Core List of General Water Quality Analytes and Field Measurements"
* = Constituents of interest (CI)
TG6 = Technical Guidance 6 Water and Air Baseline Monitoring Document for Mine Proponents and Operators (BC MoE, 2012).

Appendix XI

Field Methodology and Teck Best Management Practices

- Attachments
 - > XI-1: Teck Coal Standard Practices & Procedures







Field Methodology

Water level measurement, sample collection and handling were completed by Teck or others in accordance with the British Columbia Field Sampling Manual (BCFSM) Parts A and E. (BC MOE, 2013a, b) as required in Permit 107517. A consistent general methodology was followed for each location by adhering to Teck's updated Standard Practices and Procedures (SP&Ps) for water level measurements, well purging and groundwater sampling (TC GW-01, TC GW-02; Attachment 1). Appropriate well-specific methods were required to account for specific safety concerns, well construction, well type, and variable recharge. During monitoring and sampling events, field observations were recorded, such as weather conditions and any unusual occurrences (i.e., changes in site use or site physical conditions, the condition of the monitoring well and whether repairs are needed, and ponded water in the vicinity of the monitoring well).

1.1 Sampling Frequency

Permit 107517 prescribes a minimum quarterly sampling frequency after well installation, to assess seasonal variability of groundwater conditions, which is consistent with the BC Ministry of Environment & Climate Change Strategy (ENV) Water and Air Baseline Monitoring Guidance Document for Mine Proponents and Operators (ENV, 2016). Monitoring frequency is further reviewed on an annual basis to assess adequacy to address the seasonal variability and to address whether the frequency should be reduced if little to no variability is observed. Overall, unless otherwise recommended, the quarterly monitoring schedule and rationale was as follows:

- Winter (First Quarter): Winter sampling to capture when groundwater levels are nearing their lowest and recharge to groundwater is minimized due to frozen ground.
- Spring (Second Quarter): Sampling during the freshet months to capture when groundwater levels and the extent of groundwater recharge and discharge are maximized.
- Summer (Third Quarter): Sampling during the post freshet months to capture when the groundwater levels are decreasing.
- Fall (Fourth Quarter): Sampling to capture groundwater conditions between the summer and winter sampling events.

12 **Analyte List**

Groundwater was analyzed for select constituents from the core list of general water quality analytes provided in Table 2 of the BC ENV's Water and Air Baseline Monitoring Guidance Document for Mine Proponents and Operators (ENV, 2016). Minimum detection limits for each parameter are suitable for comparison to the screening criteria. The list of recommended constituents, detection limits, and rationale is presented in the 2018 Site-specific Groundwater Monitoring Program (SSGMP) Update reports (SNC-Lavalin, 2019a, b, c; Golder, 2019; SRK, 2018). An updated analyte list was provided as part of the 2020 RGMP Update (SNC-Lavalin, 2020). Both are appended to the main report in Appendix X.





Analyses for dissolved metals is specified to prevent misrepresentation of the mobile concentrations of constituents due to increased turbidity, which may occur as the result of sampling techniques, well construction, and/or geological formation (i.e., clay or silt bearing formations). For metals, the dissolved (i.e., filtered samples) component provides the best representation of groundwater transport. Approval for removal of total metals from all of Teck's groundwater sampling programs was received via email to Teck from ENV on November 3, 2016.

The 2018 SSGMP Update recommends analyzing for bicarbonate, carbonate, and hydroxide in place of bicarbonate-, carbonate-, and hydroxide-alkalinity to assist with water-type data interpretation. These parameters are used to characterize water type and direct analysis of these parameters would eliminate the need to convert alkalinity results.

1.3 Sample Handling and Shipment

Samples were handled and shipped in a manner that is consistent with the practices and procedures prescribed in the BCFSM Parts A and E and Teck's SP&Ps TC_GW-01 and TC_GW-02. Samples were submitted to a Canadian Association for Laboratory Accreditation Inc. (CALA) accredited laboratory for analysis in accordance with the British Columbia Environmental Laboratory Manual (Austin, 2020).

The following was completed as per Teck SP&P's:

- Preservatives and certified clean sample bottles were provided by an accredited laboratory.
- Samples collected for dissolved metals were field-filtered using a syringe and in-line filter.
- Samples that required preservation were preserved in the field.
- Samples were shipped in ice-chilled coolers under chain-of-custody documentation and procedures.

1.4 Groundwater Monitoring and Sampling

As per Teck's SP&P and the BCFSM, groundwater monitoring was generally completed as follows:

- Prior to sample collection, manual water level measurements (i.e., with an electronic water level tape)
 were measured from each location. In addition to manual water level measurements, the water levels
 in some wells were continuously monitored with pressure transducers (hereinafter referred to as
 dataloggers).
- Continuous measurements were collected hourly by the datalogger, which is appropriate for capturing
 any rapid fluctuation of water levels yet manage the memory and battery limitations of the hardware.
 The majority of the dataloggers are Solinst® Leveloggers; however other manufacturers (e.g., Divers
 from van Essen) are also used. Dataloggers were deployed below the anticipated frost penetration
 depth to prevent the instrument from freezing. Some have been attached to the bottom of frost plugs.
- Data collected by the dataloggers were downloaded each quarter, when possible. After samples were
 collected, the data logger was re-deployed at the same depth. Any changes in the length of
 cable/string used were noted.
- Water level data was corrected for atmospheric influences using a barometric pressure datalogger (eg. Solinst® Barologger), which measures changes in atmospheric pressure. These are typically deployed in a protected and secured location, such as inside a steel well casing/monument, at a suitable location and elevation.





As per Teck's SP&P and the BCFSM, groundwater purging, and sampling was generally completed as follows:

- Water quality monitoring equipment was prepared and calibrated. Sensors were calibrated on a
 routine basis and the calibration process was documented. If a field measurement was identified out
 of the expected historical ranges from previous sampling events at the monitoring well, calibration of
 field probes was re-confirmed.
- Dedicated tubing was installed in each well and a pump was used to draw water to the surface for sample collection. The specific pump type selected for each monitoring well location was determined based on well construction, type, and recharge characteristics. Wells with depth to water less than 7 mbgs were generally purged and sampled following low-flow (0.5 L/min) sampling techniques to minimize sediment entrainment. In cases where depth to water was approximately 7 mbgs or greater, wells were sampled using tubing fitted with a Waterra foot valve or a bladder pump. Wells were purged three well volumes or until field parameters [electrical conductivity (EC), dissolved oxygen (DO), pH, oxidation-reduction potential (ORP), turbidity and temperature] stabilized after three consecutive readings using a YSI flow through cell. Field parameters were recorded once stable, prior to sampling.
- Following purging, a sample was collected at a flow rate of approximately 0.1 L/min using the lowest possible setting for the particular pump. The low-flow rate is intended to minimize the disturbance of entrained sediments mixing within the well and is intended to draw water directly from the formation around the well.
- Groundwater monitoring, purging, and sampling details specific to each Operation are presented in the sections below.

1.5 Fording River Operations

In addition to manual monitoring in 2022, 31 monitoring wells were continuously monitored with data loggers. Continuously monitored wells are listed in Table FR-02 (Appendix V).

The specific pump type selected for each monitoring well location is provided in Table FR-02 (Appendix V).

Select wells at FRO require different methods for sampling. Supply wells, (i.e., FR_GH_WELL4 and FR_POTWELLS), have limited access to the wellhead; therefore, samples were collected from a distribution point (i.e., faucet) within the water system or at the sample port at the well head. Samples from FR_POTWELLS are representative of one or more of a number of wells in the water supply system, while FR_GH_WELL4 is representative of a single well. FR_GH_WELL4 (not continuously running) was purged, and parameters were monitored to ensure stabilization prior to sampling, while parameters were only measured a single time from FR_POTWELLS (continuously running) prior to sampling.

1.6 Greenhills Operations

Prior to sample collection, manual water level measurements (i.e., with a water level tape) were measured from each location, except for supply wells GH_POTW09, GH_POTW10, GH_POTW15, GH_POTW17, and RG_DW-01-03 due to having limited access to the wellhead.





In addition to manual monitoring, all wells except for GH_MW-TD, GH_MW-PC4A, GH_MW-PC4B, GH_MW_RLP-2 and the supply wells were continuously monitored with data loggers. Supply wells were not continuously monitored due to having limited access to the wellhead.

The specific pump type selected for each monitoring well location is provided in Table GH-02 (Appendix VI.

Select wells at GHO require different methods for sampling (GH_MW-TD and supply wells). Flowing artesian conditions were encountered at GH_MW-TD during installation. Groundwater at this well is collected directly from the discharge spigot using filters and a syringe. Supply wells GH_POTW09, GH_POTW10, GH_POTW15, GH_POTW17, and RG_DW-01-03 were sampled from the sample port (i.e., faucet) at the wellhead. Prior to collection of samples, the supply wells were purged, and parameters were recorded.

1.7 Line Creek Operations

In addition to manual monitoring in 2022, 25 wells were continuously monitored with data loggers. These wells are listed in Table LC-02 (Appendix VII).

The specific pump type selected for each monitoring well location is provided in Table LC-02 (Appendix VII).

Prior to sampling, all wells were purged prior except LC_PIZP1001, LC_PIZP1002, and LC_PIZP1003, where only water level was recorded, and LC_PIZ1206C, LC_PIZ1210B, and LC_PIZ1210C, where sampling was completed by hydrasleeve. Purging of monitoring wells was completed using either a bailer, peristaltic pump or bladder pump following low-flow sampling techniques

1.8 Elkview Operations

In addition to manual monitoring, in 2022 36 wells were continuously monitored with data loggers (Table EV-02, Appendix VIII).

The specific pump type selected for each monitoring well location is provided in Table EV-02 (Appendix VIII). Purging of monitoring wells was completed using either a peristaltic pump or bladder pump following low-flow sampling techniques.

Prior to sampling, monitoring wells were purged with the exception of EV_WF_SW, which was sampled using a HydraSleeve™ (no purge method) due to the deep water level at this well (>130 mbgs). Supply wells were sampled from a distribution point. Prior to collection of samples, the tap or valve at the supply wells was opened for a minimum of five minutes to purge water through the distribution system. The objective of purging was to obtain samples representative of the water source and not a sample influenced by the distribution system.

1.9 Coal Mountain Operations

In addition to manual monitoring, all wells were continuously monitored with data loggers (Table CM-02, Appendix IX).

Monitoring wells were sampled using three methods: low-flow purging/sampling, artesian flow grab sampling, and no-purge sampling. The specific pump type selected for each monitoring well location is provided in Table CM-02 (Appendix IX).





Low-flow sampling was conducted using dedicated bladder pumps for the majority of wells (Table CM-02, Appendix IX). Low-flow sampling was conducted using a peristaltic pump at CM_MW_AG1A and CM_MW_AG1B. Flow rates were sustained below 0.5 L/min while purging, and samples were collected following stabilization of field parameters.

Grab samples were collected from artesian flow at monitoring wells CM_MW4-SH and CM_MW4-DP. Water discharging from the top of the standpipe was directed into sample bottles.

No-purge sampling was conducted at four monitoring wells (CM_MW1-DP, CM_MW7-SH, CM_MW7-DP, and CM_MW8) using the HydraSleeve™ system. Recovering the sleeve captured a core of water from the standpipe along the well screen interval. The HydraSleeve™ was then returned to the bottom of the standpipe following sampling.

1.10 Regional Drinking Water Program

There is limited access to the wellhead at municipal and private domestic wells sampled as part of the RGMP (RG_DW-01-03, RG_DW-02-20, RG_DW-03-04, RG_DW-03-10). Therefore, samples were collected from a distribution point (i.e., faucet) within the water system or at the sample port at the well head. Domestic wells were sampled, where possible, via the sample port used in the initial drinking water evaluation or previous sampling event.

Prior to collection of samples, the tap or valve at the sample location was opened for a minimum of five minutes to purge water through the distribution system. The objective of purging was to obtain samples representative of the water source and not a sample influenced by the distribution system.

Water quality parameters (pH, EC, temperature, ORP, DO, and turbidity) were monitored until stable readings were obtained. Once the stabilized water quality parameters were recorded, the flow was reduced to minimize splashing and samples were collected in laboratory supplied bottles.





2 References

- Austin, Joyce. (editor). 2020. British Columbia Environmental Laboratory Manual. Analysis, Reporting and Knowledge Services, Knowledge Management Branch, B.C. Ministry of Environment and Climate Change Strategy, Victoria, BC.
- British Columbia Ministry of Environment (BC MOE). 2016. *Technical Guidance 6: Water and Air Baseline Monitoring Guidance Document for Mine Proponents and Operators*. Technical Guidance for Environmental Management Act Applications, Version 2.0, June 2016.
- British Columbia Ministry of Environment (BC MOE). 2013a. *Part A Quality Control and Quality Assurance. British Columbia Field Sampling Manual*. 2013.
- British Columbia Ministry of Environment (BC MOE). 2013b. Part E Ambient Freshwater and Effluent Sampling. British Columbia Field Sampling Manual. 2013.
- Golder Associates Ltd. (Golder). 2018. *Line Creek Operations Site Specific Groundwater Monitoring Program 2018 Update*. Prepared for Teck Coal Limited. October 31, 2018.
- SNC-Lavalin Inc. (SNC-Lavalin). 2019a. Fording River Operations Site Specific Groundwater Monitoring Program 2018 Update. Prepared for Teck Coal Limited. September 30, 2019.
- SNC-Lavalin Inc. (SNC-Lavalin). 2019b. *Greenhills Operations Site Specific Groundwater Monitoring Program 2018 Update*. Prepared for Teck Coal Limited. September 30, 2019.
- SNC-Lavalin Inc. (SNC-Lavalin). 2019c. *Elkview Operations Site Specific Groundwater Monitoring Program 2018 Update*. Prepared for Teck Coal Limited. September 30, 2019.
- SNC-Lavalin Inc. 2020. *Regional Groundwater Monitoring Program, Program Update*. Prepared for Teck Coal Ltd. December 4, 2020.
- SRK Consulting (Canada) Inc. (SRK). 2018. *Coal Mountain Operations Site Specific Groundwater Monitoring Plan 2018 Update*. Prepared for Teck Coal Limited SRK. Project No. 1CT017.199. October 31, 2018.

Attachment XI-1

Teck Coal Standard Practices & Procedures

New Version #: 01

MEASUREMENT OF WATER TABLE ELEVATION IN WELLS

Teck

Teck Coal Ltd. utilizes a system in which Standard Practices and Procedures are developed, implemented and maintained. This helps ensure that safety and environmental risks associated with various work tasks are identified, mitigated and managed.

1.0 PURPOSE AND SCOPE

This document outlines the procedure which will be used by personnel for measuring water depth in wells, observation wells, and piezometers.

2.0 RESPONSIBILITIES

Depending on the operation, field monitoring activities and documentation may be carried out by an Environmental Officer, Environmental Technician (not all operations have this position), or a designate, such as an Environmental Co-op Student.

The Environmental Officer, Technician, or designate is responsible for:

 Measuring the depth to groundwater in a structure (well, observation well, piezometer).

3.0 BACKGROUND

Depth to groundwater surface is measured using an electric water level meter (such as Solinst Model No. 101 or equivalent). A light on the water level meter illuminates and/or an audible alarm sounds when the weighted probe tip contacts the water surface in the well and completes an electronic circuit. The measured depth to water is determined to within 0.01 meter by noting the point on the probe cable that corresponds to the measuring point (MP) at the top of the well/piezometer casing at the initial point of contact.

4.0 PROCEDURES

The following steps are necessary to collect water level measurements:

1. Check the operation of the meter by turning on the indicator switch and pressing the test button.

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MEASUREMENT OF WATER TABLE ELEVATION IN WELLS

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- 2. Holding the water level indicator above the well casing, lower the cable gradually into the well or piezometer until the indicator contacts the water surface. The contact with water surface is indicated by the buzzer sounding and/or illumination of the indicator light. At this point, stop lowering the cable.
- 3. Note the point on the graduated cable that corresponds to the MP at the top of the casing when the electronic circuit is first completed. The MP should be the inner casing and not the outer casing that is protecting the well. If the inner casing cannot be reached and the outer casing is used as the MP, then this must be recorded in the datasheet. If necessary, grasp tape with thumb and index finger exactly at the measuring point marked at the top of the well casing. Pull tape out of well slowly and read measurement.
- 4. Record the depth to the water surface to the nearest 0.01 m.
- 5. Draw the cable about 0.25 above the surface of the water, then lower it and repeat Steps 2 through 4. If these two readings differ by more than 0.02 m, repeat until the measured readings stabilize. Measurements should always be taken as the indicator is lowered into the well, not as it is raised.

5.0 DEVIATION FROM PROCEDURE

Adherence to this procedure will help to ensure that depth to water is measured properly, can be consistently repeated, and provides accurate data for measurement of water table elevation. Deviation from this procedure may result in improper measurement of water depth and inaccurate data being recorded.

6.0 KEY DOCUMENTS/TOOLS/REFERENCES

- Teck. 2012. Environment, Health, Safety and Community Management Standards. July:
 - Standard 4 Water, Ecosystems and Biodiversity.
 - o Standard 13 Monitoring Measurement, Inspection and Audit.
 - Standard 20 Documents and Records.

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MONITORING WELL PURGING AND GROUNDWATER SAMPLING

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Teck Coal Ltd. utilizes a system in which Standard Practices and Procedures are developed, implemented, and maintained. This helps ensure that safety and environmental risks associated with various work tasks are identified, mitigated, and managed.

1.0 PURPOSE AND SCOPE

This document outlines the procedure which will be used by Teck Coal for purging, monitoring, and sampling groundwater from monitoring wells. This is applicable to more routine monitoring programs such as compliance monitoring, and not necessarily to research and development programs, which may require far more detailed water chemistry.

2.0 **RESPONSIBILITIES**

Depending on the operation, field monitoring activities and documentation may be carried out by an Environmental Officer, Environmental Technician (not all operations have this position), or a designate, such as an Environmental Co-op Student.

The Environmental Officer, Technician, or designate is responsible for:

- Purging the well as possible prior to performing any monitoring or sampling activities.
- Collecting the water sample(s).

3.0 BACKGROUND

It is recommended that a low-flow pump is used to sample groundwater where possible. This is not always a feasible or practical methodology. Having to use a pump, power source, and associated equipment can be a major hindrance, especially for sampling locations which may be remote and/or off of roadways or good pathways.

Manual methods to purge and collect groundwater include use of bailers or plastic tubing with foot valves to allow water to be pumped one-way by hand. Dedicated plastic tubing with foot valves is inexpensive, effective, easy to use and can be set up so that each monitoring well has its own dedicated tubing. This would eliminate potential for cross-contamination between wells. Bailers can also be used for purging and sampling and are inexpensive and very portable. If bailers are used, care must be taken to prevent contamination from one well to the next. Either

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MONITORING WELL PURGING AND GROUNDWATER SAMPLING

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bailers need to be disposable (single use), or carefully cleaned and decontaminated between sampling locations.

4.0 PROCEDURES

Actively producing well

If a dewatering well has been installed and is actively being used to lower or control the water table, then samples can likely be collected at the surface. Either sample at the discharge point of the pump (hard or soft line) or from a tap installed at the well head.

Monitoring Well or Piezometer

A monitoring well or piezometer is a passive structure (no permanent pump installed) and so water must be brought to the surface manually or by use of a low flow pump.

Water can be brought to the surface for measurement and sample collection using a low flow pump, plastic tubing and one-way foot valve, or bailer.

Preparation

Preparation includes inspecting the condition of the well, monitoring health and safety conditions, and calibrating and decontaminating equipment. General procedures are presented below:

- 1. Make sure area around well head is clean and free of debris. If necessary, place a plastic drop cloth around the well head to prevent sampling equipment from coming into contact with the ground surface.
- Inspect condition of well (e.g., well locked, loose-fitting cap, measuring point well marked, surface casing disturbed, well casing straight, condition of concrete pad).
 Indicate condition of well on the datasheet.
- 3. All equipment should be decontaminated before and after introduction to each well. Protective latex or nitrile gloves should be worn during possible water-contact or

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equipment-contact activities. At a minimum, gloves should be changed between each well or when introduction of potential contaminants to the well is possible.

- 4. Measure water level using an electronic water level meter as described in SP&P TC-GW-01. Sounding the bottom of the well using a weighted tape (i.e., for well casing volume calculations) before sampling is not recommended to avoid resuspension of settled solids. If possible, determine the elevation of the well bottom from drilling records.
- 5. Calculate the well casing volume as follows:

well casing volume (L) =
$$\pi$$
 (r²)(h)(1000 L/m³)

where h = height of water in the well casing (i.e., depth to bottom of the well minus depth to water (in m), and r = radius of well casing (in m).

6. Calibrate water quality meters for measuring field parameters as appropriate. At a minimum, temperature, pH, specific conductance, and turbidity measurements should be collected during purging and before sampling. Record equipment calibration and maintenance in the equipment log sheets. Decontaminate meters between wells by rinsing with distilled water.

Well Purging

Where reasonably practicable, it is recommended that 3-4 purge volumes of water are removed from the well. Monitoring wells are purged before groundwater samples are collected for analyses. The purpose of well purging is to remove stagnant groundwater from the well (which has interacted with air in the well casing).

The well must then be allowed to recharge prior to sampling. In some cases, such as encountering a very low production and/or essentially dry well, it is not feasible to purge 3-4 volumes of water. If this situation is encountered, be sure to keep good records of the field conditions experienced, the volume of water purged, and notes detailing why 3-4 purge volumes are not possible. Also record any visual observations of the water purged, such as color, turbidity, odor, presence of invertebrates (e.g., mayfly larva) etc., which may provide useful information about the state of the well.

Field parameters (i.e., at a minimum pH, temperature, and specific conductance) are measured during the purging process (See SOP TC-GW-03).

Purging is assumed to be complete when the readings of these parameters have stabilized.

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MONITORING WELL PURGING AND GROUNDWATER SAMPLING

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It is recommended that purging takes place the day before sampling. The well needs to have the stagnant water removed and then recharge. However, recharge water should not sit for too long prior to sampling, as it can react again with air in the casing and become unrepresentative of the groundwater in the area.

- Lower the pump intake or intake tubing (as applicable) into the water column. The
 pump intake should be placed at the middle or slightly above the middle of the
 screened interval in confined aquifers. Placement of the pump intake near the top of
 the water column is recommended for unconfined aquifers screened across the
 water table.
- 2. Conduct purging at a rate that is lower than used to develop the well and that will minimize drawdown in the well. Recommended purge rates for low-flow sampling are generally less than 0.5 L/min, or a rate that results in minimal (i.e., less than 0.3 m) drawdown in the well. Actual purge rates will vary on the basis of aquifer material, well construction, and purging equipment.
- 3. Continue purging the well until field parameters have stabilized. Field parameters are stable when three successive readings are within ± 0.1 for pH, ±3 percent for conductivity, ± 0.2 °C for temperature, ± 10 mV for redox potential and ± 10 percent for turbidity and dissolved oxygen.
- 4. After the field parameters have stabilized, reduce the pump rate to approximately 0.1 L/min or the lowest possible flow setting for the particular pump. Pump should be operated at a rate less than 0.1 L/min when collecting samples for VOC analysis.
- 5. In the event that even very low purge rates result in emptying of the well, groundwater samples for laboratory analyses should be collected as soon as sufficient groundwater accumulates in the well, regardless of field parameters or total volume purged.

Groundwater Sampling

- Groundwater sampling is conducted after proper purging of the well.
- Where possible, groundwater samples for analyses should be collected directly from the pump discharge at the lowest rate possible to minimize cross contamination, suspension of solids, and aeration of the sample.

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MONITORING WELL PURGING AND GROUNDWATER SAMPLING

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- Both bladder pumps and submersible pumps are suitable for purging and sampling of all
 groundwater parameters. A bailer may be used to collect groundwater samples for laboratory
 analyses of volatile organic compounds; however, the peristaltic pump is suitable for collection
 of semivolatile organic compounds (SVOCs), metals, and general chemistry parameters.
- Bailers are not recommended for purging or sampling of groundwater monitoring wells because they may agitate solids in and next to the well.
 - 1. Groundwater samples should be introduced directly from the pump discharge into the proper sample container and filled to capacity.
 - 2. In general, groundwater samples collected for multiple compounds should be collected in the following order:
 - Volatile organic compounds (VOCs).
 - Dissolved gasses and total organic carbon (TOC).
 - SVOCs (such as polycyclic aromatic hydrocarbons).
 - Metals and cyanide.
 - Major water quality cations and anions.
 - Radionuclides.
 - 3. In some cases, field filtration may be required (e.g., metals). Filtered water should be introduced directly into the appropriate sample container. If samples cannot be filtered in the field, do not preserve them. The receiving lab can filter then preserve.
 - 4. If applicable, remove the pump or tubing from the well. Close and lock the well. Decontaminate the sampling equipment.

5.0 <u>DEVIATION FROM PROCEDURE</u>

Adherence to this procedure will ensure that wells are purged and sampled correctly. Deviation from this procedure may result in improper collection of samples which yield poor or incorrect data, or to unnecessary health and safety risk to the person(s) collecting the sample(s).

New Version #: 01

MONITORING WELL PURGING AND GROUNDWATER SAMPLING

Teck

6.0 KEY DOCUMENTS/TOOLS/REFERENCES

- British Columbia. 2003. British Columbia field sampling manual for continuous monitoring and the collection of air, air-emission, water, wastewater, soil, sediment, and biological samples. Province of British Columbia, Ministry of Water, Land and Air Protection. January.
- Teck. 2012. Environment, Health, Safety and Community Management Standards. July:
 - Standard 4 Water, Ecosystems and Biodiversity.
 - Standard 13 Monitoring Measurement, Inspection and Audit.
 - Standard 20 Documents and Records.
- U.S. EPA. 1993. Ground water sampling—a workshop summary. EPA/600/R-94/205.
 U.S. Environmental Protection Agency, Robert S. Kerr Environmental Research Laboratory, Ada, OK.

Appendix XII

High Water Mark Survey for Groundwater Monitoring Wells in the Elk Valley (KWL, 2023)





Okanagan 202 - 3334 30th Avenue Vernon, BC VIT 2C8 T 250 503 0841 F 250 503 0847

Technical Memorandum

DATE: February 28, 2023

TO: Evan Warner

Teck Coal Limited

FROM: Jason Miller, P.Eng.

RE: TECK COAL LIMITED

Highwater Mark Survey for Groundwater Monitoring Wells in the Elk Valley

Our File 2628.110 - 300

1. Introduction

Kerr Wood Leidal Associates Ltd. (KWL) was retained by Teck Coal Limited (Teck) to complete a geodetic survey of highwater marks and groundwater monitoring wells in proximity to water bodies (i.e., normal highwater mark) in the Elk Valley to support Teck's groundwater quality team in determining the appropriate water quality guideline to apply to the wells. This technical memorandum and accompanying figures provide the details of the work completed.

2. Field Survey

The survey was completed between October 19 and 24, 2022, by Align Survey Ltd. (Align) with onsite oversite by Jason Miller, a senior water resources engineer with KWL. The survey was completed using Global Navigation Satellite System (GNSS) Real Time Kinematics (RTK) survey equipment. The RTK survey consisted of Trimble R12 receivers for both the system base and rover units. RTK Base data was recorded and submitted to the Natural Resources Canada Precise Point Positioning Service (PPP) system to generate an accurate base location for each setup. Horizontal coordinates are in UTM Zone 11N, NAD83 (CSRS) Epoch 2002. The vertical datum is CGVD28 (HTv2.0) and has an accuracy of approximately +/- 2 cm.

A total of 31 groundwater monitoring wells were identified by Teck as requiring a survey due to their proximity to creeks, rivers, and ponds (refer to Figure 1). It is understood that wells less than 10 m (horizontally) from the highwater mark of a waterbody are evaluated using the British Columbia Water Quality Guidelines; wells farther than 10 m are evaluated using the Contaminated Sites Regulations.

The normal highwater mark was identified at each location as the approximate vegetation line along the bank of an active channel or pond. At some locations, the adjacent flood channel was dry at the time of the survey and vegetation was observed within the flood channel; in these cases the top of bank was surveyed as it appears the flood channel would be activated annually or every few years. This is consistent with definitions provided in the Riparian Areas Protection Regulation (V.1.1, November 2019).

The survey for each well included:

- the ground elevation next to the groundwater monitoring well;
- the nearest highwater mark; and
- the water level of the active water body (where possible).

TECHNICAL MEMORANDUM

Highwater Mark Survey for Groundwater Monitoring Wells in the Elk Valley February 28, 2023

Following the survey, the data was processed and figures were developed for each site. The figures include an orthophoto (2022), groundwater monitoring well locations, and the distance to the normal highwater mark (or top of bank). The survey results are provided in Table 1 and Figures 2 to 8.

rable 1. Gaininary of Garvey Rest	Table 1: Summary of Survey Results.				
Site and Groundwater Monitoring Well Name	Distance of Well to Highwater Mark (m)	Comments			
Porter Creek (Figure 8)					
RG MW FR6A	15.5	Distance to active creek			
RG_MW_FR6B	13.9	Distance to active creek			
Round Prairie (Figures 5, 6, 7)					
RG MW ER5A	22.4	Distance to active river			
RG MW ER5B	22.8	Distance to active river			
RG_MW_ER6A	20.4	Distance to flood channel (top of bank)			
RG_MW_ER6B	21.0	Distance to flood channel (top of bank)			
RG_MW_ER10A	19.4	Distance to active river			
RG_MW_ER10B	20.5	Distance to active river			
RG_MW_ER11A	16.7	Distance to flood channel			
RG_MW_ER11B	17.4	Distance to flood channel			
RG_MW_ER1A	24.6	Distance to flood channel (top of bank)			
RG_MW_ER1B	24.7	Distance to flood channel (top of bank)			
RG_MW_ER2A	15.3	Distance to flood channel (top of bank)			
RG_MW_ER2B	16.3	Distance to flood channel (top of bank)			
Dry Creek - LCO (Figure 8)					
RG_MW_DC1A	18.1	Distance to active creek			
RG_MW_DC1B	19.2	Distance to active creek			
Elk River (Figure 2)					
LC_MW_ER4A	36.9	Distance to active river			
LC_MW_ER4B	37.5	Distance to active river			
Harmer Dam (Figure 4)					
EV_MW_HC3	8.2	Distance to pond			
EV_MW_HC2	6.6	Distance to pond			
Dry Creek Pond - EVO (Figure 3)					
EV MW DC6	4.4	Distance to active creek			
EV MW DC5	8.1	Distance to active creek			
EV PW DC1	6.9	Distance to pond			
EV_MW_DC2	8.9	Distance to pond			
EV_MW_DC1	8.8	Distance to pond			
EV_MW_DC7	8.4	Distance to pond			
Alexander Creek (Figure 2)					
RG_MW_AC1A	12.7	Distance to active creek			
RG_MW_AC1B	12.2	Distance to active creek			



TECHNICAL MEMORANDUM

Highwater Mark Survey for Groundwater Monitoring Wells in the Elk Valley February 28, 2023

3. Closure

KERR WOOD LEIDAL ASSOCIATES LTD.

We trust the survey information provided is adequate documentation of the key information required to determine the water quality parameters to use for each well. Please contact the undersigned with any questions at 250-503-0841.

Prepared by:	Reviewed by:	
Original signed and sealed on February 28, 2023 by	Original signed on February 28, 2023 by	
Jason Miller, P.Eng. Project Manager	Mark Chiarandini, B.Sc. Hydrometric Group Lead	
JM/tdl		

Statement of Limitations

This document has been prepared by Kerr Wood Leidal Associates Ltd. (KWL) for the exclusive use and benefit of the intended recipient. No other party is entitled to rely on any of the conclusions, data, opinions, or any other information contained in this document.

This document represents KWL's best professional judgement based on the information available at the time of its completion and as appropriate for the project scope of work. Services performed in developing the content of this document have been conducted in a manner consistent with that level and skill ordinarily exercised by members of the engineering profession currently practising under similar conditions. No warranty, express or implied, is made.

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Encl.: Figures 1 to 8

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Revision History

Revision #	Date	Status	Revision Description	Author
0	February 28, 2023	Final		JM

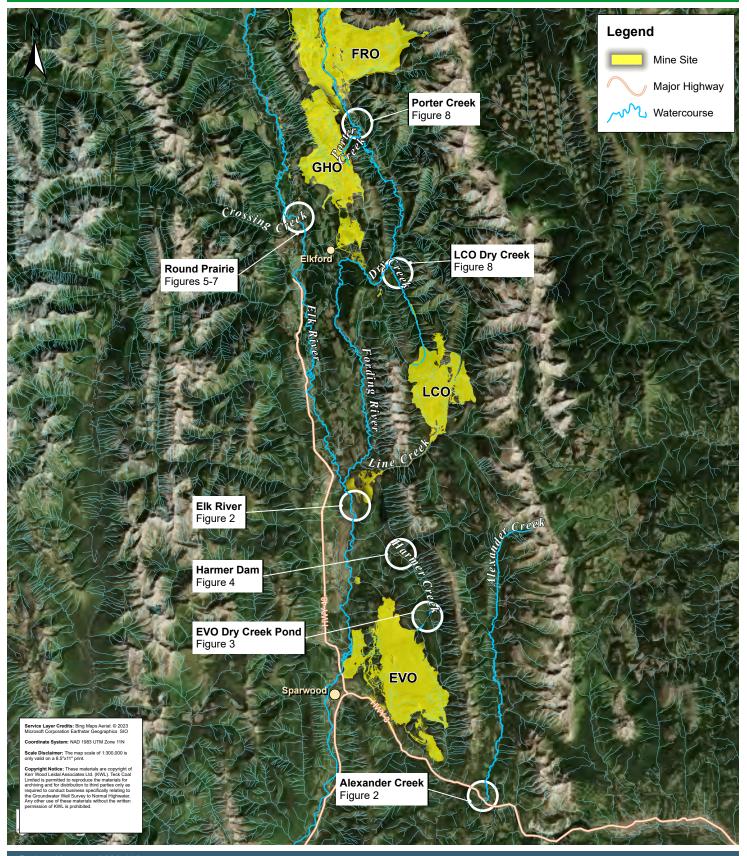
KERR WOOD LEIDAL ASSOCIATES LTD.

consulting engineers

Teck Coal Limited

Groundwater Well Survey to Normal Highwater





Pro	ject No	o	2628.1	<u>10</u>
Dat	е	Febr	uary 20	23
Sca	ale		1:300,0	00
0	2.5	5		 10 km

ELK RIVER

EX HIGHWATER MARK GROUND EL 1193.06 m ON OCT 24, 2022

36.9 m 37.5 m

Scale 1:300

1. HORIZONTAL DATUM IS UTM NAD83 ZONE 11N.

2. VERTICAL DATUM IS CGVD28.

EX GROUND EL 1303.93 m RG_MW_AC1B N: 5,502,844.99 E: 663,654.00 RG_MW_AC1A N: 5,502,844.99 E: 663,653.00 EX. TOP OF BANK EX HIGHWATER MARK GROUND EL 1302.74 ON OCT 19, 2022

ALEXANDER CREEK

Scale 1:250

(1:250)

EX GROUND EL 1192.94 m

LC_MW_ER4A N: 5,525,918.62 E: 653,205.49

LC_MW_ER4B N: 5,525,917.29 E: 653,205.97

KERR WOOD LEIDAL consulting engineers

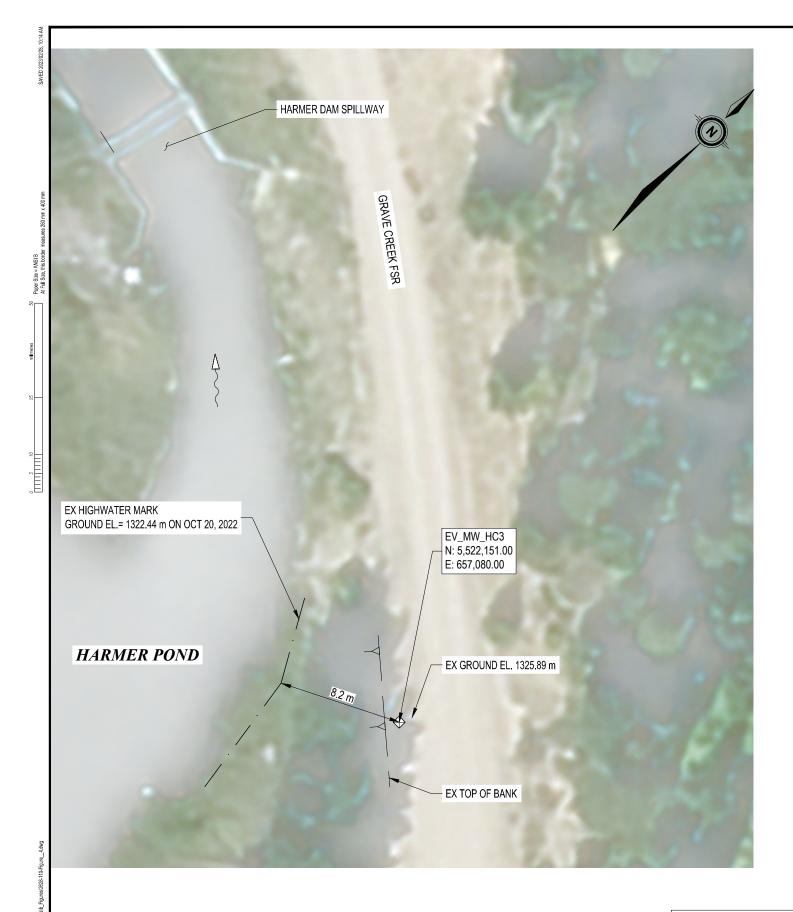
FIGURE 2

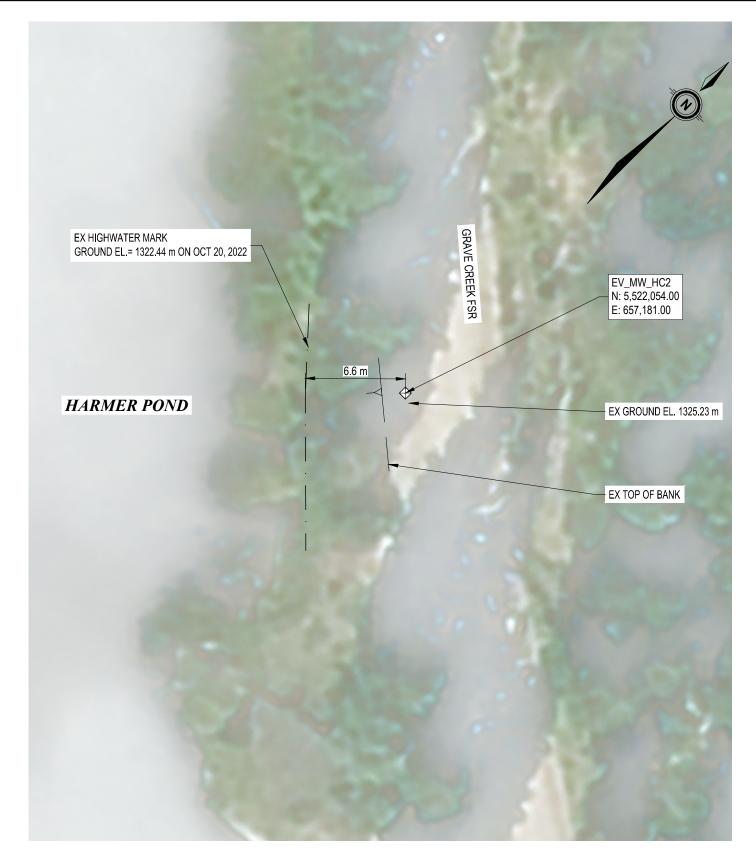


KERR WOOD LEIDAL consulting engineers

NOTES:

- 1. HORIZONTAL DATUM IS UTM NAD83 ZONE 11N.
- 2. VERTICAL DATUM IS CGVD28.

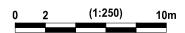




- NOTES:

 1. HORIZONTAL DATUM IS UTM NAD83 ZONE 11N.
 2. VERTICAL DATUM IS CGVD28.

KERR WOOD LEIDAL



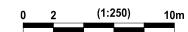






- NOTES:

 1. HORIZONTAL DATUM IS UTM NAD83 ZONE 11N.
- 2. VERTICAL DATUM IS CGVD28.





- NOTES:
 1. HORIZONTAL DATUM IS UTM NAD83 ZONE 11N.
 2. VERTICAL DATUM IS CGVD28.







Scale NTS

NOTES:
1. HORIZONTAL DATUM IS UTM NAD83 ZONE 11N.
2. VERTICAL DATUM IS CGVD28.



LCO DRY CREEK

Scale NTS



(1:250)10m

Appendix XIII

Data Quality Assurance / Quality Control (QA/QC)





1 Data Quality Assurance / Quality Control (QA/QC)

Teck Coal Limited (Teck) provided field and laboratory data relevant to the Site-Specific Groundwater Monitoring Programs (SSGMPs) and Regional Groundwater Monitoring Program (RGMP) to SNC-Lavalin Inc. (SNC-Lavalin). In addition, several wells were sampled by SNC-Lavalin personnel in 2022. In May 2022, a detailed Quality Assurance / Quality Control (QA/QC) review program was initiated by SNC-Lavalin on behalf of Teck to improve data quality in a continuous feedback cycle. The QA/QC review program evaluated all 2022 groundwater samples associated with the SSGMP and RGMP within 60 days of the end of each quarter (except for Q1 2022). This program included evaluating field and laboratory data, tracking and record keeping, and quarterly reporting.

The quarterly memorandums were discussed with operations within 60 days of the quarters' end and provided detailed summaries of any QA/QC issues flagged by SNC-Lavalin. Issues in 2022 included, limited mislabelled samples, malfunctioning field equipment, paper to digital transcription errors, missing analysis, anomalous concentrations, paper and digital record keeping, and limited identified Teck EQuIS data errors. The memorandum also included recommendations for corrective actions, such as refresher training for field personnel (including Teck consultants) for sample collection, record keeping, and Chain of Custody (COC) best practices. Additional corrective action recommendations included: following up promptly with the laboratory; outlining best practices when choosing duplicate locations; and improving records and data transferral between Teck and consulting field personal.

Starting in Q2 2022, groundwater data was submitted to the British Columbia (BC) Environment and Climate Change Strategy (ENV) Environmental Monitoring System (EMS), which is the ministry's primary data repository for environmental monitoring data.

For wells sampled by Teck personnel, SNC-Lavalin has relied on data and information provided by Teck and therefore, has assumed the information is both complete and accurate. Interpretations and conclusions within this report assumed data collection was completed in accordance with Permit 107517, the British Columbia Field Sampling Manual (BCFSM; BC MOE, 2013a, b), and Teck's Standard Practice and Procedures (SP&P) or SNC-Lavalin's Preferred Operating Procedures.

The QA/QC assessment completed for the SSGMPs and RGMPs reviewed shipping and handling issues, summarized results of relative percent differences (RPD) from duplicate samples, summarized detections of analytes in field blanks, and reviewed laboratory quality control reports. QA/QC results for RGMP wells within mine boundaries were presented within the discussion of their respective operations, while background wells outside of mine boundaries were presented in their own section. In addition, relevant Regional Drinking Water Monitoring Program wells are presented with the nearest operation. A summary of QA/QC methods and results for each Operation/Program are presented below.

All reported metals are the dissolved form.

All measured field parameters and water levels were reviewed for accurate transcription from the paper record to the digital medium. The stabilization of groundwater parameters was evaluated, and any variations noted.

1.1 Shipping and Handling Methods

Shipping and handling QA/QC includes assessing sample integrity upon arrival at the laboratory and when analysis hold times have been exceeded. Sample integrity observations are documented by the laboratory upon sample receipt. Deficiencies noted by the laboratory may include sample analysis after specified hold times, elevated sample temperature, bottle damage and labeling errors, which may result in deviations from the specifications of the British Columbia Laboratory Analysis Manual (BCLAM; Austin, 2020) or in requested analyses not being conducted. Hold time exceedances may result from samples received at the lab or analyzed past their specified hold time. Hold time exceedances are identified on the Certificates of Analyses (COAs) in Appendix XVI.

1.2 Duplicate Samples Methods

Duplicate samples, as described in the BCFSM Part E (BC MOE, 2013a), were collected at a frequency of at least one per ten samples (10%) during each sampling event to assess the overall precision (i.e., sample repeatability) which may be affected by both field sampling methodology (i.e., whether field collection procedures may result in variances in the chemistry of collected samples) and the precision of the laboratory analysis. Duplicate samples were evaluated by calculating the RPD of the concentration between the sample and duplicate, as follows:

$$RPD = \frac{|sample 1 - sample 2|}{\frac{1}{2}(sample 1 + sample 2)} \times 100\%$$

RPDs are calculated for parameters where at least one of the samples was greater than five times the laboratory detection limit; an RPD of less than 20% for metals and inorganics is considered an acceptable level of precision per the BCFSM Part A (BC MOE, 2013b). Teck has a QA/QC program based on this manual; where the result is less than five times the detection limit, the acceptable RPD will be modified as follows:

- RPD < 20%: Acceptable;
- RPD > 20% with results > 5 times the Detection Limit (DL): Possible problem; and
- RPD > 50% with results > 5 times the DL: Definite problem, most likely sample contamination or lack of sample representativeness.

1.3 Blanks Methods

Field and trip blanks were processed and submitted for analysis as part of each sampling event under each SSGMP and the RGMP. Teck's standard practice for collecting field blank samples is to open a designated field blank sample bottle pre-filled with ultra-pure de-ionized (DI) water and preservative (where applicable) at the sampling site during regular sample collection. For dissolved parameters (i.e., dissolved metals and dissolved organic carbon), blanks are collected by passing laboratory supplied DI water through a filter and collecting the sample. The sample is subsequently preserved in the same manner as the original samples and therefore, the sampling protocol is replicated. Blanks from the dissolved parameters provide information on contamination results from potential residue remaining on the filter, which may result in sample bias. Overall, field blanks provide information on potential contamination resulting from field handling techniques and atmospheric contamination.

Standard practice for trip blanks includes delivery of a sample set from the laboratory pre-filled with ultra-pure DI water and preservative (where applicable), which are kept in a cooler (with the other samples) and are unopened throughout the sampling trip. Trip blanks are meant to detect widespread contamination from the container and preservative during transport and storage. Field and trip blanks were shipped to the laboratory with routine samples and screened for analyte detections.





1.4 Ion Balance Methods

The balance of major and minor ions in a water sample can be used as a measure of the data quality and as a validation tool.

There are two methods of calculating ion balance and both involve calculating a ratio using the sum of cations and anions and both methods report values in percentages. However, one method reports the ion balance as a variation percent from the perfect balance (e.g., - 5.6%; APHA Method 1030; ALS, 2022) and the other method reports the ion balance as a percentage of variability from 100% (e.g. 92%). All ion balances within this report were reported as a variability from 100%.

Ion balance calculations outside the expected/ideal range (± 10%) may be the result of unmeasured ions, soluble/total analysis, field sampling differences, delayed filtration and/or samples with low ionic strength. In addition, high concentrations of total organic carbon (TOC), dissolved organic carbon (DOC), total suspended solids (TSS), or total dissolved solids (TDS) can also affect the results. There are many legitimate reasons for the ion balance to be outside the ideal range and does not imply the sample is unreliable (ALS, 2022).

The ion balance for both applicable groundwater and surface water samples were evaluated for inclusion on the piper plots, with samples excluded if greater than, or less than 10%. This established a baseline for all samples and removed any outliers. Piper plots were made for GHO, LCO, EVO, and CMm report appendices.

1.5 Laboratory QA/QC

ALS Canada Ltd (ALS) conducted routine internal QA/QC in accordance with BCLAM and reported these results as analyte qualifiers alongside the sample analysis results. SNC-Lavalin reviewed the qualifiers and considered them in the context of the other QA/QC analyses in evaluating their potential effects on the groundwater quality data.

1.6 Field QA/QC

SNC-Lavalin reviewed field parameters, manual water level measurements, and field notes recorded by Teck during sampling. Field parameters in the Teck database were compared to those in the field notes and corrections made to the database when notation errors were found. Manual depths to water measurements were compared to historical manual levels and to continuous water levels from pressure transducers (also called loggers). Select manual measurements were flagged where notation errors were suspected.



Background Monitoring Locations

The background program consisted of monitoring and sampling 21 wells; however, QA/QC results for nine of the wells (LC_PIZDC1307, LC_PIZDC1308, LC_PIZP1103, LC_PIZP1101, EV_MW_GV4A/B, CM MW3-SH/DP, CM MW6-DP) are included in their respective operation sections. As such, the following QA/QC assessment for the background program includes only the remaining 12 wells (FR MW FRRD1, FR MW CH1-A, FR MW CH2, GH MW BG1A/B/C, GH MW-Willow-1D, GH MW-Willow-2S/D, GH MW Wolf-1S/D, GH MW-Wolf-2D).

Miscellaneous Program Variances 21

A summary of miscellaneous variances from the 2022 monitoring program is provided in Table A.

Table A: Summary of Miscellaneous Program Variances

Quarter	Well ID	Comment
1-4	GH_MW-Wolf-1S	Well was dry.
4	GH_MW-Willow-1D, GH_MW-Wolf-1D, GH_MW-Wolf-2D	Negative field DO values due to sensor/calibration errors. Value not reportable.
4	GH_MW-Willow-2S	Well was dry.

2.2 Shipping and Handling

A summary of shipping and handling issues from the 2022 sampling program is provided in Table B.

Table B: Summary of Shipping and Handling Issues

Quarter	Qualifier	Well ID	Possibly Affected Analytes	Comment
1-4	Hold Time Exceedance	All wells, blanks and duplicates	pH, Oxidation Reduction Potential (ORP)	Exceeded ALS recommended hold time of 15 minutes prior to sample receipt. Field measurement recommended.

Except for pH and ORP, hold times were not exceeded for parameters analyzed in 2022. Parameters pH and ORP have a hold time of 15 minutes and measurements are taken in the field. These hold time exceedances did not affect data interpretation, as field measurement for pH and ORP are used for data analysis.

Duplicate Samples 2.3

A summary of samples with RPD values greater than 20% and parameter concentrations greater than five times the DL are provided in Table C, below.





Table C: Summary of Relative Percent Difference Values for Duplicate Samples

Quarter	Total Number of Duplicate Samples Collected	Well ID	Possibly Affected Analytes	RPD Value
1	4	FR_MW_FRRD1	Manganese	22%

Notes:

All other sample analytes had RPD values less than 20%.

Calculated RPDs for all parameters analyzed were less than 50% for the 14 wells assessed in the QA/QC assessment for the background program. These results indicated low variability in constituent concentrations from sampling and handling.

2.4 Field and Trip Blanks

A summary of the field and trip blank results are described in Table D, below.

Table D: Summary of Blank Samples with Parameters greater than Detection Limit

Quarter	Location or Date	Parameter	Value	Detection Limit	
Field Blanks					
1	FR_MW_FRRD1	Molybdenum	3.81 µg/L	0.050 μg/L	
2	FR_MW-CH1-A	Ammonia-N	0.0383 mg/L	0.0050 mg/L	
3	FR MW FRRD1	Aluminum	1.4 µg/	1.0 µg/	
3	FK_WW_FKKD1	Barium	<u>0.80 μg/L</u>	0.10 μg/L	
		Barium	0.22 μg/L	0.10 μg/L	
4	ED MW EDDD4	Copper	0.21 μg/L	0.20 μg/L	
4	FR_MW_FRRD1	Magnesium	0.0081 mg/L	0.0050 μg/L	
		Sodium	0.254 mg/L	0.050 μg/L	
Trip Blanks	Trip Blanks				
1	March 4 (FRO)	Aluminum	1.4 μg/L	1.0 μg/L	
1	Water 4 (FIXO)	Molybdenum	4.85 μg/L	0.050 μg/L	

Notes:

Values greater than five times the Reported Detection Limit (RDL) are underlined.

Concentrations of all constituents in field and trip blanks were less than the primary screening criteria.

Concentrations measured in field blanks greater than five times the DL included: ammonia-N (FR_MW-CH1-A in Q2), molybdenum (FR_MW_FRRD1 in Q1), barium (FR_MW_FRRD1 in Q3), and sodium (FR_MW_FRRD1 in Q4).

Except for dissolved molybdenum in the field blank collected at FR_MW_FRRD1 in Q1, the concentrations of the remaining parameters were orders of magnitude lower than the most stringent primary screening criteria, and therefore did not affect data interpretation. The dissolved molybdenum concentration was 2 times lower than the most stringent primary screening criteria. Also, there was no indication the source of the dissolved molybdenum impacted the groundwater sample included in the shipment (FR_MW-FRRD1). Therefore, the field blank detection did not affect data interpretation.

Overall, detectable concentrations in the trip blanks were within five times the DL at the 14 wells assessed in the QA/QC assessment for the background program, except for dissolved molybdenum in the trip blank from March 4, 2022.





Dissolved molybdenum in the March 4, 2022 trip blank groundwater sample was five times the RDL, but two times less than the lowest applicable standard (CSR drinking water (DW), $10~\mu g/L$). There is no indication that the source of the dissolved molybdenum impacted the two groundwater samples included in the shipment (FR_MW-FRRD1 and its field duplicate) because the sample concentrations (0.497 $\mu g/L$, 0.493 $\mu g/L$) were similar to the three-year (2020-2022) average concentration (0.454 $\mu g/L$). Because the concentration in the trip blank did not exceed the applicable primary screening criteria, the blank detection did not affect data interpretation. The source of the molybdenum was unlikely to be related to shipping and handling.

Previously, the laboratory investigated the source(s) of parameters above DLs in blanks; however, potential sources of sample cross-contamination were not identified (SNC-Lavalin, 2019). There is a possibility the elevated parameters concentrations were caused by contamination in the field, during transport, or from sample bottles or preservatives.

Dissolved molybdenum in the March 3, 2022 trip blank groundwater sample was five times the RDL, but two times less than the lowest applicable standard (CSR DW, 10 μ g/L). The results were verified by repeat laboratory analysis. There is no indication the source of the dissolved molybdenum impacted the other groundwater samples included in the shipment (CM_MW3-SH, CM_MW3-DP, CM_MW10, CM_NNP2). Because the concentration in the blank did not exceed the applicable primary screening criteria, the blank detection did not affect data interpretation.

2.5 Laboratory QA/QC

The detailed results of laboratory QA/QC are included in COAs in Appendix XVI. The quality control reports were reviewed and are summarized below.

Adjustments to the DLs were made to some parameters in select samples. Qualifiers included:

- DL raised due to dilution required for high concentration of test analytes; and
- DL adjusted due to sample matrix effects (e.g., chemical interference, colour, turbidity).

The raised DLs were consistently less than the screening standards, and as such, these DL qualifiers did not affect data quality.

Laboratory QA/QC sample results occasionally yielded a series of qualifiers used to flag limitations in the reportability of the QA/QC result. These qualifiers did not affect data interpretation and included:

- Dissolved concentration exceeds total, and results were confirmed by re-analysis;
- Method Blank exceeds ALS DQO. Limits of Reporting have been adjusted for samples with positive hits below 5x blank level;
- Reported result verified by repeat analysis; and
- Method Blank exceeds ALS DQO. Associated sample results which are below limit of reporting or greater than 5 times blank level are considered reliable.

The results of the laboratory QA/QC were acceptable for this assessment. A review of the quality assurance portion of the laboratory analytical reports did not identify any additional QA/QC issues.

2.6 Field QA/QC

Manual water level measurements were collected from all wells during each quarter. Field parameter measurements were collected from all wells during each quarter, except for dissolved oxygen at GH_MW-Willow-1D, GH_MW-Wolf-1D, and GH_MW-Wolf-2D in Q4, due to a sensor error. In addition, continuous water levels were recorded for all monitoring wells; however, dataloggers were only installed at GH_MW_BG1A, GH_MW_BG1B, and GH_MW_BG1C in Q2 2022 and therefore, there is less than a full year of continuous data.



2.7 QA/QC Summary

Calculated RPDs for all parameters in the duplicate samples were less than 50%. Hold times were met by the laboratory for all parameters. Detectable concentrations in trip and field blanks which were greater than five times the DL were well less than the applicable primary screening criteria and did not affect data interpretation. The laboratory quality control reports were reviewed, and the data are considered reliable.

Field parameters were collected in 2022 for all wells, except for dissolved oxygen at several wells in Q4, due to a sensor error. Manual and/or continuous water levels were collected in 2022 in all quarters for all wells, except for GH_MW_BG1A, GH_MW_BG1B, and GH_MW_BG1C, which had loggers installed in Q2. The field QA/QC program and laboratory QA/QC results for groundwater samples indicated the data collected are acceptable for use in this report.



3 Fording River Operations (FRO)

3.1 Miscellaneous Program Variances

A summary of miscellaneous program variances from the 2022 monitoring program is provided in Table E. Any variations that were not resolved are noted as Not Resolved (NR).

Table E: Summary of Program Adjustments

Quarter	Well ID	Comment	
1-4	FR_MW-SK1B	No data due to logger hardware malfunction.	
1-4	FR_HMW2	A sample was not collected due to equipment lodged in the well. Repairs attempted on August 29, 2022 but were not successful. In Q1 2023, FR_HMW2 was decommissioned and a replacement well (FR_MW23_HMW2_V2) installed.	
1-4	FR_MW-SK1A and FR_MW-SK1B	Samples were labeled incorrectly due to well identification issues. Data and COAs were corrected in Q1 2023 with no impact to 2022 results and reporting.	
1	RG_MW_FR10A	Field measurements were taken early during purging and therefore, were not representative of groundwater conditions. Field measurements cannot be relied upon.	
1	FR_MW-SK1A (original ID FR_MW-SK1B)	The sample and continuous water level data were not collected due to pump and logger malfunction.	
1	FR_HMW1D	Q1 Logger data missing due to hardware malfunction. New logger installed on March 15, 2022.	
1	FR_09-02-B	No Q1 data. Logger installed on April 28, 2022.	
1	FR_09-04-B	No Q1 data. Logger installed on April 28, 2022.	
4	RG_MW_FR1A/B/C	Logger data lost due to computer malfunction.	

3.2 Shipping and Handling

A summary of shipping and handling issues from the 2022 sampling program is provided in Table F.

Table F: Summary of Shipping and Handling Issues

Quarter	Qualifier	Well ID	Possibly Affected Analytes	Comment
1-4	Hold Time Exceedance	All wells blanks and duplicates	pH, ORP	Exceeded ALS recommended hold time of 15 minutes prior to sample receipt. Field measurement recommended.
1	Hold Time Exceedance	FR_HMW1S (and its duplicate) FR_HMW1D FR_09-02-A FR_09-02-B	Orthophosphate Nitrate-N Nitrite-N Turbidity	Samples exceeded ALS recommended hold time of three days prior to analysis. Samples were received by the lab within hold time.
	Hold Time Exceedance	FR_09-02-A FR_09-02-B	Acidity, Alkalinity, TDS, TSS	Hold time of seven days for TDS and TSS; and fourteen days for Alkalinity and Acidity exceeded by the lab. Samples were received by the lab within hold time.



Table F (Cont'd): Summary of Shipping and Handling Issues

Table F (C	ont a): Sun	nmary of Shipping and		
Quarter	Qualifier	Well ID	Possibly Affected Analytes	Comment
		FR_09-04-B	Orthophosphate	
1 (Cont'd)	Hold Time	FR_KB-1A (FR_FLD2_WG_2022- 02_NP- Field Blank)	Nitrate (N)	Hold time of three days exceeded for re-analysis or dilution, initial testing was
(Cont d)	Exceedance	Trip Blank (February 17, 2022) FR_MW18-02	Nitrate, Nitrite (N)	conducted within hold time.
Hold Time Exceedance Hold Time Exceedance 4 Hold Time Exceedance		FR_HMW1D FR_HMW1S	Orthophosphate, Nitrate-N Nitrite-N Turbidity	Samples exceeded ALS recommended hold time of three days prior to sample receipt by one day.
		FR_KB-1 FR_KB-3A FR_KB-3B	Orthophosphate, Nitrate-N Nitrite-N Turbidity	Samples exceeded ALS recommended hold time of three days prior to analysis. Samples were received by the lab within hold time.
		FR_HMW3 Trip Blank (April 25, 2022)	Nitrate-N	Sample exceeded ALS recommended hold time of three days prior to analysis. Sample was received by the lab within hold time.
	Hold Time Exceedance	FR_POTWELLS RG_MW_FR10C Trip Blank (May 06, 2022) Duplicate of RG_MW-FR10B	Orthophosphate	Hold time of three days exceeded for re-analysis or dilution, initial testing was conducted within hold time.
	Hold Time Exceedance	FR_HMW5 FR_MW_NTPSE (and its duplicate) Trip Blank (Septembe15, 2022)	Orthophosphate, Nitrate-N Nitrite-N Turbidity	Samples exceeded ALS recommended hold time of three days prior to analysis. Samples were received by the lab within hold time.
3	Hold Time Exceedance	FR_MW-1B	Orthophosphate, Nitrate-N Nitrite-N Turbidity, TSS, TDS	Sample exceeded recommended hold time of three days for Orthophosphate, Nitrate-N, Nitrite-N, Turbidity and seven days for TDS and TSS. Sample received by the lab on day four from sampling due to delay in shipment; therefore, the hold time of three days was missed. However, the hold time of seven days was overlooked by the lab.
	Hold Time Exceedance	FR_KB-1 FR_HMW5	Orthophosphate Nitrate-N Nitrite-N Turbidity	Hold time of three days exceeded by one day. Laboratory received samples within hold time.
	Hold Time Exceedance	FR_KB-3A FR_KB-3B	Orthophosphate Nitrate-N Nitrite-N Turbidity	Samples exceeded ALS recommended hold time of three days prior to analysis. Samples were received less than 24 hours prior to expiry.



Table F (Cont'd): Summary of Shipping and Handling Issues

Quarter	Qualifier	Well ID	Possibly Affected Analytes	Comment
	Hold Time Exceedance	FR_KB-2	Colour	Hold time of three days exceeded by one day. Laboratory received sample within hold time.
4	Hold Time Exceedance	FR_KB-3A FR_KB-3B	Colour	Samples exceeded ALS recommended hold time of three days prior to analysis. Samples were received less than 24 hours prior to expiry.

The recommended hold times for pH and ORP were exceeded for all samples, duplicates, and blanks in 2022. These parameters have a hold time of 15 minutes and measurements are taken in the field. These hold time exceedances did not affect data interpretation, as field measurement for pH and ORP are used for data analysis. The hold time of three days for dissolved orthophosphate, nitrate-N, nitrite-N, and turbidity was not met in Q1 to Q4, and for colour in Q4. The hold time of seven days for TDS and TSS was not met in Q1 and Q3, and for alkalinity and acidity in Q1. In most cases, samples were received within recommended hold time by the lab, but were not analyzed in time, except for:

- trip blank in Q1 (May 06, 2022) for orthophosphate (re-analysis past recommended hold time, initial testing was done within hold time); and,
- samples collected from wells FR MW-1B, FR KB-3A, and FR KB-3B in Q3, where samples were received by the lab either less than 24 hours prior to expiry or past recommended hold time due to delay in shipment.

Despite the analysis delays, the results were not considered unreliable and therefore, the analysis delays did not affect data interpretation within this report.

Duplicate Samples 3.3

A total of 184 samples (including 12 Trip Blank, 13 Field Blanks and 23 field duplicates) collected in 2022 were included in the FRO QA/QC assessment. A summary of samples with RPD values greater than 20% and concentrations of parameters greater than five times the DL are provided in Table G.

Table G: Summary of Relative Percent Difference Values for Duplicate Samples

Quarter	Number of Duplicate Samples Collected	Well ID	Possibly Affected Analytes	RPD Value
			Turbidity	93%
		FR HMW3	Chloride	<u>105%</u>
		FK_HIVIVV3	Ammonia-N	42%
			Nitrite-N	24%
1	7	FR_HMW1S	Barium	22%
			Copper	<u>79%</u>
		ED 00 04 D	Chloride	50%
		FR_09-04-B	Nitrate-N	36%
		FR_KB-1	Chloride	<u>54%</u>



Table G (Cont'd): Summary of Relative Percent Difference Values for Duplicate Samples

Quarter	Number of Duplicate Samples Collected	Well ID	Possibly Affected Analytes	RPD Value
		FD 00 02 B	Chloride	41%
		FR_09-02-B	Lithium	22%
2	5		TSS	33%
		RG_MW_FR1A	Turbidity	22%
			Cadmium	21%
			Nitrate-N	80%
3 6			Phosphorus, Total	<u>150%</u>
			TOC	22%
		ED MAN NITOCE	Calcium	23%
		FR_MW_NTPSE	Lithium	22%
			Molybdenum	22%
	6		Strontium	22%
			Uranium	21%
		FR_09-02-A	Turbidity	<u>159%</u>
			TSS	71%
			Phosphorus, Total	<u>161%</u>
		RG_MW_FR1C	TKN	<u>69%</u>
		FR_GCMW-2	Aluminum	26%
		FR_HMW3	Turbidity	<u>58%</u>
			Total Alkalinity	<u>65%</u>
		FR_GCMW-2	Bicarbonate	47%
		FR_GCWW-2	Nitrite-N	36%
			Cadmium	23%
4	5		TSS	<u>129%</u>
4	5	ED 00 02 A	Turbidity	<u>155%</u>
		FR_09-02-A	Phosphorus, Total	<u>196%</u>
			Cadmium	48%
			DOC	47%
		FR_GH_WELL4	Copper	27%
			Iron	29%

RPD values greater than 50% are <u>underlined</u>. All other sample analytes had RPD values less than 20%.

Review of the duplicate sample results indicated calculated RPDs for chloride (FR_HMW3 and FR_KB-1 in Q1), copper (FR_HMW1S in Q1), nitrate-N (FR_MW_NTPSE in Q3), TKN (RG_MW_FR1C in Q3), total alkalinity (FR_GCMW-2 in Q4), total phosphorus (FR_MW_NTPSE in Q3 and FR_09-02-A Q3, Q4), TSS (FR_09-02-A Q3 and Q4), and turbidity (FR_HMW3 Q1, Q4 and FR_09-02-A Q3, Q4) were greater than acceptable levels (50%).

The highest chloride concentrations among the sample/duplicate pair at FR_HMW3 in Q1 (4.53 mg/L) and the sample/duplicate pair FR_KB-1 in Q1 (3.18 mg/L) were at least two orders of magnitude lower than the most stringent screening criteria (100 mg/L). Concentrations of nitrate-N among the





samples/duplicates at FR_MW_NTPSE in Q3 (0.120 mg/L) were at least one order of magnitude lower than the primary screening criteria (10 mg/L). Copper concentrations from sample/duplicate pair at FR_HMW1S in Q1 (3.51 μ /L) was at least 5 times lower than the most stringent screening criteria (20 μ g/L).

Based on the above parameters' concentrations, any RPD values greater than 50% are not inferred to affect interpretation. Calculated RPDs for the numerous organic, inorganic, and physical parameters analyzed, were otherwise less than 50%. These results indicate low variability in constituent concentrations from sampling and handling.

3.4 Field and Trip Blanks

Detections were reported in six of the 13 field blanks and in four of 12 trip blanks submitted for laboratory analysis in 2022. Reported concentrations of detectable parameters and laboratory detections limits are provided in Table H, below.

Table H: Summary of Blank Samples with Parameters greater than Detection Limit

Quarter	Location or Date	Parameter	Value	Detection Limit
Field Blank	(S			
1		TKN	0.054 mg/L	0.050 mg/L
	FR_HMW3	Barium	0.21 μg/L	0.10 μg/L
		Magnesium	0.0056 mg/L	0.0050 mg/L
	RG_MW_FR1C	Copper	0.22 μg/L	0.20 μg/L
	FR_KB-1	Aluminum	1.2 μg/L	1.0 μg/L
		Phosphorus, Total	0.0029 mg/L	0.0020 mg/L
2	FR 09-01-B	Aluminum	1.6 μg/L	1.0 μg/L
	FK_09-01-B	Barium	0.25 μg/L	0.10 μg/L
		Zinc	1.9 μg/L	1.0 μg/L
	RG_MW_FR10B	Orthophosphate	0.0012 mg/L	0.0010 mg/L
4	RG_MW_FR10C	Barium	0.20 μg/L	0.10 μg/L
Trip Blanks				
	February 09	Molybdenum	3.98 µg/L	0.050 μg/L
		Conductivity	6.6 µS/cm	2.0 μS/cm
		Chloride	0.63 mg/L	0.10 mg/L
		Ammonia-N	0.0336 mg/L	0.0050 mg/L
1	February 17	Nitrite-N	0.0104 mg/L	0.0050 mg/L
	rebluary 17	Aluminum	2.3 μg/L	1.0 μg/L
		Barium	<u>0.79 μg/L</u>	0.10 μg/L
		Calcium	0.106 mg/L	0.050 mg/L
		Molybdenum	0.053 μg/L	0.050 μg/L
	April 21	Ammonia-N	0.0100 mg/L	0.0050 mg/L
2	April 21	TKN	0.080 mg/L	0.050 mg/L
۷	May 06	TOC	1.80 mg/L	0.50 mg/L
	Iviay 00	DOC	1.16 mg/L	0.50 mg/L

Note:

Value greater than five times the DL are underlined.

Concentrations of all constituents in field and trip blanks were less than the primary screening criteria.





Detectable concentrations in field blanks samples include TKN, orthophosphate, total phosphorous and several metals (aluminum, barium, magnesium, copper, and zinc) but none of these concentrations were greater than five times the RDL. Trip blanks had detectable concentrations of nitrite-N, aluminum, calcium. and molybdenum (Q1); ammonia-N and TKN (Q2); TOC and DOC (Q2), and conductivity. However, the concentrations were less than five times the RDL. Concentrations measured in trip blanks greater than five times the DL included: molybdenum (Q1), and chloride, ammonia-N and barium (Q1).

Results for ammonia-N in groundwater samples ranged from the DL (0.005 mg/L) to 3.80 mg/L. As a result, the ammonia-N groundwater results may not represent formation water quality, since the source of ammonia-N in the blanks samples is unknown. The sample results and blank detections were lower than the pH-dependant applicable primary screening criteria (3.7 mg/L - 18 mg/L), and therefore, the ammonia-N detections in the trip and field blank samples have not affected interpretation of the data.

Other parameters with blank sample concentrations greater than five times the DLs included: dissolved nitrate-N in a field blank (RG MW FR10B in Q3) and a trip blank collected on October 15; dissolved copper in a trip blank collected on November 5, hardness and numerous of dissolved metals in a field blank (RG MW FR10B in Q4). Reportable concentrations in the blanks ranged from 5 (nitrate-N in trip blank collected October 15) to 158 (dissolved calcium in field blank collected in Q4) times the DL.

However, except for dissolved chromium in the field blank collected in Q4 (1.2 µg/L) and dissolved copper in the trip blank collected November 5 (1.26 µg/L), reportable concentrations were orders of magnitude lower than the most stringent primary screening criteria. Dissolved chromium and copper concentrations were 4 and 15 times lower than the most stringent primary screening criteria, respectively. Reportable concentrations in all samples were low and met primary screening criteria. Based on the above, cross-contamination due to field equipment or travel was unlikely, and the detectable concentrations in blanks did not affect data interpretation.

Previously, the laboratory investigated the source(s) of parameters above DLs in blanks; however, sample cross-contamination was not found (SNC-Lavalin, 2019). Elevated concentrations of parameters may have been caused by contamination in the field from sample bottles or preservatives. The parameters greater than the DLs did not affect the data interpretation due to their low concentrations less than primary screening criteria.

Laboratory QA/QC 3.5

The detailed results of the laboratory QA/QC are included in the COAs in Appendix XVI. The quality control reports were reviewed and are summarized below.

Adjustments to the DLs were made to some parameters in select samples. Qualifiers included:

- DL raised due to dilution required for high concentration of test analytes;
- DL raised due to dilution required for high dissolved solids and/or electrical conductivity;
- DL adjusted for required dilution;
- Detection Limit Raised. Analyte detected at comparable level in Method Blank; and
- DL adjusted due to sample matrix effects (e.g., chemical interference, colour, turbidity).

The raised DLs were consistently less than the screening standards therefore these detection limit qualifiers did not affect data quality.

Laboratory QA/QC sample results occasionally yielded a series of qualifiers used to flag limitations in the reportability of the QA/QC result. These qualifiers did not affect data interpretation and included:

- Dissolved concentration exceeds total. Results were confirmed by repeat analysis;
- Dissolved Se concentration exceeds total. Positive bias on D-Se suspected due to signal enhancement from volatile selenium species.





- Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable);
- Ion Balance Review: Imbalance is due to interference or non-measured components;
- Method Blank exceeds ALS DQO. Limits of Reporting have been adjusted for samples with positive hits less than 5x blank level:
- Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or
 5-times blank level are considered reliable;
- Reported result verified by repeat analysis;
- TKN may be biased low due to nitrate-N interference. Nitrate-N is greater than 10 times TKN;
- TKN duplication was poor due to interference from high nitrate, which causes negative bias on TKN;
- TKN Matrix Spike recovery was low due to interference from high nitrate, which causes negative bias on TKN:
- · Quality control parameter frequency compliance for Matrix Spikes; and
- Quality control parameter frequency compliance for Laboratory Duplicates.

These notes are not unusual for these analyses considering the samples' chemistry reflects a mine-influenced groundwater (i.e., select samples have high TDS or nitrate-N concentrations). The results of the laboratory QA/QC were acceptable for the purpose of this assessment. A review of the quality assurance portion of the laboratory analytical reports did not identify any additional QA/QC issues.

3.6 Field QA/QC

Field parameters and manual water level measurements were collected from all wells during each quarter except for well FR_HMW2 (Q1-Q4) and RG_MW_FR10A (Q1) as detailed in Table E. The manual water level measurement made at FR_HMW5 in Q1 was considered erroneous, based on historical measurements. Continuous water levels were recorded for all monitoring wells, except for the supply wells FR_POTWELLS and FR_GHWELL4. In addition, due to instrumentation errors, continuous water levels were not available at FR_HMW1D (Q1), FR_MW-SK1B (Q1), FR_MW-SK1B (Q1-Q4), and RG_MW_FR1A/B/C (Q4). No logger was installed in Q1 at wells FR_09-02-B and FR_09-04-B.

3.7 QA/QC Summary

The field QA/QC program and laboratory QA/QC results for groundwater samples indicated the data collected are acceptable for use in this report. Calculated RPDs for all parameters in the 23 duplicate samples were less than 50%, except for dissolved cadmium, ammonia-N, nitrate-N and TKN in three sample/duplicate pairs. Hold time exceedances were only for orthophosphate, nitrate-N, nitrite-N, and turbidity; however, the concentrations were consistent with other historical results from those wells and did not affect data interpretation. The results reflect low variability for handling and sampling for the program.

The laboratory quality control reports were reviewed, and the data are considered reliable. Detectable concentrations of ammonia-N, nitrate-N, several dissolved metals in field and trip blanks were greater than five times the DL and considered in interpretating results. Concentrations of detectable parameters in blanks were well less than the applicable primary screening criteria and therefore, data interpretation was not affected.

Field parameters, manual and/or continuous water levels were collected in 2022 for all wells; however, field measurements and continuous water level data from FR_HMW2 could not be obtained in 2022 due to equipment lodged in the well. In Q1 2023, FR_HMW2 was decommissioned and a replacement well (FR_MW23_HMW2_V2) installed.





Greenhills Operations (GHO)

4 1 Miscellaneous Program Variances

A summary of miscellaneous program variations from the 2022 monitoring program is provided in Table I.

Table I: Summary of Miscellaneous Program Variances

Quarter	Well ID	Comment	
1-4	GH_MW-PC4B	Well was dry.	
1-4	RG_MW-FR11A	Logger malfunctioned and was replaced September 2022. Logger sent to Solinst for data recovery and repair.	
3	GH_MW-TD GH_POTW09 GH_POTW10 GH_POTW15 GH_POTW17	Field sheets could not be located for these monitoring events. Therefore, SNC-Lavalin was unable to complete the QA/QC field portion for these samples.	
3	GH_MW-MC-1D GH_MW-MC-2D	Negative field DO values due to sensor/calibration errors. Value not reportable.	

42 Shipping and Handling

A summary of shipping and handling issues from the 2022 sampling program is provided in Table J.

Table J: Summary of Shipping and Handling

Quarter	Qualifier	Well ID	Possibly Affected Analytes	Comment
1-4	Hold Time Exceedance	All locations, duplicate and blanks	pH and ORP	Exceeded ALS recommended hold time of 15 minutes prior to sample receipt. Field measurement recommended.
2	Hold Time Exceedance	GH_MW-PC GH_MW-PC4A RG_MW_FR11A RG_MW_FR11B	Total Phosphorus	Hold time exceeded by ten days. Samples received within recommended hold time. Possible bias low results.
2	Hold Time Exceedance	RG_MW_LC3B	Orthophosphate	Hold time exceeded for re-analysis, initial testing was conducted within hold time.

The recommended hold times for pH and ORP were exceeded for all samples, duplicates, and blanks in 2022. These parameters have a hold time of 15 minutes and measurements are taken in the field. These hold time exceedances did not affect data interpretation, as field measurement for pH and ORP are used for data analysis. The hold time of three days for dissolved orthophosphate was not met due to reanalysis (initial testing was done within hold time) for sample collected from well RG MW LC3B (Q2). The samples collected from GH MW-PC, GH MW-PC4A, RG MW FR11A and RG MW FR11B in Q2 exceeded recommended hold time by 10 days for total phosphorous, possible low bias results. Samples were received within recommended hold time by the lab.

Despite the analysis delays, the results were considered reliable and therefore, the analysis delays did not affect data interpretation within this report.





4.3 **Duplicate Samples**

A total of 125 samples including 14 field duplicates collected in 2022 were included in the GHO QA/QC assessment. A summary of samples with RPD values greater than 20% and concentrations of parameters greater than five times the DL are provided in Table K.

Table K: Summary of Relative Percent Difference Values for Duplicate Samples

Quarter	Total Number of Duplicate Samples Collected	Well ID	Possibly Affected Analytes	RPD Value
			Turbidity	30%
		GH_MW-GHC-1A	Nitrate-N	147%
4			TSS	32%
1	3		Turbidity	31%
		RG_MW_LCWC1	TKN	46%
			Aluminum	22%
		GH_MW-RLP-2	Nitrate-N	<u>51%</u>
2			TSS	<u>51%</u>
	4	GH_MW-ERSC-1	Turbidity	86%
		GH_MW-MC-2D	Selenium	46%
	3	RG_MW_LC3A	TSS	28%
			Turbidity	112%
			TKN	27%
3			Total Phosphorus	23%
		011 11111 5500 4	Turbidity	83%
		GH_MW-ERSC-1	Zinc	25%
		GH_MW-MC-2S	Cadmium	49%
		RG_MW_LC3A	Turbidity	23%
			Nitrite-N	54%
4	3	GH_GA-MW-3	Molybdenum	40%
		RG_MW_LC3B	Manganese	21%

Note:

RPD values greater than 50% are underlined.

All other sample analytes had RPD values less than 20%.

Review of the duplicate sample results indicated calculated RPDs for nitrate-N (GH MW-GHC-1A in Q1, and GH MW-RLP-2 in Q2), nitrite-N (GH GA-MW-3 in Q4), TSS (GH MW-ERSC-1 in Q2), and turbidity (GH MW-ERSC-1 in Q2 - Q3 and RG MW LC3A in Q3), were greater than acceptable levels (50%).

Turbidity and TSS parameters do not have applicable primary screening criteria and therefore, the RPD results greater than 50% were not regarded to be of concern. The highest nitrate-N concentrations among the sample/duplicate pair at GH MW-GHC-1A in Q1 (0.703 mg/L) and the sample/duplicate pair at GH MW-RLP-2 in Q2 (1.08 mg/L) were one order of magnitude lower than the most stringent screening criteria (10 mg/L), and therefore, the elevated RPDs have not affected data interpretation. The highest Nitrite-N concentrations among the sample/duplicate pair at GH GA-MW-3 in Q3 (0.0878 - 0.152 mg/L) were lower than the most stringent screening criteria range of 0.2 to 2 mg/L. Poor reproducibility of nitrite-N parameter is likely due to sample inhomogeneity or possible sediment present in the sample. Both results were less than the screening criteria and therefore, not considered as an issue for reporting.





Calculated RPDs for the numerous organic, inorganic, and physical parameters analyzed were otherwise less than 20%. These results indicated low variability in constituent concentrations from sampling and handling.

4.4 Field and Trip Blanks

Detections were reported in nine of the 17 blanks submitted for laboratory analysis in 2022. Concentrations of detectable parameters and laboratory detections limits are provided in Table L, below.

Table L: Summary of Blank Samples with Parameters greater than Detection Limit

Quarter	Location or Date	Parameter	Value	Detection Limit
Field Blanl	(S	•		
	GH_MW-ERSC-1	Ammonia-N	0.0191 mg/L	0.0050 mg/L
2	(April 29, 2022)	Copper	0.24 μg/L	0.20 μg/L
2	RG_MW_FR11B	Barium	0.40 μg/L	0.10 μg/L
	(June 01, 2022)	Copper	0.27 μg/L	0.20 μg/L
	OLL MAN EDOO 4	Barium	0.36 μg/L	0.10 μg/L
3	GH_MW-ERSC-1 (September 08, 2022)	Copper	1.45 µg/L	0.20 μg/L
	(September 00, 2022)	Sodium	0.241 mg/L	0.050 mg/L
		Barium	4.41 µg/L	0.10 μg/L
		Copper	2.32 µg/L	0.20 μg/L
	RG_MW_LC3A (November 21, 2022)	Magnesium	0.0074 mg/L	0.0050 mg/L
		Manganese	0.13 μg/L	0.10 μg/L
		Sodium	0.424 mg/L	0.050 mg/L
		Strontium	0.42 μg/L	0.20 μg/L
		Zinc	1.8 µg/L	1.0 µg/L
		Ammonia-N	0.0059 mg/L	0.0050 mg/L
4		Barium	5.01 μg/L	0.10 μg/L
		Copper	2.33 µg/L	0.20 μg/L
	RG_MW_LC3B	Magnesium	0.0059 mg/L	0.0050 mg/L
	(November 21, 2022)	Manganese	0.17 μg/L	0.10 μg/L
		Sodium	0.410 mg/L	0.050 mg/L
		Strontium	0.35 μg/L	0.20 μg/L
		Zinc	1.6 μg/L	1.0 μg/L
	RG_MW_LCWC1	Ammonia-N	0.0133 mg/L	0.0050 mg/L
	(November 25, 2022)	Barium	0.41 μg/L	0.10 μg/L





Table L (Cont'd): Summary of Blank Samples with Parameters greater than Detection Limit

•	,	-	_	
Quarter	Location or Date	Parameter	Value	Detection Limit
Trip Blanks	Trip Blanks			
	February 09, 2022	Ammonia-N	0.0214 mg/L	0.0050 mg/L
1 March 17, 20	March 17, 2022	Ammonia-N	0.0056 mg/L	0.0050 mg/L
	March 17, 2022	Zinc	2.2 μg/L	1.0 μg/L
2	April 29, 2022	Ammonia-N	0.0755 mg/L	0.0050 mg/L
	May 20, 2022	Ammonia-N	0.0361 mg/L	0.0050 mg/L
	Way 20, 2022	Molybdenum	<u>1.36 μg/L</u>	0.050 μg/L
	June 01, 2022	Ammonia-N	<u>0.101 mg/L</u>	0.0050 mg/L
4	November 04, 2022	Ammonia-N	0.0148 mg/L	0.0050 mg/L

Note:

Value greater than five times the DL are underlined.

Concentrations of all constituents in field and trip blanks were less than the primary screening criteria.

Concentrations measured in field blanks greater than five times the DL included: barium (RG MW LC3A/B in Q4), copper (GH MW-ESRC-1 in Q3 and RG MW LC3A/B in Q4), and sodium (RG MW LC3A in Q4).

Metals detections in blanks were lower than the primary screening criteria. Results for ammonia-N in groundwater samples collected at GHO ranged from the DL (0.050 mg/L) to 0.629 mg/L. The ammonia-N results should be regarded as uncertain due to DL concentrations in blanks ranging from 0.05 to 0.101 mg/L. Both the results and blank detections were lower than the pH-dependant applicable primary screening criteria (1.31 mg/L - 18.5 mg/L) but did not affect data interpretation. The source of the dissolved molybdenum and zinc concentrations in the trip blanks samples is unknown, but the concentrations did not exceed applicable primary screening criteria, and therefore, the trip blank detections did not affect data interpretation.

Previously, the laboratory investigated the source(s) of parameters greater than DLs in blanks; however, they did not identify any cross-contamination (SNC-Lavalin, 2019). Elevated concentrations may have been caused by contamination in the field or from sample bottles or preservatives. The parameters greater than the DLs did not affect data interpretation due to their low concentrations (less than primary screening criteria).

4 5 Ion Balance

GHO groundwater and surface water samples that were excluded from the piper diagram due to an ion balance outside the acceptable range of ±10% range are listed in Table M.





Table M: Summary of Samples Excluded due to Ion Balance Range

ID	Date	Ion Balance %
	2022-07-06	88.3
	2022-07-12	78.3
GH_ER1A	2022-08-03	84.5
	2022-09-14	89.5
	2022-02-15	89.6
	2022-03-15	85.5
	2022-04-04	89.8
OH ED2	2022-05-31	89.2
GH_ER2	2022-06-20	80.2
	2022-07-04	82.7
	2022-08-30	88.2
	2022-11-15	84.5
	2022-05-31	85.3
	2022-07-05	89.4
GH_ERSC4	2022-07-12	76
	2022-08-03	84
	2022-09-07	89.8
GH_LC2	2022-03-22	89.8
Gn_LG2	2022-10-31	86.6
CH I C2	2022-03-22	87.5
GH_LC3	2022-05-09	88.8
GH_MC1	2022-07-12	83.6
GH_WC1	2022-04-26	89.6
GH_WCT	2022-07-12	88.9
	2022-03-30	89.4
	2022-04-26	89.8
	2022-05-03	89.5
GH_WC2	2022-06-22	112
	2022-07-12	88.2
	2022-08-03	88.9
	2022-11-08	80.2
	2022-01-31	89.5
GH_WC4	2022-03-22	87.3
	2022-05-09	89.7
	2022-03-07	87.4
	2022-06-08	88.4
GH_ER1	2022-07-06	89.7
S.I_EKT	2022-07-13	86.8
	2022-08-04	89.4
	2022-11-09	86.7





Table M (Cont'd): Summary of Samples Excluded due to Ion Balance Range

ID	Date	Ion Balance %
	2022-02-01	88.2
	2022-02-22	89.4
	2022-03-15	83.2
	2022-04-06	89.6
	2022-04-11	81.8
	2022-04-27	88.5
GH_ERC	2022-05-04	89.6
	2022-05-31	89.6
	2022-06-14	81.1
	2022-06-28	89
	2022-07-13	87.7
	2022-11-15	82.9
	2022-06-29	88.4
GH_ERSC2	2022-07-13	89.1
	2022-02-08	89.8
	2022-03-07	88.5
GH_TC1	2022-07-13	87
_	2022-08-03	88.8
	2022-11-09	86.2
	2022-06-08	87.3
GH_TC2	2022-08-03	81.5
	2022-09-24	87.4
	2022-03-23	88.4
GH_TC3	2022-07-12	88.9
	2022-10-04	89.8
	2022-02-09	89
GH_GA-MW-3	2022-04-22	87.8
	2022-09-02	89.4
GH_MW_EF1A	2022-02-24	88.9
	2022-01-19	89.6
GH_GA-MW-2	2022-04-04	87.9
GH_GA-MW-4	2022-02-09	85.4
GH_MW-MC-1D	2022-06-13	89
GH_MW-MC-2D	2022-06-15	113
GH_MW-MC-2S	2022-06-15	89.7
RG_DW-01-03	2022-07-18	87.1
DC MAN LC2A	2022-02-11	85
RG_MW_LC3A	2022-05-10	89.6
DC M/M LC2P	2022-02-11	81.9
RG_MW_LC3B	2022-05-10	86.4
RG_MW_LCWC1	2022-02-11	87.2





4.6 Laboratory QA/QC

The detailed results of laboratory QA/QC are included in COAs in Appendix XVI. The quality control reports were reviewed and are summarized below.

Adjustments to the DLs were made to some parameters in select samples. Qualifiers included:

- DL adjusted due to sample matrix effects (e.g., chemical interference, colour, turbidity);
- DL raised due to dilution required for high concentration of test analytes; and
- DL raised due to dilution required for high dissolved solids and/or electrical conductivity.

The raised DLs were consistently less than the screening standards, and therefore, these detection limit qualifiers did not affect data quality and interpretation.

Laboratory QA/QC sample results occasionally yielded a series of qualifiers used to flag limitations in the reportability of the QA/QC result. These qualifiers did not affect data interpretation and included:

- Dissolved concentration exceeds total. Results were confirmed by repeat analysis;
- Dissolved concentration exceeds total for field-filtered metals sample. Metallic contaminants may have been introduced to dissolved sample during field filtration;
- Dissolved Se concentration exceeds total. Positive bias on D-Se suspected due to signal enhancement from volatile selenium species.
- Dissolved Sulfur concentration exceeds total. Negative bias on Total Sulfur suspected due to presence of volatile sulfur species lost during digestion;
- Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable);
- Ion Balance Review: Imbalance is due to interference or non-measured components;
- Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or
 5 times blank level are considered reliable:
- · Reported result verified by repeat analysis;
- TKN may be biased low due to nitrate-N interference. Nitrate-N is greater than 10 times TKN;
- TKN duplication was poor due to interference from high nitrate, which causes negative bias on TKN;
- TKN Matrix Spike recovery was low due to interference from high nitrate, which causes negative bias on TKN;
- Quality control parameter frequency compliance for Matrix Spikes; and
- Quality control parameter frequency compliance for Laboratory Duplicates.

These notes are not unusual for these analyses considering the sample chemistry reflects a mine-influenced groundwater (i.e., select samples have high TDS or nitrate concentrations). The laboratory QA/QC results were considered acceptable for this assessment. A review of the quality assurance portion of the laboratory analytical reports did not identify any additional QA/QC issues.

4.7 Field QA/QC

Water levels could not be measured at GH_POTW09, GH_POTW10, GH_POTW15, GH_POTW17, due to the wellhead configuration. Continuous groundwater level data was unavailable at wells GH_MW-PC (Q3), GH_MW-GHC-1B (Q3, Q4), and GH_MW-ERSC-1 (Q2) due to instrumentation errors. In 2022, there was no pressure transducer in GH_MW-TD, GH_MW-RLP-2. GH_POTW09, GH_POTW10, GH_POTW15, GH_POTW17, and RG_DW-01-03 cannot be instrumented with a pressure transducer due to wellhead configuration. A pressure transducer was installed at well GH_MW_PC4B in Q3. The logger installed in RG_MW_FR11A/11B malfunctioned and was replaced September 2022. Field parameters were collected for all sites and all quarters in 2022.





4.8 QA/QC Summary

The field QA/QC program and laboratory QA/QC results for groundwater samples indicated the data collected are acceptable for use in this report. Calculated RPDs for all parameters in the 14 duplicate samples were less than 50% except for TSS, turbidity, dissolved bromide, nitrate-N, total and TKN. Hold times were met by the laboratory, except for alkalinity, bicarbonate, carbonate, hydroxide and nitrate-N in two batches. Detectable concentrations of ammonia-N and TKN in trip and field blanks were greater than five times the DL. Concentrations of ammonia-N and TKN in samples and blanks were far less than the applicable primary screening criteria and therefore, data interpretation was not affected.

The laboratory quality control reports identified several field-filtered samples with concentrations of dissolved parameters greater than total, but less than the primary screening criteria. No other issues were identified in the laboratory quality control reports. Field measurements and manual and/or continuous water levels were collected from select GHO wells in 2022 and data are considered reliable.





5 Line Creek Operations (LCO)

5.1 Miscellaneous Program Variances

A summary of program variances from the 2022 monitoring programs is provided in Table N. Variances that were not resolved are noted as NR.

Table N: Summary of Miscellaneous Program Variances

Quarter	Well ID	Comment		
Field-Rel	Field-Related Variations			
1 - 3	LC_PIZ1210B	Water levels only, not sampled due to water level below screen. Insufficient volume for sampling.		
	LC_PIZP1001			
1	LC_PIZP1002	Manual water levels not collected (but transducer data was collected).		
	LC_PIZP1003			
	RG_MW_DC1B	Field turbidity value of -0.04 NTU; comment includes bubbles in YSI. A negative turbidity value likely indicates a sensor issue. A negative value is not a valid measurement.		
0	LC_MW20_03	The data suggests the DOC and TOC bottles were mislabelled and incorrectly		
3	LC_MW_ER4B	filtered for the requested analyses.		
	LC_PIZ1206C	Field turbidity 212 NTU. Field notes state Hydrasleeve "full of black sediment" (ref: field notes).		
	LC_PIZP1104	Manual water level was not collected.		
3	LC_PIZ1207A	Dry, no sample.		
Sample/A	Analysis Variations			
1	Trip Blank (March 01)	Dissolved metals are not submitted/analyzed. Routine analysis (including sulphate and turbidity) not performed by laboratory. Routine bottle was reported open and empty upon arrival to the laboratory.		
1	LC_PIZP1101	Due to extremely high turbidity (100,000 NTU), the sample was deemed by a SNC-Lavalin Qualified Professional to be unrepresentative of groundwater. The sample and its duplicate were not reported upon.		
3	RG_MW_DC1A	Lab turbidity 351 NTU vs field turbidity 8.5. Unknown as to why there is such difference.		
3	LC_MW_CP1A	Missed analyses for Ammonia and Total Phosphorus due to laboratory login		
3	LC_MW_CP1B	error.		



Shipping and Handling 5.2

A summary of shipping and handling issues from the 2021 sampling program is provided in Table O.

Table O: LCO - Summary of Shipping and Handling

Quarter	Qualifier	Well ID	Possibly Affected Analytes	Comment
1-4	Hold Time Exceedance	All wells, duplicates, and blanks	pH, ORP	Exceeded ALS recommended hold time of 15 minutes prior to sample receipt. Field measurements analyzed.
1	Hold Time Exceedance	RG_MW_DC1B	Orthophosphate, Nitrate-N, Nitrite-N, Turbidity	Sample exceeded recommended hold time of three days prior to analysis. Sample was received within hold time by the lab.
1	Hold Time Exceedance	WL_MW-15-04-B	Nitrate-N, Nitrite-N	Sample exceeded recommended hold time of three days due to re-analysis, initial testing was conducted within recommended hold time.
2	Hold Time Exceedance	RG_MW_DC1A RG_MW_DC1B	Turbidity	Sample exceeded recommended hold time of three days prior to analysis. Sample was received by the lab less than 24 hours prior to expiry.
2	Hold Time Exceedance	LC_PIZ1210C	Nitrate-N,	Samples exceeded recommended hold time of three days due to re-analysis,
_	Tiola Time Exceedance	WL_MW-15-04-B	Nitrite-N	initial testing was conducted within recommended hold time.
2	Hold Time Exceedance	LC_PIZP1101 Trip Blank (May 20)	TSS, TDS, Turbidity, Orthophosphate, Nitrate-N, Nitrite-N	Samples exceeded recommended hold time of seven days prior to analysis for TDS, TSS and Turbidity and three days for Orthophosphate, Nitrate and Nitrite. Samples were received within hold time by the lab (the next day from sampling).

The recommended hold times for pH and ORP were exceeded for all samples, duplicates, and blanks in 2022. These parameters have a hold time of 15 minutes and measurements are taken in the field. These hold time exceedances did not affect data interpretation, as field measurement for pH and ORP are used for data analysis. The hold time of three days for Nitrate-N and Nitrite-N was exceeded in Q1 and Q2 in samples collected from wells RG MW DC1B and WL MW-15-04-B in Q1 and LC PIZ1210C, WL MW-15-04-B, LC PIZP1101 and Trip Blank (May 20, 2022) in Q2. The holding time exceedances were due to laboratory's inability to analyze within the specified hold time or due to re-analysis. Delays in sample processing could result in potentially biased low concentrations. The concentrations of Nitrate-N and Nitrite-N in samples listed above were less than the most stringent screening criteria. Despite the analysis delays, the results were considered reliable and therefore, the analysis delays did not affect data interpretation within this report.





Turbidity, Orthophosphate, TSS, TDS and BOD parameters do not have applicable primary screening criteria and therefore, exceeding holding times is not a concern for these parameters.

Duplicate Samples 5.3

A total of 118 samples including 9 field duplicates collected in 2022 were included in the LCO QA/QC assessment. A summary of samples with RPD values greater than 20% and concentrations of parameters greater than five times the DL are provided in Table P.

Table P: LCO - Summary of Relative Percent Difference Values for Duplicate Samples

Quarter	Total Number of Duplicate Samples Collected	Well ID	Possibly Affected Analytes	RPD Value
		LC_MW20_01	Dissolved Cadmium	23%
			1 Dissolved Cadmium 23% Turbidity 40% TSS 53% Nitrate-N 105% Total Phosphorus 66% Dissolved Manganese 48% TKN 50% Dissolved Molybdenum 89% 01 Turbidity 23%	40%
1	2			<u>53%</u>
I	2	LC_PIZP1105	Nitrate-N	105%
			Total Phosphorus 66%	<u>66%</u>
			Dissolved Manganese	48%
2	1	LC DI71206C	TKN	50%
_		LC_PIZ1206C	Dissolved Molybdenum 899	89%
4	5	LC_PIZDC0901	Turbidity	23%
	5	RG_MW_DC1A	TSS	31%

Note:

RPD values greater than 50% are underlined.

All other sample analytes had RPD values less than 20%.

Review of the duplicate sample results indicated calculated RPDs for dissolved cadmium (LC MW20-01 in Q1), turbidity (LC PIZP1105 in Q1, and LC PIZDC0901 in Q4), TSS (LC PIZP1102 in Q1, and RG MW DC1A in Q4), nitrate-N (LC PIZP1105 in Q1), total phosphorus (LC PIZP1105 in Q1), dissolved manganese (LC PIZP1105 in Q1), TKN (LC PIZ1206C in Q2) and dissolved molybdenum (LC PIZ1206C in Q2) were greater than acceptable levels (50%). Of the parameters listed in table above, none exceeded the primary screening criteria.

TSS and total phosphorous parameters do not have applicable primary screening criteria and therefore, the RPD results greater 50% were not of concern. The highest nitrate-N concentrations among the sample/duplicate pair at LC_PIZP1105 Q1 (313 µg/L) was at least three orders of magnitude lower than the most stringent screening criteria (10,000 µg/L). The highest concentration for dissolved molybdenum in sample/duplicate pair at LC PIZ1206C Q2 (8.46 µg/L) was less than the most stringent screening criteria (10 µg/L).

The RPD of the numerous organic, inorganic, and physical parameters analyze were less than 10% indicating good reproducibility between the sample and its duplicate results. These results indicated low variability in concentrations from sampling and handling.





5.4 Field and Trip Blanks

Detections were reported in four of the six field blanks submitted for laboratory analysis in 2022. There were no detections in the four trip blanks. Concentrations of detectable parameters and laboratory detections limits are provided in Table Q, below.

Table Q: Summary of Blank Samples with Parameters greater than Detection Limit

Quarter	Location or Date	Parameter	Value	Detection Limit
Field Blank	s			
1	LC_PIZP1101 (March 11, 2022)	Ammonia-N	40.8 μg/L	5.0 μg/L
	LC_PIZP1105 (October 17, 2022)	Ammonia-N	20.6 μg/L	5.0 μg/L
	LC_PIZDC0901	Ammonia-N	23.4 μg/L	5.0 μg/L
4	(October 25, 2022)	Dissolved Molybdenum	0.198 μg/L	0.050 μg/L
	LC_PIZDC1307	Ammonia-N	40.7 μg/L	5.0 μg/L
	(October 26, 2022)	Dissolved Zinc	1.2 μg/L	1.0 μg/L

Note:

Value greater than five times the DL are underlined.

Concentrations of all constituents in field and trip blanks were less than the primary screening criteria.

Four of the 14 total detectable concentrations in the field and trip blanks were greater than five times the DL. Ammonia-N was the most common parameter to be greater than five times the DL, with four instances. Dissolved molybdenum and dissolved zinc each had a single instance.

The concentrations of dissolved molybdenum in the field blank collected on October 25 (0.198 μ g/L) and dissolved zinc collected in the field blank on October 26 (1.2 μ g/L) were orders of magnitude lower than the most stringent primary screening criteria. Based on the above, cross-contamination due to field equipment or travel was unlikely, and the detectable concentrations in blanks did not affect data interpretation.

Ammonia-N was the most common parameter measured in the blank samples with concentrations greater than five times the DL in two samples. Results for ammonia-N in groundwater samples collected at LCO ranged from the DL (0.005 mg/L) to 2.73 mg/L. The concentrations in blanks ranged from the DL (0.005 mg/L) to 8 times the DL (0.0408 mg/L). Both the results and blank detections were lower than the pH-dependant applicable primary screening criteria (1.31 – 18.5 mg/L) and therefore, did not affect data interpretation.

Dissolved metals samples were missing for one field blank and three trip blanks, because the dissolved metals bottles were not submitted to the laboratory.





5.5 Ion Balance

LCO groundwater and surface water samples that were excluded from the piper diagram due to an ion balance outside the acceptable range of $\pm 10\%$ range are listed in Table R.

Table R: Summary of Samples Excluded due to Ion Balance Range

Sample ID	Date	Ion Balance %
	2022-01-10	89
	2022-03-28	89.2
EV ED4	2022-05-10	81.9
EV_ER4	2022-06-14	83.6
	2022-06-20	86.9
	2022-07-11	85.7
	2022-03-30	89.2
	2022-04-19	88.7
	2022-04-24	87.7
	2022-05-03	89.5
LC_DC1	2022-06-14	87.8
	2022-06-28	85
	2022-07-18	81.8
	2022-08-02	89.7
	2022-11-29	88.7
	2022-01-12	87.5
	2022-03-30	89
LC_DC3	2022-06-28	85.4
	2022-08-02	87.7
	2022-10-07	86.5
	2022-01-12	88.9
	2022-04-12	89.5
	2022-04-19	86.6
1.0. D04	2022-04-28	81.6
LC_DC4	2022-06-28	89.2
	2022-07-18	85.6
	2022-08-02	88.7
	2022-09-20	88.5
	2022-04-19	85.6
LC_FRDSDC	2022-05-11	89.5
	2022-07-06	89.2
	2022-03-28	89.2
LC_LC2	2022-07-05	87.8
LO_LOZ	2022-08-03	84.2





Table R (Cont'd): Summary of Samples Excluded due to Ion Balance Range

Sample ID	Date	Ion Balance %
	2022-01-07	88.2
	2022-01-10	85
	2022-01-25	87.3
	2022-03-15	83.6
10.100	2022-04-25	88
LC_LC3	2022-05-05	89.1
	2022-05-31	89.6
	2022-07-11	88.7
	2022-08-03	87.7
	2022-08-23	89.1
LC_LC3GS	2022-11-24	89.5
	2022-01-25	88.5
	2022-02-14	87.3
	2022-03-14	83.9
LC_LC4	2022-04-25	34.8
	2022-05-05	88.8
	2022-07-11	84.3
	2022-08-02	86.2
	2022-04-05	85
	2022-05-09	86.4
	2022-05-24	87.8
LC_LC5	2022-06-06	88.5
	2022-06-14	86.5
	2022-07-05	88.6
	2022-07-11	88.4
	2022-03-22	85.4
	2022-04-11	89.7
	2022-04-19	88
	2022-04-25	87.3
LC_LCDSSLCC	2022-05-09	87.2
	2022-06-06	86.6
	2022-07-19	85.4
	2022-10-18	89.7
	2022-11-01	115





Table R (Cont'd): Summary of Samples Excluded due to Ion Balance Range

Sample ID	Date	Ion Balance %
	2022-01-21	87.4
	2022-01-29	89.7
	2022-02-01	89.4
	2022-02-03	86.8
	2022-02-06	89
	2022-02-08	84.4
	2022-02-14	86.3
LC_LCUSWLC	2022-03-07	85.2
	2022-03-21	88.2
	2022-04-04	84.6
	2022-05-10	82.7
	2022-06-08	85.7
	2022-06-22	88.4
	2022-06-29	88
	2022-11-16	88.5
	2022-01-10	87.6
	2022-01-25	85.8
	2022-02-14	88.5
1.0.14/1.0	2022-03-14	84.8
LC_WLC	2022-06-13	88.7
	2022-07-05	89.7
	2022-09-06	86
	2022-10-12	111
LC MAN CD4A	2022-07-26	86.7
LC_MW_CP1A	2022-10-20	84.8
LC_MW_ER4A	2022-08-03	89.6
LC_MW20_03	2022-06-03	88.6
LC_PIZ1207A	2022-06-02	84.9
LC_PIZ1207B	2022-06-02	89.4
LC DI74240C	2022-03-15	88.6
LC_PIZ1210C	2022-09-26	88
L C DI74044N	2022-10-19	83.4
LC_PIZ1211N	2022-10-19	83.4
LC PIZDC0001	2022-06-10	86.9
LC_PIZDC0901	2022-10-25	114
LC_PIZDC1306	2022-04-17	84
LC_PIZDC1307	2022-08-16	85.7
LC_PIZP1104	2022-03-15	80.2





5.6 Laboratory QA/QC

The detailed results of laboratory QA/QC are included in COAs in Appendix XVI. The quality control reports were reviewed and are summarized below.

Adjustments to the DLs were made to some parameters in select samples. Qualifiers included:

- DL raised due to dilution required for high concentration of test analytes;
- Detection Limit Raised. Analyte detected at comparable level in Method Blank;
- DL raised due to dilution required due to high dissolved solids / electrical conductivity;
- DL adjusted for required dilution; and
- DL adjusted due to sample matrix effects (e.g., chemical interference, colour, turbidity).

The raised DLs were consistently less than screening standards and as such, these DL qualifiers did not affect data interpretation.

Results for laboratory QA/QC samples occasionally yielded a series of qualifiers used to flag limitations in the reportability of the QA/QC result. These qualifiers did not affect data interpretation, and included:

- Reported result verified by repeat analysis;
- Turbidity exceeded upper limit of the nephelometric method. Minimum value reported;
- Ion Balance Reviewed: Imbalance is due to interference or non-measured component;
- TKN duplication was poor due to interference from high nitrate, which causes negative bias on TKN;
- TKN may be biased low due to nitrate-N interference. Nitrate-N is greater than 10 times TKN;
- TKN Matrix Spike recovery was low due to interference from high nitrate, which causes negative bias on TKN:
- Duplicate results outside ALS DQO, due to sample heterogeneity;
- Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable);
- Dissolved concentration exceeds total. Results were confirmed by re-analysis;
- Dissolved concentration exceeds total for field-filtered metals sample. Metallic contaminants may have been introduced to dissolved sample during field filtration;
- Dissolved Se concentration exceeds total. Positive bias on D-Se suspected due to signal enhancement from volatile selenium species.
- Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable;
- Method Blank exceeds ALS DQO. Limits of Reporting have been adjusted for samples with positive hits less than 5x blank level; and
- Quality control parameter frequency compliance for Matrix Spike.

5.7 Field QA/QC

Field parameters were collected from all wells in 2022, except for turbidity for LC PIZDC1404D in Q1 and WL MW-15-04-B in Q4.

Static manual water level measurements were collected from all wells in 2022, except for in Q1 at LC_PIZP1001, LC_PIZP1002, and LC_PIZP1003 and in Q4 at LC_PIZP1004. The manual water level measurement made at LC PIZP1002 on October 14 was erroneous and was remeasured manually during logger deployment on October 25. The October 25 measurement was applied to the data set.

Both the logger and data were lost for LC_PIZ1211N (Q1 to Q4) and for LC_PIZ1212 (Q4). New loggers were installed in both wells.





5.8 QA/QC Summary

A total of 118 samples, nine field duplicates, six field blanks, and four trip blanks were included in the 2022 LCO QA/QC assessment. The field QA/QC program and laboratory QA/QC results for groundwater samples indicated the data collected are acceptable for use in this report, except for the Q1 sample from LC_PIZP1101 which was deemed by a Qualified Professional to be an unrepresentative sample from the targeted aquifer due to extremely high turbidity.

Review of the sample and duplicate RPDs greater than 20% revealed data interpretation was not affected

Hold time exceedances were mostly for pH and ORP, which have hold times of 15 minutes and are measured in the field.

The laboratory quality control reports were reviewed, and the data are considered reliable. Detectable concentrations of parameters in blanks were less than five times the DLs except for ammonia-N, dissolved molybdenum, and dissolved zinc. However, concentrations were less than the applicable primary screening criteria and therefore, data interpretation was not affected.

In addition, the missing field turbidity measurements and single erroneous manual water level are not expected to impact the overall data interpretation.





6 Elkview Operations (EVO)

6.1 Miscellaneous Program Variances

A summary of program variances from the 2022 monitoring program is provided in Table S.

Table S: Summary of Miscellaneous Program Variances

Quarter	Well ID (Sample ID)	Comment	
1	EV_OCgw	Ultra-trace Hg (0.5 ng/L) instead of low-level Hg (5 ng/L).	
	EV_ECgw	Sample not collected because well was frozen.	
	EV_MW_MC3		
	EV_MW_MCgwA		
	EV_ER1gwS		
	RG_MW-03-04		
3	EV_MW_BC1A	Possible DOC and TOC bottles mislabelled and incorrectly filtered for the requested analyses.	
	EV_MW_MC2B	Theoriesty interest for the requested untilyees.	
	EV_MW_SP1A		
	EV_MW_SP1B		
	EV_MW_SP1C		
3	EV_MW_BC2	Possible DOC and TOC bottles mislabelled and incorrectly filtered for the requested analyses.	
	EV_OCgw	Ultra-trace Hg (0.5 ng/L) instead of low-level Hg (5 ng/L).	
4	Duplicate of EV_OCgw	The duplicate pH of 5.41 was deemed to be highly unlikely, given the Sample pH of 8.12. ALS could not find any errors and no additional water sample remained for follow-up analysis. SNC-Lavalin proposes the error originated from a lab transcription error because sample 003 (Field Blank EV_MC6GW) also has a pH of exactly 5.41. The pH value for the duplicate was deemed erroneous by SNC-Lavalin Qualified Personnel (QP) and therefore was excluded from the report.	





6.2 Shipping and Handling Issues

A summary of shipping and handling issues from the 2022 sampling program is provided in Table T.

Table T: Summary of Shipping and Handling Issues

Quarter	Qualifier	Well ID	Possibly Affected Analytes	Comment	
1-4	Hold Time Exceedance	All wells, blanks, and duplicates	pH, ORP	Exceeded ALS recommended hold time of 15 minutes prior to sample receipt. Field measurement recommended.	
		EV_WH50gw (and duplicate)		Recommended hold time of three days exceeded prior to analysis for Orthophosphate and Turbidity; and seven days for TDS and TSS. Laboratory received samples on time; however, samples	
		EV_WH50gw (Trip Blank)	Orthophosphate,		
		EV_WH50gw (Field Blank)	TDS, TSS, turbidity		
	Hold Time	EV_MW_MC2A		were analyzed past hold time by the lab.	
1	Exceedance	RG_MW_WW		December de	
		EV_MW_GC1B			
		EV_HW1 (EV_HM1)		analysis. All samples were received within recommended hold time by the lab; however, all samples were analysed at least three days past recommended hold time.	
		EV_MW_MC1A	TKN		
		EV_MW_MC1B			
		RG_MW_AC1A			
		RG_MW_AC1B			
		RG_MW_WW	Orthophosphate, Turbidity, TSS, TDS	Recommended hold time of three days exceeded prior to analysis for Orthophosphate and Turbidity; and seven days for TDS and TSS. Laboratory received samples on time: however, samples	
				hold time of 15 minutes prior to sample receipt. Field measurement recommended. Recommended hold time of three days exceeded prior to analysis for Orthophosphate and Turbidity; and seven days for TDS and TSS. Laboratory received samples on time; however, samples were analyzed past hold time by the lab. Recommended hold time of three days exceeded prior to analysis. All samples were received within recommended hold time by the lab; however, all samples were analysed at least three days past recommended hold time. Recommended hold time of three days exceeded prior to analysis for Orthophosphate and Turbidity; and seven days for TDS and TSS.	were analyzed past hold time by the lab.
	Hold Time Exceedance	EV_OCgw (and duplicate)		three days exceeded prior to analysis for Orthophosphate and Turbidity. Laboratory received samples on time; however, samples were analyzed past hold time	
2		EV_OCgw (Trip Blank)	Orthophosphate,		
		EV_OCgw (Field Blank)	Turbidity		
		EV_HW1 (EV_HM1)			
		RG_MW_AC1A	- Turbidity	three days exceeded prior to analysis for Turbidity; samples were received less than	
		RG_MW_AC1B			



Table T (Cont'd): Summary of Shipping and Handling Issues

Quarter	Qualifier	Well ID	Possibly Affected Analytes	Comment
	Hold Time Exceedance	EV_GV3gw		Recommended hold time of three days exceeded prior to analysis for Orthophosphate and Turbidity; and seven days for TDS and TSS. Laboratory received samples on time; however, samples were analyzed past hold time by the lab.
3		EV_GV3gwS	Orthophosphate, Turbidity, TDS, TSS	
		EV_MW_BC1A	Orthophosphate, Nitrate, Nitrite,	Recommended hold time of three days exceeded prior to analysis for Orthophosphate, Nitrate, Nitrite and Turbidity. Laboratory received samples on time; however, samples were analyzed past hold time by the lab.
		EV_MW_BC1B	Turbidity	
	Hold Time Exceedance	EV_WH50gw (and duplicate)		Recommended hold time of three days exceeded prior to analysis for Orthophosphate and Turbidity; and seven days for TDS and TSS. Laboratory received samples on time; however, samples were analyzed past hold time by the lab.
4		EV_WH50gw (Trip Blank)	Orthophosphate,	
		EV_WH50gw (Field Blank)	Turbidity,	
		EV_BRgw	TSS, TDS	
		EV_MW_MC1A		
		EV_MW_MC1B		

The recommended hold times for laboratory pH and ORP were exceeded for all samples, duplicates, and blanks in 2022. These parameters have a hold time of 15 minutes and measurements are taken in the field. These hold time exceedances did not affect data interpretation, as field measurement for pH and ORP are used for data analysis. The hold time of three days for dissolved orthophosphate and turbidity for various samples was not met for each quarter in 2022, as well as TKN analysis in Q1, and nitrate-N and nitrite-N in Q3. In addition, the hold time of seven days for TDS and TSS was not met for several samples for each quarter, which could possibly bias concentrations low. Samples were received within the recommended hold time by lab but were not analyzed in time for unknown reasons. Based on comparison to applicable standards in each quarter's QA/QC program, the laboratory results were typical, and not affected by exceeding the hold time.

6.3 **Duplicate Samples**

A total of 195 samples and 17 field duplicates collected in 2022 were included in the EVO QA/QC assessment. A summary of samples with RPD values greater than 20% and concentrations of parameters greater than five times the DL are provided in Table U, below.





Table U: Summary of Relative Percent Difference Values for Duplicate Samples

Quarter	Total Number of Duplicate Samples Collected	Well ID	Possibly Affected Analytes	RPD Value
		EV_OCgw	Ammonia-N	35%
			Chloride	<u>76%</u>
			Fluoride	46%
			Sulphate	<u>74%</u>
			Nitrate-N	67%
1	4	EV_ER1gwS	Barium	42%
1	4		Molybdenum	48%
			Selenium	72%
			Sodium	90%
			Uranium	26%
		EV_MW_BC1A	TDS	26%
		EV_WH50gw	Turbidity	107%
2	4	EV_MW_AQ2	TDS	40%
	4	EV_MW_MC2A	Turbidity	22%
3	5	EV_OCgw	Turbidity	26%
,		FV OCTIVI	рН	40%
		EV_OCgw	Turbidity	<u>52%</u>
4	3	EV / \\/\/\\	Total Alkalinity	<u>55%</u>
		EV_WH50gw	Bicarbonate	<u>55%</u>

Note:

RPD values greater than 50% are underlined.

All other sample analytes had RPD values less than 20%.

Review of the duplicate sample results indicated calculated RPDs were greater than acceptable levels (50%) for chloride, sulphate, nitrate-N, selenium and sodium (Q1 EV ER1gwS), turbidity (Q1 EV WH50gw, Q4 EV OCgw), and total alkalinity and bicarbonate (Q4 EV HW50gw). Total alkalinity and bicarbonate do not have applicable primary screening criteria and, therefore are not considered a significant concern. All other parameters were at least one order of magnitude less than the applicable primary screening criteria and as such, not identified as issues for reporting, except for selenium at EV ER1gwS. The concentrations of this sample and its duplicate for selenium were 3.58 µg/L and 7.62 µg/L, respectively, which is less than the DW standard of 10 µg/L. A review of selenium concentrations in groundwater at this location over the past three years indicated that the Q1 sample concentration of 3.58 µg/L is lower than historical concentrations. The average concentration of dissolved selenium over the past three years is 8.88 µg/L (excluding the Q1 2022 sample and any duplicates). The dissolved concentration in Q1 of 2020 and 2021 was 9.74 μg/L and 13 μg/L, respectively. This indicates the sample concentration is potentially biased low, and the duplicate is a more representative sample, and therefore, the duplicate value was used for reporting. This low bias was also observed for sulphate between the sample EV ER1gwS and its duplicate (34.1 and 74 µg/L, respectively); however, both were an order of magnitude lower than the lowest applicable standard, and therefore, was not considered a significant concern. Nonetheless, sulphate is an OC, so a conservative approach was taken and the duplicate value's higher concentration was used for reporting.



Although the large number of elevated RPDs between EV_ER1gwS sample and its duplicate may indicate improper sampling techniques, the calculated RPDs for most analytes were less than 20%. These results indicated low variability in constituent concentrations from sampling and handling.

6.4 Field and Trip Blanks

Detections were reported in six of fifteen Field Blanks and thirteen of fifteen Trip Blanks submitted for laboratory analysis in 2022. Concentrations of detectable parameters and laboratory detections limits are provided in Table V, below.

Table V: Summary of Blank Samples with Parameters greater than Detection Limit

Quarter	Location or Date	Parameter	Value	Detection Limit
Field Blanks				
	EV_OCgw (March 13)	Ammonia-N	0.0097 mg/L	0.0050 mg/L
4		Barium	0.38 μg/L	0.10 μg/L
1	EV_WH50gw	Copper	0.79 μg/L	0.20 μg/L
	(March 04)	Sodium	0.265 mg/L	0.050 mg/L
		Strontium	0.21 μg/L	0.20 μg/L
	EV_MW_AQ2	Aluminum	1.6 μg/L	1.0 μg/L
	(April 24)	Copper	0.31 μg/L	0.20 μg/L
		Aluminum	1.1 μg/L	1.0 μg/L
2		Copper	0.61 μg/L	0.20 μg/L
	EV_MW_BC1A (May 01)	Iron	19 μg/L	10 μg/L
	(Way OT)	Lead	0.171 μg/L	0.050 μg/L
		Tin	0.13 μg/L	0.10 μg/L
2	EV_MW_GC1B	Nitrate-N	0.0101 mg/L	0.0050 mg/L
3	(August 16)	Zinc	1.7 μg/L	1.0 μg/L
		Barium	0.29 μg/L	0.10 μg/L
	5)/ MM/ B00	Copper	0.69 µg/L	0.20 μg/L
4	EV_MW_BC3 (November 13)	Magnesium	0.0064 mg/L	0.0050 mg/L
	(November 13)	Manganese	0.14 μg/L	0.10 μg/L
		Sodium	0.187 mg/L	0.050 mg/L
Trip Blanks	·			·
	January 30	Ammonia-N	0.0131 mg/L	0.0050 mg/L
	January 30	TKN	0.094 mg/L	0.050 mg/L
		Ammonia-N	0.0307 mg/L	0.0050 mg/L
	February 24	TKN	0.071 mg/L	0.050 mg/L
1		Aluminum	3.4 µg/L	1.0 µg/L
	March 04	Ammonia-N	0.0222 mg/L	0.0050 mg/L
	IVIAICH U4	Zinc	2.2 µg/L	1.0 µg/L
	March 12	Ammonia-N	0.0124 mg/L	0.0050 mg/L
	March 13	TKN	0.124 mg/L	0.050 mg/L





Table V (Cont'd): Summary of Blank Samples with Parameters greater than Detection Limit

Quarter	Location or Date	Parameter	Value	Detection Limit
		Ammonia-N	0.0248 mg/L	0.0050 mg/L
	April 24	Aluminum	1.0 μg/L	1.0 μg/L
		Sodium	0.071 mg/L	0.050 mg/L
2	May 15	Ammonia-N	0.0541 mg/L	0.0050 mg/L
	May 20	Ammonia-N	0.0228 mg/L	0.0050 mg/L
	May 20	Molybdenum	0.144 μg/L	0.050 μg/L
	Assessed O.A	Ammonia-N	0.0248 mg/L	0.0050 mg/L
	August 04	Lead	0.056 μg/L	0.050 μg/L
3	August 15	Ammonia-N	0.0059 mg/L	0.0050 mg/L
3	A	Ammonia-N	0.0239 mg/L	0.0050 mg/L
	August 16	TKN	0.062 mg/L	0.050 mg/L
	September 09	Ammonia-N	0.0154 mg/L	0.0050 mg/L
	October 04	Ammonia-N	0.0182 mg/L	0.0050 mg/L
4	November 13	Ammonia-N	0.0788 mg/L	0.0050 mg/L
	INOVERTIBEL 13	TKN	0.085 mg/L	0.050 mg/L

Notes:

Values greater than five times the RDL are underlined.

Concentrations of all constituents in field and trip blanks were less than the primary screening criteria.

Sodium was the only parameter measured in the Field Blank (Q1) and ammonia-N was the only parameter measured in the Trip Blank samples (Q1, Q2 and Q4) with concentrations greater than five times the DL in 2022. Results for ammonia-N in groundwater samples collected at EVO ranged from the DL (0.0050 mg/L) to 1.47 mg/L. As a result, the ammonia-N groundwater results may not be representative of formation water quality, since the source of the ammonia-N concentrations in the blank samples is not known, and concentrations in blanks ranged from the DL (0.05 mg/L) to eight times the DL (0.0788 mg/L) and were over the same order of magnitude as the sample results. Both the results and blank detections were less than the pH-dependant applicable primary screening criteria (3.7 mg/L - 18 mg/L), and therefore, the ammonia-N detections in the trip blank and field blank samples have not affected the data interpretation.

Previously, the laboratory conducted an investigation into the source(s) of parameters above DLs in blanks; however, sample cross-contamination was not found (SNC-Lavalin, 2019). Elevated concentrations may have been caused by contamination in the field or from sample bottles or preservatives. The ammonia-N concentrations greater than the DLs did not affect data interpretation due to their low concentrations at less than the primary screening criteria.



6.5 Ion Balance

EVO groundwater and surface water samples that were excluded from the piper diagram due to an ion balance outside the acceptable range of ±10% range are listed in Table W.

Table W: Summary of Samples Excluded due to Ion Balance Range

Sample ID	Date	Ion Balance %
FV 001	2022-04-12	87.6
EV_OC1	2022-06-07	88.7
EV OCCW	2022-03-13	81.9
EV_OCGW	2022-10-28	81.5

6.6 Laboratory QA/QC

The detailed results of laboratory QA/QC are included in COAs in Appendix XVI. The quality control reports were reviewed and are summarized below.

Adjustments to the DLs were made to some parameters in select samples. Qualifiers included:

- DL raised due to dilution required due to high concentration of test analytes;
- DL adjusted due to sample matrix effects (e.g., chemical interference, colour, turbidity);
- DL adjusted for required dilution; and
- DL raised due to dilution required due to high dissolved solids/electrical conductivity.

The raised DLs were consistently less than the screening standards and as such, these DL qualifiers did not affect data quality.

Results for laboratory QA/QC samples occasionally yielded a series of qualifiers used to flag limitations in the reportability of the QA/QC result. The laboratory has indicated the following qualifiers have not affected data interpretation, and include:

- Reported result verified by repeat analysis;
- Dissolved concentration exceeds total. Results were confirmed by re-analysis;
- Lab duplicates RPDs do not meet the DQO;
- · Lab Control Sample recovery less than lower control limit;
- Matrix Spike recoveries less than lower data quality objective;
- Method blank exceeds ALS DQO. Associated samples results which are less than Limit of Reporting
 or greater than five times blank level are considered reliable;
- Method Blank exceeds ALS DQO. Limits of Reporting have been adjusted for samples with positive hits less than 5x blank level;
- Data quality objective was marginally exceeded (by less than 10% absolute) for less than 10% of analyte in a multi-element scan / multi-parameter scan (considered acceptable);
- Ion Balance Reviewed: Imbalance is due to interference or non-measured component;
- TKN results may be biased low due to nitrate-N interference. nitrate-N is greater than 10 times TKN;
- TKN matrix spike recovery was low due to interference from high nitrate, which causes negative bias on TKN:
- TKN duplication was poor due to interference from high nitrate, which causes negative bias on TKN;
- · Quality control parameter frequency compliance for Matrix Spikes; and
- Quality control parameter frequency compliance for Laboratory Duplicates.





These notes are not unusual for these analyses considering the chemistry of the samples reflect mine-influenced groundwater (i.e., select samples have high TDS or nitrate-N concentrations). Ion balance review was only noted at EV_WF_SW in Q1 (84.2%) and Q3 (121%). Ion imbalances were not observed in 2022 samples collected at this well and this appears to have been an isolated occurrence. Concentrations of most analytical results at this well were less than the primary screening criteria, except for manganese and iron; therefore, the ion imbalance is not inferred to affect data interpretation. The results of the laboratory QA/QC were considered acceptable for the purpose of this assessment. A review of the quality assurance portion of the laboratory analytical reports did not identify any additional QA/QC issues.

6.7 Field QA/QC

Field parameters and quarterly water level measurements were collected from all wells in 2022, except for Q1 EV_ECgw, which was frozen.

Continuous groundwater level data was unavailable at: EV_OCgw between August 15 and October 28, 2022, due to instrumentation errors; RG_MW_GCA between September 14 and October 28, as the logger was not started; EV_BALgw between September 16 and October 26, as the logger was not started.

New Solinst Levelogger pressure transducers were installed in: RG_MW-03-04 on April 7, 2022, as the previous logger malfunctioned; in EV_MW_MC4 on May 1, 2022; and in EV_HW1 (EV_HM1) on April 16, 2022.

Due to well decommissioning, the loggers EV_MCgwS and EV_MCgwD were removed on July 23, 2022.

6.8 QA/QC Summary

The field QA/QC program and laboratory QA/QC results for groundwater samples indicated the data collected are acceptable for use in this report. Several parameters in three field duplicate samples had calculated RPDs greater than 50%; however, the parameters either do not have an applicable primary screening criteria or concentrations in samples were less than the applicable primary screening criteria. Therefore, the RPDs greater than acceptable levels were not considered to affect data interpretation, except for dissolved selenium and sulphate from the Q1 sample from EV_ER1gwS. Noted hold time exceedances were primarily for parameters that required re-analysis, with the exception of TSS and TDS at select wells, where analysis of these parameters were overlooked by the laboratory.

Select parameters were detected in 19 of the 30 trip and field blanks collected in 2022. Of the detectable parameters, concentrations of sodium in one field blank and ammonia-N in three trip blanks were greater than five times the DL. The concentrations of these parameters in samples and blanks were less than the applicable screening criteria or the parameter(s) did not have an applicable screening criterion. The detection of parameters in blanks did not affect data interpretation.

The laboratory quality control reports were reviewed, and the data are considered reliable.

Although continuous water levels could not be obtained from select monitoring wells, manual measurements were collected, and the 2022 data are considered reliable.



Coal Mountain mine (CMm)

The QA/QC program included the quarterly samples from 19 RGMP/SSGMP monitoring wells, along with an additional 18 samples from RGMP/SSGMP monitoring wells sampled to support CMm project-specific monitoring programs. Six extra Q4 2022 groundwater samples were collected from CM MW7-SH, CM MW7-DP, and CM-MW8 as part of the 34 Pit Study, and 12 extra samples were collected from CM MW5-SH and CM MW5-DP in Q4 2021 and Q1 2022 as part of the Corbin Dam Construction Project. These extra samples were evaluated with the same rigour as the quarterly samples and are included in the sections below.

7 1 Miscellaneous Program Variations

A summary of program variations from the 2022 monitoring program is provided in Table X.

Table X: Summary of Miscellaneous Program Variations

Quarter	Well ID	Comment
1	CM_MW4-SH/DP, CM_MW6-SH/DP, CM_MW7-SH, CM_MW8	In 2022, wells were sampled based on the recommendations presented in the 2021 SSGMP Update.

Shipping and Handling 7.2

A summary of shipping and handling issues from the 2022 sampling program is provided in Table Y.

Table Y: Summary of Shipping and Handling Issues

Qualifier	Quarter	Well ID	Possibly Affected Analytes	Comments
Hold Time Exceedance	1-4	All wells, duplicates and blanks	pH, ORP	Exceeded ALS recommended hold time of 15 minutes prior to sample receipt. Field measurement recommended.
Hold Time Exceedance	3	CM_MW4-SH	Turbidity, Orthophosphate, Nitrate-N, Nitrite-N	Exceeded ALS recommended hold time of
		CM_MW4-DP		three days prior to analysis. Laboratory received samples on time but was
		CM_MW_AG1B		analyzed on day 4.
		CM_MW6-DP	Nitrate-N, Nitrite-N	Exceeded ALS recommended hold time of three days prior to analysis. Laboratory received samples on time, but sample was analyzed on day 6.

The recommended hold times for laboratory pH and ORP were exceeded for all samples, duplicates, and blanks in 2022. These parameters have a hold time of 15 minutes and measurements are taken in the field. These hold time exceedances did not affect data interpretation, as field measurement for pH and ORP are used for data analysis. The hold time of three days for turbidity, orthophosphate and Nitrate-N, Nitrite-N was not met for Q3 for the samples presented in Table Y. Samples were received within recommended hold time by the lab; however, for unknown reasons extraction and analysis were delayed. Despite these delays, the impact on the samples was deemed to be minimal, either because the analyte has no, or was far less than, any applicable standard.



7.3 **Duplicate Samples**

A total of 66 samples and nine field duplicates collected in 2022 were included in the CMm QA/QC assessment. A summary of samples with RPD values greater than greater than 20% and concentrations of parameters greater than five times the DL are provided in Table Z, below.

Table Z: Summary of Relative Percent Difference Values for Duplicate Sample

Quarter	Total Number of Duplicate Samples Collected	Well ID	Possibly Affected Analytes	RPD Value	
			Turbidity	46%	
1	2	CM_MW1-DP	Total Suspended Solids	<u>69%</u>	
			Total Phosphorous - P	33%	
			Turbidity	34%	
		CM MWG DD	Ortho-Phosphate	<u>78%</u>	
		CM_MW6-DP	Total Phosphorous - P	22%	
	3		Molybdenum	28%	
2			Turbidity	29%	
		CM_MW1-OB	Nitrate (N)	98%	
			Nitrite (N)	48%	
		OM MANAGO CILI	Chloride	38%	
		CM_MW3-SH	Copper	<u>75%</u>	
		CM_MW2-SH	Selenium	25%	
			Chloride	39%	
3	2	ONA NAVAIO	Total Phosphorous - P	49%	
		CM_MW8	Iron	27%	
			Molybdenum	21%	
		CM_MW1-DP	Selenium	92%	
4	2	ONA NAVA A CAR	Sulphate	21%	
		CM_MW_AG1B	Nitrate (N)	45%	

Notes:

RPD values greater than 50% are underlined. All other sample analytes had RPD values less than 20%.

Review of the duplicate sample results indicated calculated RPD for TSS (Q1, CM MW1-DP), orthophosphate (Q2 CM MW6-DP), nitrate-N (Q2, CM MW1-OB), copper (Q2, CM MW3-SH) and selenium (Q4, CM_MW1-DP) were greater than the acceptable level (50%).

TSS and orthophosphate parameters do not have applicable primary screening criteria, and therefore, the RPD results greater than 50% do not affect the interpretation. The highest nitrate-N concentration among the samples/duplicates pair at CM MW1-OB in Q2 (0.570 mg/L) was one order of magnitude lower than the applicable primary screening criteria (10 mg/L). The highest copper concentrations among the samples/duplicates pair at CM_MW3-SH in Q2 (3.30 µg/L) was 6 times lower than the most stringent primary screening criteria (20 μg/L). The highest selenium concentration for the duplicates pair (1.16 μg/L), which was reported at CM MW1-DP, was an order of magnitude lower than the applicable primary screening criteria (10 mg/L). Based on the concentrations of parameters shown greater than, the RPD values that were greater than 50% are not inferred to affect interpretation.





Calculated RPDs for the numerous organic, inorganic, and physical parameters analyzed, were otherwise less than 50%. These results indicate low variability in constituent concentrations from sampling, handling, and laboratory analyses.

7.4 Field and Trip Blanks

Detections were reported in two of five field blanks and two of five trip blanks submitted for laboratory analysis in 2022. Concentrations of detectable parameters and laboratory detections limits are provided in Table AA, below.

Table AA: Summary of Blank Samples with Parameters greater than Detection Limit

Quarter	Location or Date	Parameter	Value	Detection Limit
Field Blanks				
3	CM_MW2-SH (July 13, 2022)	Kjeldahl Nitrogen-N	0.073 mg/L	0.050 mg/L
		Barium	0.22 μg/L	0.10 μg/L
4	CM_MW_AG1B	Copper	0.95 μg/L	0.20 μg/L
4	(October 6, 2022)	Sodium	0.175 μg/L	0.050 μg/L
		Tin	0.11 μg/L	0.10 μg/L
Trip Blanks				
		Ammonia-N	0.0225 mg/L	0.0050 mg/L
1	March 3, 2022	Kjeldahl Nitrogen-N	0.135 mg/L	0.050 mg/L
		Molybdenum	<u>3.98</u> μg/L	0.050 μg/L
5	October 26, 2022	Kjeldahl Nitrogen-N	0.053 mg/L	0.050 mg/L

Notes:

Values greater than five times the RDL are underlined.

Concentrations of Kjeldahl Nitrogen-N and dissolved molybdenum exceeded primary screening criteria in the Q3 field and Q1 trip blanks, respectively. All other constituents in field and trip blanks were less than the primary screening criteria.

Overall detectable concentrations in the field and trip blanks were within five times the DL except for dissolved molybdenum.

Dissolved molybdenum in the March 3, 2022 trip blank groundwater sample was five times the RDL, but two times less than the lowest applicable standard (CSR DW, 10 μ g/L). The results were verified by repeat laboratory analysis. There is no indication the source of the dissolved molybdenum impacted the other groundwater samples included in the shipment (CM_MW3-SH, CM_MW3-DP, CM_MW10, CM_NNP2). Because the concentration in the blank did not exceed the applicable primary screening criteria, the blank detection did not affect data interpretation.

Previously, the laboratory investigated the source(s) of parameters greater than DLs in blanks; however, they did not identify any cross-contamination (SNC-Lavalin, 2019). Elevated concentrations may have been caused by contamination in the field or from sample bottles or preservatives. The parameters greater than the DLs did not affect data interpretation due to their low concentrations (less than the primary screening criteria).





7.5 Ion Balance

CMm groundwater and surface water samples that were excluded from the piper diagram due to an ion balance outside the acceptable range of ±10% range are listed in Table BB.

Table BB: Summary of Samples Excluded due to Ion Balance Range

Sample ID	Date	lon Balance %
0.4.400	2022-06-29	88.3
CM_AG2	2022-09-08	83.1
	2022-01-11	87
04.004	2022-04-26	89.8
CM_CC1	2022-05-10	89
	2022-06-14	81.8
CM_CCHW	2022-06-30	88.7
	2022-01-11	86.2
	2022-02-02	85.7
CM CCOFF	2022-03-15	88.2
CM_CCOFF	2022-06-07	88.8
	2022-06-15	86.2
	2022-11-08	88.6
	2022-02-22	87.6
	2022-03-15	88.3
	2022-04-12	88.6
	2022-05-03	89.4
CM_MC1	2022-06-14	88.9
	2022-07-05	89.7
	2022-09-13	84.9
	2022-10-11	86
	2022-10-18	89.5
	2022-01-11	88
	2022-03-15	89.2
	2022-04-26	89
	2022-06-07	88.3
	2022-07-05	89.4
CM_MC2	2022-07-12	112
	2022-07-26	87.4
	2022-10-11	87.2
	2022-10-25	88
	2022-11-22	88
	2022-12-20	116





Table BB (Cont'd): Summary of Samples Excluded due to Ion Balance Range

Sample ID	Date	lon Balance %
	2022-08-03	81.9
CNA NACA	2022-09-06	84.7
CM_MC4	2022-09-08	86
	2022-11-02	85.6
CM_ND2	2022-02-02	87.8
CM_NS1	2022-09-14	86.5
	2022-05-17	89.1
CM_PC2	2022-07-19	84.6
	2022-08-02	83.3
	2022-01-11	86.2
	2022-03-15	89
	2022-04-26	88.5
OM ODD	2022-05-03	89.8
CM_SPD	2022-05-10	87.9
	2022-06-07	83.8
	2022-07-26	88.2
	2022-11-17	89.4
	2022-04-29	88.4
CM_WD	2022-06-08	89.1
	2022-07-06	117
CM_WD18	2022-09-14	85.5
CM_MW10	2022-07-20	87.8
CM_MW2-SH	2022-07-13	88.6
CM_MW3-DP	2022-10-13	86.2
CM_MW4-DP	2022-10-13	85.7
CM_MW5-DP	2022-01-10	89.2
CM_MW5-SH	2022-01-10	85.4
CM_MW6-DP	2022-05-19	87.4
CM_MW7-DP	2022-06-02	84.7

7.6 Laboratory QA/QC

The detailed results of laboratory QA/QC are included in COAs in Appendix XVI. The quality control reports included in the laboratory COAs were reviewed and are summarized below.

Adjustments to the DLs were made to some parameters in select samples. Qualifiers included:

- DL adjusted due to sample matrix effects (e.g., chemical interference, colour, turbidity);
- DL adjusted for required dilution; and
- DL raised due to dilution for high dissolved solids and/or electrical conductivity.

The raised DLs were consistently less than the screening standards and as such these detection limit qualifiers did not affect data interpretation.





Laboratory QA/QC sample results occasionally yielded a series of qualifiers used to flag limitations in the reportability of the QA/QC result. These qualifiers did not affect data interpretation and included:

- · Reported result verified by repeat analysis;
- Dissolved concentration exceeds total. Results were confirmed by re-analysis;
- TKN results may be biased low due to nitrate-N interference. nitrate-N is greater than 10 times TKN;
- TKN matrix spike recovery was low due to interference from high nitrate, which causes negative bias on TKN:
- Matrix spike recovery could not be accurately calculated due to high analyte background in sample;
- Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or
 5 times blank level are considered reliable;
- · Exceeded ALS recommended hold time prior to analysis; and
- · Hold time exceeded for re-analysis or dilution, but initial testing was conducted within hold time.

These notes are not unusual for these analyses considering the chemistry of the samples reflecting mine-influenced groundwater (i.e., select samples have high TDS or nitrate-N concentrations). The results of the laboratory QA/QC were considered acceptable for the purpose of this assessment. A review of the quality assurance portion of the laboratory analytical reports did not identify any additional QA/QC issues.

7.7 Field QA/QC

Field parameters and quarterly (Q2 to Q4 at CM_MW4-SH/DP, CM_MW6-SH/DP, CM_MW7-SH, and CM_MW8) water level measurements were collected from all wells in 2022. Monitoring wells CM_MW4-SH/DP were observed to be under flowing artesian conditions during each quarterly visit. Monitoring wells CM_MW1-OB/SH/DP, CM_MW2-SH, CM_MW3-SH/DP, CM_MW4-SH/DP, CM_MW5-SH/DP and CM_MW_AG1A/B had pressure transducers installed prior to 2022 and have continuous water levels measured throughout 2022. Monitoring wells CM_MW6-SH/DP, CM_MW7-SH/DP, CM_MW8, CM_MW9, CM_MW10 had pressure transducers installed in Q4 2022.

7.8 QA/QC Summary

The field QA/QC program and laboratory QA/QC results for groundwater samples indicated the data collected are acceptable for the analyses conducted in this report. Calculated RPDs for the eight duplicate samples collected were less than 50% except for TSS, ortho-phosphate, nitrate-N, copper, and selenium in separate duplicate samples. Hold time exceedances were only identified for laboratory pH and ORP. The results reflect low variability for handling and sampling for the program.

The laboratory quality control reports were reviewed, and the data are considered reliable. Detectable concentrations of parameters in field blanks were less than five times the detection limits. Detectable concentrations of parameters in trip blanks were less than five times the detection limits, except for molybdenum in one trip blank. The concentrations of molybdenum in the blank did not exceed the applicable primary screening criteria, and therefore, did not affect data interpretation. Field measurements and manual and/or continuous water levels were collected from select CMm wells in 2022 and data are considered reliable.





8 References

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Appendix XIV

Tables

TABLE XIV – A: Summary of "For Evaluation" Wells – Installation Details (Background)

TABLE XIV – B: Summary of "For Evaluation" Wells – Installation Details (FRO)

TABLE XIV – C: Summary of "For Evaluation" Wells – Installation Details (GHO)

TABLE XIV – D: Summary of "For Evaluation" Wells – Installation Details (LCO)

TABLE XIV – E: Summary of "For Evaluation" Wells – Installation Details (EVO)

Borehole Logs

- Background Borehole Logs Wells For Evaluation
- Fording River Operations Borehole Logs Wells For Evaluation
- Greenhills Operations Borehole Logs Wells For Evaluation
- Line Creek Operations Borehole Logs Wells For Evaluation
- Elkview Operations Borehole Logs Wells For Evaluation



Tables

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TABLE XIV – E: Summary of "For Evaluation" Wells – Installation Details (EVO)

TABLE XIV - A: Summary of "For Evaluation" Wells - Installation Details (Background)

Area	Count	Well ID	Monitoring Program ^a	Well Type	Final Borehole Log		inates IAD 83)	Screened Formation
					(Y/N/Draft)	Easting	Northing	
	1	FR_MW22_CH3A	For Evaluation for RGMP	Monitoring	N	658263	5555526	-
	2	FR_MW22_CH3B	For Evaluation for RGMP	Monitoring	N	658262	5555526	-
Upgradient of Study Area 1 (FRO)	3	FR_MW22_FRX3465	For Evaluation for RGMP	Monitoring	N	653635	5558523	-
	4	FR_MW22_FRX3534	For Evaluation for RGMP	Monitoring	N	656260	5554565	-
	5	FR_MW22_KCWD1A	For Evaluation for RGMP	Monitoring	Draft	657212	5560555	Bedrock (Dolostone)
	6	FR_MW22_KCWD1B	For Evaluation for RGMP	Monitoring	Draft	657213	5560555	Sand and Gravel
	7	LC_MW22_LC1-1ABR	For Evaluation for RGMP	Monitoring	Draft	661957	5538175	Bedrock (Shale)
Upgradient of Study Areas 5/6	8	LC_MW_HC-1A	For Evaluation for RGMP	Monitoring	Y	663089	5535742	Gravel
(LCO)	9	LC_MW_HC-2A	For Evaluation for RGMP	Monitoring	Υ	662980	5535814	Cobble and Gravel
	10	LC_MW_HC-3A	For Evaluation for RGMP	Monitoring	Y	662800	5535787	Gravel and Clay
Upgradent of Study	11	EV_MW22_GV5A	For Evaluation for RGMP	Monitoring	Draft	659300	5523750	Sand and Gravel
Area 7 (EVO)	12	EV_MW22_GV5B	For Evaluation for RGMP	Monitoring	Draft	659299	5523749	Sand and Gravel
Upgradient of Study	13	RG_MW_AC1A	For Evaluation for RGMP	Monitoring	Y	663653	5502845	Silty Clay
Area 10 (EVO)	14	RG_MW_AC1B	For Evaluation for RGMP	Monitoring	Y	663654	5502845	Sand and Gravel

Draft borehole data is subject to change.

Also considered For Evaluation for Site-Specific Groundwater Monitoring Program (SSGMP)



a: RGMP denotes Regional Groundwater Monitoring Program.

[&]quot;-" denotes data not available.

TABLE XIV - B: Summary of "For Evaluation" Wells - Installation Details (FRO)

Area	Count	Well ID	Monitoring Program ^a	Well Type	Final Borehole Log (Y/N/Draft)	Coord (UTM N	inates IAD 83)	Screened Formation
					(I/N/Diait)	Easting	Northing	
	1	FR_MW23_HMW2_V2	For Evaluation for SSGMP	Monitoring	N	652643	5566630	-
	2	FR_MW23_HMW2_BR	For Evaluation for SSGMP	Monitoring	N	652643	5566630	-
	3	FR_MW22_HC1_1A	For Evaluation for SSGMP	Monitoring	Y	652233	5566416	Bedrock (Siltstone)
	4	FR_MW-HC1A	For Evaluation for SSGMP	Monitoring	Y	652261	5566589	Sand and Gravel
Henretta Creek Watershed	5	FR_MW-HC1B	For Evaluation for SSGMP	Monitoring	Y	652262	5566590	Gravel (Waste Rock)
	6	FR_MW-HC2A	For Evaluation for SSGMP	Monitoring	Y	652352	5566598	Gravel
	7	FR_MW-HC2B	For Evaluation for SSGMP	Monitoring	Υ	652352	5566597	Gravel and Cobbles (Waste Rock
	8	FR_MW-HC3A	For Evaluation for SSGMP	Monitoring	Y	652580	5566548	Gravel (Colluvium)
	9	FR_MW-HC3B	For Evaluation for SSGMP	Monitoring	Y	652581	5566547	Gravel (Waste Rock)
	10	FR_MW-TB1A	For Evaluation for SSGMP	Monitoring	Draft	650891	5565248	Silt
	11	FR_MW-TB1B	For Evaluation for SSGMP	Monitoring	Draft	650901	5565248	Sand and Gravel
	12	FR_MW-TB2A	For Evaluation for SSGMP	Monitoring	Draft	650908	5565253	Sand and Gravel
	13	FR_MW-TB2B	For Evaluation for SSGMP	Monitoring	Draft	650907	5565251	Sand and Gravel
	14	FR_MW-TB2C	For Evaluation for SSGMP	Monitoring	N	650904	5565252	Gravel
	15	FR_MW-TB3A	For Evaluation for SSGMP	Monitoring	N	651011	5565267	Sandy Clay
	16	FR MW-TB3B	For Evaluation for SSGMP	Monitoring	N	651009	5565268	Sand
	17	FR_MW-TB3C	For Evaluation for SSGMP	Monitoring	N	651009	5565271	Gravel
	18	FR MW-TB5A	For Evaluation for SSGMP	Monitoring	N	650872	5565220	Sand and Gravel
		_	For Evaluation for SSGMP					Sand and Gravel
	19	FR_MW-TB5B		Monitoring	N	650871	5565222	
	20	FR_MW-TB6A	For Evaluation for SSGMP	Monitoring	N	650860	5565176	Sand and Gravel
	21	FR_MW-TB6B	For Evaluation for SSGMP	Monitoring	N	650857	5565175	Sand
	22	FR_MW-TB8A	For Evaluation for SSGMP	Monitoring	N	650919	5565200	Sand and Gravel
	23	FR_MW-TB8B	For Evaluation for SSGMP	Monitoring	N	650918	5565198	Gravel
	24	FR_MW-TB9A	For Evaluation for SSGMP	Monitoring	N	650848	5565252	Gravelly Clay
	25	FR_MW-TB9B	For Evaluation for SSGMP	Monitoring	N	650846	5565251	Gravel
Fording Diver	26	FR_MW22_TBSTSF1A	For Evaluation for SSGMP	Monitoring	N	651391	5565345	-
Fording River Watershed	27	FR_MW22_TBSTSF1B	For Evaluation for SSGMP	Monitoring	N	651391	5565345	<u>-</u>
	28	FR_MW22_TBSTSF1C	For Evaluation for SSGMP	Monitoring	N	651391	5565345	-
	29	FR_MW22_POTW1A	For Evaluation for SSGMP	Monitoring	Y	651190	5565188	Silty Sand and Silt and Sand
	30	FR_MW22_POTW1B	For Evaluation for SSGMP	Monitoring	Y	651189	5565188	Gravelly Sand and Sand and Sil
	31	FR_MW22_POTW1C	For Evaluation for SSGMP	Monitoring	Y	651189	5565187	Sandy Gravel
	32	FR_MW22_POTW2A	For Evaluation for SSGMP	Monitoring	Y	651040	5565024	Sand
	33	FR_MW22_POTW2B	For Evaluation for SSGMP	Monitoring	Y	651039	5565021	Sand and Gravel and Sand
	34	FR_MW22_POTW3A	For Evaluation for SSGMP	Monitoring	Y	651145	5565041	Siltstone and Weathered Bedroc
	35	FR_MW22_POTW3B	For Evaluation for SSGMP	Monitoring	Y	651148	5565042	Sand and Gravel
	36	FR_MW22_POTW4A	For Evaluation for SSGMP	Monitoring	N	651182	5565097	-
	37	FR_MW22_POTW4B	For Evaluation for SSGMP	Monitoring	N	651182	5565097	-
	38	FR_MW22_POTW5	For Evaluation for SSGMP	Monitoring	N	651099	5565084	-
	39	FR_MW22_POTW6A	For Evaluation for SSGMP	Monitoring	N	651023	5564991	-
	40	FR_MW22_POTW6B	For Evaluation for SSGMP	Monitoring	N	651023	5564991	-
	41	FR_MW22_POTW7	For Evaluation for SSGMP	Monitoring	N	651144	5565129	-
	42	FR_MW22_POTW8A	For Evaluation for SSGMP	Monitoring	N	651077	5565077	-
	43	FR_MW22_POTW8B	For Evaluation for SSGMP	Monitoring	N	651077	5565077	-
-								

a: SSGMP denotes FRO Site-Specific Groundwater Monitoring Program; RGMP denotes Regional Groundwater Monitoring Program.

b: Based on recommendations in 2022 SSGMP/RGMP Annual Report.

c: well decommissioned in 2022

[&]quot;-" denotes data not available.

Draft borehole logs are subject to change.

Also considered For Evaluation as a Background well for the Regional Groundwater Monitoring Program (RGMP)

TABLE XIV - B: Summary of "For Evaluation" Wells - Installation Details (FRO)

Area	Count	Well ID	Monitoring Program ^a	Well Type	Final Borehole Log (Y/N/Draft)		linates IAD 83) Northing	Screened Formation
	45	FR_MW22_FC1_1A	For Evaluation for SSGMP	Monitoring	Draft	650935	5564677	Bedrock (Siltstone)
	46	FR_MW22_FC1_1B	For Evaluation for SSGMP	Monitoring	Draft	650936	5564677	Sand and Gravel
	47	FR_MW22_CB-1C	For Evaluation for SSGMP	Monitoring	Y	651080	5564422	Gravelly sand and Silt
	48	FR_MW22_CB-7A	For Evaluation for SSGMP	Monitoring	Y	650849	5564165	Bedrock
	49	FR_MW22_CB-7B	For Evaluation for SSGMP	Monitoring	Y	650850	5564162	Silty Sand
	50	FR_MW22_CB-7C	For Evaluation for SSGMP	Monitoring	Y	650851	5564160	Gravel Overlying Clay
	51	FR_MW22_CB-X3A	For Evaluation for SSGMP	Monitoring	Y	650939	5564528	Gravelly Clay
	52	FR_MW22_CB-X3B	For Evaluation for SSGMP	Monitoring	Y	650940	5564530	Silty Sand
	53	FR_LMA-1	For Evaluation for SSGMP	Monitoring	Y	650785	5563845	Bedrock (Fernie Formation)
	54	FR_LMA-2	For Evaluation for SSGMP	Monitoring	Y	650853	5563847	Bedrock (Fernie Formation)
	55	FR_LMA-3	For Evaluation for SSGMP	Monitoring	Y	650780	5563951	Bedrock (Fernie Formation)
	56	FR_GCMW-3A	For Evaluation for SSGMP	Monitoring	Draft	651075	5563962	Bedrock (Fernie Formation)
	57	FR_GCMW-3B	For Evaluation for SSGMP	Monitoring	Draft	651077	5563964	Clay and Cobble
	58	FR_GCMW-3C	For Evaluation for SSGMP	Monitoring	Draft	651078	5563962	Gravel/Silty Clay
	59	FR_GCMW-4A	For Evaluation for SSGMP	Monitoring	Draft	651059	5563798	Bedrock (Fernie Formation)
	60	FR_GCMW-4B	For Evaluation for SSGMP	Monitoring	Draft	651059	5563800	Clay and Gravel
	61	FR_GCMW-4C	For Evaluation for SSGMP	Monitoring	Draft	651057	5563799	Silty Clay
	62	FR_GCMW-5A	For Evaluation for SSGMP	Monitoring	Draft	651094	5563573	Bedrock (Fernie Formation)
	63	FR_GCMW-5B	For Evaluation for SSGMP	Monitoring	Draft	651092	5563576	Silty Clay/Clay
	64	FR_GCMW-5C	For Evaluation for SSGMP	Monitoring	Draft	651090	5563580	Gravel
	65	FR_MW22_GCMW-6A	For Evaluation for SSGMP	Monitoring	Y	651033	5563917	Weathered/Fractured Bedrock
	66	FR_MW22_GCMW-6B	For Evaluation for SSGMP	Monitoring	Y	651033	5563917	Silt and Clay
Fording River Watershed	67	FR_MW_R41A	For Evaluation for SSGMP	Monitoring	Draft	651291	5563908	Alluvium/Bedrock (Fernie Formati
	68	FR_MW_R42A	For Evaluation for SSGMP	Monitoring	Draft	651293	5563898	Bedrock (Fernie Formation)
	69	FR_MW_E41A	For Evaluation for SSGMP	Monitoring	Draft	652835	5561944	Bedrock (Kootenay Group)
	70	FR_MW_E42A	For Evaluation for SSGMP	Monitoring	Draft	652829	5561958	Bedrock (Kootenay Group)
	71	FR_MW-EC1A	For Evaluation for SSGMP	Monitoring	N	651261	5562779	Sand and Gravel
	72	FR_MW-EC1B	For Evaluation for SSGMP	Monitoring	N	651261	5562779	Gravel
	73	FR_MW-EC2A	For Evaluation for SSGMP	Monitoring	N	651201	5562878	Gravelly Till
	74	FR_MW-EC2B	For Evaluation for SSGMP	Monitoring	N	651201	5562877	Gravel with Sand
	75	FR_MW-EC3A	For Evaluation for SSGMP	Monitoring	N	651330	5562916	Gravel
	76	FR_MW-EC3B	For Evaluation for SSGMP	Monitoring	N	651331	5562916	Sand and Gravel
	77	FR_MW-EC4A	For Evaluation for SSGMP	Monitoring	N	651420	5562817	Sandy Till
	78	FR_MW-EC4B	For Evaluation for SSGMP	Monitoring	N	651420	5562818	Gravel with Sand
	79	FR_09-03-A	For Evaluation for RGMP / SSGMP	Monitoring	Draft	652107	5559996	Gravely sand
	80	FR 09-03-B	For Evaluation for RGMP /	Monitoring	Draft	652107	5559996	Gravely sand
	81	FR_BH-03-16	SSGMP For Evaluation for RGMP /	Monitoring	N	652097	5559837	<u> </u>
	82	FR_BH-04-16	SSGMP For Evaluation for RGMP /	Monitoring	N	652195	5559886	<u>-</u>
	83	FR_MW22_KCWD1A	SSGMP For Inclusion in SSGMP ^b	Monitoring	Draft	657212	5560555	Bedrock (Dolostone)
	84	FR_MW22_KCWD1B	For Inclusion in SSGMP ^b	Monitoring	Draft	657213	5560555	Sand and Gravel
	85	FR_KB-10MW	For Evaluation for RGMP /	Monitoring	Draft	652650	5559881	Silty Gravel
	86	FR KB-11MW	SSGMP For Evaluation for RGMP /	Monitoring	Draft	652698	5559870	Gravel
	87	FR KB-12PW	SSGMP For Evaluation for RGMP /	Monitoring	Draft	652721	5559856	Gravel
	88	FR_KB-13A	SSGMP For Evaluation for RGMP /	Monitoring	Draft	652695	5559839	Sand and Gravel
		. 11_110-10/1	SSGMP For Evaluation for RGMP /	omig	Dian	302000	200000	Cana and Oraver

a: SSGMP denotes FRO Site-Specific Groundwater Monitoring Program; RGMP denotes Regional Groundwater Monitoring Program.

b: Based on recommendations in 2022 SSGMP/RGMP Annual Report.

c: well decommissioned in 2022

Draft borehole logs are subject to change.

Also considered For Evaluation as a Background well for the Regional Groundwater Monitoring Program (RGMP)

TABLE XIV - B: Summary of "For Evaluation" Wells - Installation Details (FRO)

					Final Borehole Log		linates IAD 83)	
Area	Count	Well ID	Monitoring Program ^a	Well Type	(Y/N/Draft)	Easting	Northing	Screened Formation
	90	FR_KB-14MW	For Evaluation for RGMP / SSGMP	Monitoring	Draft	652738	5559753	Sandy gravel
	91	FR_KB-15MW	For Evaluation for RGMP / SSGMP	Monitoring	Draft	652756	5559695	Gravel
	92	FR_KB-16MW	For Evaluation for RGMP / SSGMP	Monitoring	Draft	652773	5559643	Clayey sand
	93	FR_KB-17MW	For Evaluation for RGMP / SSGMP	Monitoring	Draft	652769	5559871	Gravel
	94	FR_KB-18MW	For Evaluation for RGMP / SSGMP	Monitoring	Draft	652834	5559840	Gravel
	95	FR_KB-19MW	For Evaluation for RGMP / SSGMP	Monitoring	Draft	652888	5559879	Gravel
	96	FR_KB-20MW	For Evaluation for RGMP / SSGMP	Monitoring	Draft	652949	5559837	Gravel
	97	RG_MW_FR2A	For Evaluation for RGMP	Monitoring	Y	653499	5556756	Sand and Gravel
	98	RG_MW_FR2B	For Evaluation for RGMP	Monitoring	Y	653500	5556755	Gravel
	99	RG_MW_FR3A	For Evaluation for RGMP	Monitoring	Y	653233	5556777	Sand and Gravel
	100	RG_MW_FR3B	For Evaluation for RGMP	Monitoring	Y	653233	5556778	Sand and Gravel
	101	RG_MW_FR4A	For Evaluation for RGMP	Monitoring	Y	653496	5556366	Gravel
	102	RG_MW_FR4B	For Evaluation for RGMP	Monitoring	Y	653496	5556368	Sand
	103	RG_MW_FR5A	For Evaluation for RGMP	Monitoring	Y	653572	5556260	Clayed Sand
Fording River	104	RG_MW_FR5B	For Evaluation for RGMP	Monitoring	Y	653573	5556257	Sand and Gravel
Watershed	105	RG_MW_FR5C	For Evaluation for RGMP	Monitoring	Y	653570	5556259	Sand and Gravel
	106	RG_MW_FR6A	For Evaluation for RGMP	Monitoring	Υ	653598	5556055	Sand and Gravel
	107	RG_MW_FR6B	For Evaluation for RGMP	Monitoring	Y	653596	5556055	Sand and Gravel
	108	RG_MW_FR7A°	For Evaluation for RGMP	Monitoring	Y	653634	5555487	Sand
	109	RG_MW_FR7B°	For Evaluation for RGMP	Monitoring	Y	653634	5555484	Sand and Gravel
	110	RG_MW22_FR12A	For Evaluation for RGMP	Monitoring	Draft	653619	5555473	Bedrock (Shale)
	111	RG_MW22_FR12B	For Evaluation for RGMP	Monitoring	Draft	653619	5555473	Sand and Gravel
	112	RG_MW22_FR12C	For Evaluation for RGMP	Monitoring	Draft	653619	5555473	Sand
	113	RG_MW22_FR12D	For Evaluation for RGMP	Monitoring	Draft	653619	5555473	Sand and Gravel
	114	RG_MW22_FR13A	For Evaluation for RGMP	Monitoring	Draft	654995	5553975	Bedrock
	115	RG_MW22_FR13B	For Evaluation for RGMP	Monitoring	Draft	654995	5553975	Gravelly Silt
	116	RG_MW22_FR13C	For Evaluation for RGMP	Monitoring	Draft	654995	5553975	Sand
	117	RG_MW22_FR14A	For Evaluation for RGMP	Monitoring	Draft	655375	5553124	Bedrock
	118	RG_MW22_FR14B	For Evaluation for RGMP	Monitoring	Draft	655375	5553124	Sand
	119	RG_MW22_FR14C	For Evaluation for RGMP	Monitoring	Draft	655375	5553124	Gravel
	120	FR_MW20-01S	For Evaluation for SSGMP	Monitoring	Y	652228	5558245	Unconsolidated material
	121	FR_MW20-01D	For Evaluation for SSGMP	Monitoring	Y	652229	5558243	Bedrock (Spray River Fm)
Outff Out als	122	FR_MW20-02S	For Evaluation for SSGMP	Monitoring	Y	652176	5558374	Unconsolidated material
Swift Creek	123	FR_MW20-02D	For Evaluation for SSGMP	Monitoring	Y	652177	5558373	Bedrock (Spray River Fm)
	124	FR_MW20-03S	For Evaluation for SSGMP	Monitoring	Y	652187	5558166	Unconsolidated material
	125	FR_MW20-03D	For Evaluation for SSGMP	Monitoring	Y	652187	5558167	Bedrock (Spray River Fm)
	126	FR_MW22_CC1A	For Evaluation for RGMP / SSGMP	Monitoring	Draft	652434	5557526	Bedrock (Spray River Fm)
	127	FR_MW22_CC1B	For Evaluation for RGMP / SSGMP	Monitoring	Draft	652435	5557525	Silt and Bedrock
	128	FR_MW22_CC2A	For Evaluation for RGMP / SSGMP	Monitoring	Draft	652516	5557519	Bedrock (Spray River Fm)
Ontario Co.	129	FR_MW22_CC2B	For Evaluation for RGMP / SSGMP	Monitoring	Draft	652515	5557520	Bedrock (Spray River Fm)
Cataract Creek	130	FR_MW22_CC2C	For Evaluation for RGMP / SSGMP	Monitoring	Draft	652514	5557518	Overburden, Sand and Gravel
	131	FR_MW22_CC3A	For Evaluation for RGMP / SSGMP	Monitoring	Draft	652524	5557492	Bedrock (Spray River Fm)
	132	FR_MW22_CC3B	For Evaluation for RGMP / SSGMP	Monitoring	Draft	652524	5557491	Bedrock (Spray River Fm)
	133	FR_MW22_CC3C	For Evaluation for RGMP / SSGMP	Monitoring	Draft	652524	5557491	Silt
Notes:	<u>I</u>			<u> </u>	1		l	ı

Also considered For Evaluation as a Background well for the Regional Groundwater Monitoring Program (RGMP)

 $a: SSGMP\ denotes\ FRO\ Site-Specific\ Groundwater\ Monitoring\ Program;\ RGMP\ denotes\ Regional\ Groundwater\ Monitoring\ Program.$

b: Based on recommendations in 2022 SSGMP/RGMP Annual Report.

c: well decommissioned in 2022

[&]quot;-" denotes data not available.

Draft borehole logs are subject to change.

TABLE XIV - C: Summary of "For Evaluation" Wells - Installation Details (GHO)

Area	Count	Well ID	Monitoring Program ^a	Well Type	Final Borehole Log (Y/N)	Coord (UTM N	IAD 83)	Screened Formation
			5 5 4 11 1 COOM		.,	Easting	Northing	Dada-ali
	1	GH_MW_GHC_2A	For Evaluation for SSGMP	Monitoring	Y	653699	5546782	Bedrock
	2	GH_MW_GHC_3B	For Evaluation for SSGMP	Monitoring	Y	653615	5546508	Bedrock
	3	GH_MW_E1_1A	For Evaluation for SSGMP	Monitoring	Y	653158	5546210	Bedrock
	4	GH_POTW06	For Evaluation for RGMP	Supply	Y	653494 ^b	5545826 ^b	Sand and Gravel
	5	GH_MW_FR1A	For Evaluation for RGMP	Monitoring	Y	653461	5545629	Sand and Gravel
	6	GH_MW_FR1B	For Evaluation for RGMP	Monitoring	Y	653460	5545627	Silt and Clay
	7	GH_MW_FR2A	For Evaluation for RGMP	Monitoring	Y	654322	5545366	Sand and Gravel
	8	GH_MW_FR2B	For Evaluation for RGMP	Monitoring	Y	654323	5545365	Sand and Gravel
Greenhills Creek Watershed	9	GH_MW_FR3A	For Evaluation for RGMP	Monitoring	Y	653086	5545568	Bedded Sand and Gravel / Silt and Clay
(Fording River Valley)	10	GH_MW_FR3B	For Evaluation for RGMP	Monitoring	Y	653087	5545568	Bedded Sand and Gravel / Silt and Clay
	11	GH_MW_FR4A	For Evaluation for RGMP	Monitoring	Y	653169	5545821	Gravel, Silt and Clay
	12	GH_MW_FR4B	For Evaluation for RGMP	Monitoring	Y	653171	5545820	Sandy Silt and Clay
	13	GH_MW_FR5A	For Evaluation for RGMP	Monitoring	Y	653288	5545477	Sandy Gravel, some silt
	14	GH_MW_FR5B	For Evaluation for RGMP	Monitoring	Y	653287	5545478	Sand and Gravel, some silt
	15	GH_MW_FR6	For Evaluation for RGMP	Monitoring	Y	653861	5545301	Sand and Gravel, some silt
	16	GH_MW_FR7	For Evaluation for RGMP	Monitoring	Y	653753	5545432	Sand and Gravel, some silt
	17	GH_MW_FR8A	For Evaluation for RGMP	Monitoring	Y	654146	5545205	Sand bedded with fines
	18	GH_MW_FR8B	For Evaluation for RGMP	Monitoring	Y	654146	5545207	Sand and Gravel

a: SSGMP denotes GHO Site-Specific Groundwater Monitoring Program; RGMP denotes Regional Groundwater Monitoring Program.

TABLE XIV - C: Summary of "For Evaluation" Wells - Installation Details (GHO)

Area	Count	Well ID	Monitoring Program ^a	Well Type	Final Borehole Log (Y/N)	,	IAD 83)	Screened Formation
						Easting	Northing	
	19	RG_MW_LC3C	For Evaluation for SSGMP (MBI Well)	Monitoring	Υ	648181	5552738	Clay and Gravel
	20	RG_MW_ER1A	For Evaluation for SSGMP (MBI Well)	Monitoring	Y	648900	5548591	Sand and Gravel
	21	RG_MW_ER1B	For Evaluation for SSGMP (MBI Well)	Monitoring	Y	648899	5548590	Gravel
	22	RG_MW_ER2A	For Evaluation for SSGMP (MBI Well)	Monitoring	Y	649044	5548451	Sandy Clay/Silty Sand
	23	RG_MW_ER2B	For Evaluation for SSGMP (MBI Well)	Monitoring	Y	649043	5548451	Gravel
	24	RG_MW_ER3A	For Evaluation for SSGMP (MBI Well)	Monitoring	Y	648288	5550080	Sand and Gravel
	25	RG_MW_ER3B	For Evaluation for SSGMP (MBI Well)	Monitoring	Y	648288	5550080	Sand and Gravel
Greenhills Creek Watershed	26	RG_MW_ER4A	For Evaluation for SSGMP (MBI Well)	Monitoring	Y	648300	5549330	Sand and Gravel
(Fording River Valley)	27	RG_MW_ER4B	For Evaluation for SSGMP (MBI Well)	Monitoring	Y	648300	5549329	Sand and Gravel
	28	RG_MW_ER5A	For Evaluation for SSGMP (MBI Well)	Monitoring	Y	648692	5549074	Bedrock
	29	RG_MW_ER5B	For Evaluation for SSGMP (MBI Well)	Monitoring	Y	648691	5549074	Sand and Gravel
	30	RG_MW_ER6A	For Evaluation for SSGMP (MBI Well)	Monitoring	Y	648580	5549334	Bedrock
	31	RG_MW_ER6B	For Evaluation for SSGMP (MBI Well)	Monitoring	Y	648580	5549333	Sand and Gravel
	32	RG_MW_ER7A	For Evaluation for SSGMP (MBI Well)	Monitoring	Y	648580	5549334	Bedrock
	33	RG_MW_ER7B	For Evaluation for SSGMP (MBI Well)	Monitoring	Y	648580	5549333	Sand and Gravel
	34	RG_MW_ER8	For Evaluation for SSGMP (MBI Well)	Monitoring	Y	648580	5549333	Sand and Gravel

a: SSGMP denotes GHO Site-Specific Groundwater Monitoring Program; RGMP denotes Regional Groundwater Monitoring Program.

TABLE XIV - C: Summary of "For Evaluation" Wells - Installation Details (GHO)

Area	Count	Well ID	Monitoring Program ^a	Well Type	Final Borehole Log (Y/N)	Coord (UTM N		Screened Formation
					, ,	Easting	Northing	
	35	RG_MW_ER9A	For Evaluation for SSGMP (MBI Well)	Monitoring	Y	648386	5551764	Sand, some silt
	36	RG_MW_ER9B	For Evaluation for SSGMP (MBI Well)	Monitoring	Y	648392	5551766	Sand and Gravel
	37	RG_MW_ER10A	For Evaluation for SSGMP (MBI Well)	Monitoring	Y	648928	5548902	Sandy Gravel
	38	RG_MW_ER10B	For Evaluation for SSGMP (MBI Well)	Monitoring	Y	648928	5548903	Sandy Gravel
	39	RG_MW_ER11A	For Evaluation for SSGMP (MBI Well)	Monitoring	Y	648840	5548753	Gravelly Silt
	40	RG_MW_ER11B	For Evaluation for SSGMP (MBI Well)	Monitoring	Y	648840	5548754	Sand and Gravel
Elk River Valley	41	GH_MW_LC1-A	For Evaluation for SSGM/RGMP	Monitoring	Y	648131	5552871	Silty Gravel
	42	GH_MW_LC1-B	For Evaluation for SSGM/RGMP	Monitoring	Y	648131	5552870	Sand and Gravel
	43	GH_MW_LC2-A	For Evaluation for SSGM/RGMP	Monitoring	Y	648158	5552978	Sand and Gravel
	44	GH_MW_LC2-B	For Evaluation for SSGM/RGMP	Monitoring	Y	648159	5552979	Sand and Gravel
	45	GH_MW_WC1-A	For Evaluation for SSGM/RGMP	Monitoring	Y	647987	5552217	Sand and Gravel
	46	GH_MW_WC1-B	For Evaluation for SSGM/RGMP	Monitoring	Y	647987	5552217	Sand and Gravel
	47	GH_MW_WC1-C	For Evaluation for SSGM/RGMP	Monitoring	Y	647985	5552218	Sand and Gravel

a: SSGMP denotes GHO Site-Specific Groundwater Monitoring Program; RGMP denotes Regional Groundwater Monitoring Program.

TABLE XIV - D: Summary of "For Evaluation" Wells - Installation Details (LCO)

Area	Count	Well ID	Monitoring Program ^a	Well Type	Final Borehole Log (Y/N/Draft)		linates NAD 83)	Screened Formation
					, ,	Easting	Northing	
LCO Phase II	1	LC_MW22_DCDS-1A	For Evaluation for SSGMP	Monitoring	N	-	-	-
Dry Creek	2	LC_MW22_DCDS-1C	For Evaluation for SSGMP	Monitoring	N	-	-	-
LCO Phase I Upper Line Creek (Tornado Creek)	3	LC_MW_LC1-1A	For Evaluation for SSGMP	Monitoring	Y	661955	5538176	Gravel
	4	LC_MW22_LC1-1ABR	For Evaluation for SSGMP	Monitoring	Draft	661957	5538175	Bedrock (Shale)
	5	LC_MW_LC1-2A	For Evaluation for SSGMP/RGMP	Monitoring	Υ	662008	5538214	Gravel, Sand, Cobbles and Sand
	6	LC_MW_LC1-3A	For Evaluation for SSGMP	Monitoring	Υ	661990	5538247	Gravel, Sand
	7	LC_MW_WLC-1A	For Evaluation for SSGMP	Monitoring	Υ	659753	5532228	Gravel
West Line Creek	8	LC_MW_WLC-2A	For Evaluation for SSGMP	Monitoring	Y	659869	5532370	Gravel
	9	LC_MW_WLC-3A	For Evaluation for SSGMP	Monitoring	Y	659583	5532281	Gravel
	10	RG_MW_LC4A	For Evaluation for RGMP	Monitoring	Y	655533	5528823	Bedrock - shale
	11	RG_MW_LC4B	For Evaluation for RGMP	Monitoring	Y	655535	5528823	Sand and Gravel
	12	LC_MW_ERX1A	For Evaluation for SSGMP	Monitoring	Y	655036	5526827	Bedrock - shale
Process Plant	13	LC_MW_ERX1B	For Evaluation for SSGMP	Monitoring	Y	655035	5526832	Silty Gravel
FIOCESS FIGIIL	14	LC_MW_SRD1A	For Evaluation for SSGMP	Monitoring	Y	653604	5526818	Silty Clay
	15	LC_MW_SRD1B	For Evaluation for SSGMP	Monitoring	Υ	653601	5526820	Sand and Gravel
	16	LC_MW_SRD2A	For Evaluation for SSGMP	Monitoring	Y	653885	5525984	Sandy Clay
	17	LC_MW_SRD2B	For Evaluation for SSGMP	Monitoring	Y	653885	5525983	Gravel

Draft borehole data is subject to change.

Also considered For Evaluation as a Background well for the Regional Groundwater Monitoring Program (RGMP)

a: SSGMP denotes LCO Site-Specific Groundwater Monitoring Program; RGMP denotes Regional Groundwater Monitoring Program.

[&]quot;-" denotes data not available.

TABLE XIV - E: Summary of "For Evaluation" Wells - Installation Details (EVO)

Area	Count	Well ID	Monitoring Program ^a	Well Type	Final Borehole Log (Y/N/Draft)		linates IAD 83) Northing	Screened Formation
Erickson Creek and Michel Creek Downstream of	1	EV_MW_EC3A	For Evaluation for SSGMP	Monitoring	Y	660840	5506540	Sand and Gravel
Erickson Creek (Study Area 10)	2	EV_MW_EC3B	For Evaluation for SSGMP	Monitoring	Y	660842	5506516	Sand
	3	EV_MW22_RCSgw_1A	For Evaluation for SSGMP	Monitoring	Draft	655899	5509281	Sand
Road Crew Shop	4	EV_MW22_RCSgw_1B	For Evaluation for SSGMP	Monitoring	Y	655902	5509281	Sand
	5	EV_MW22_RCSgw_1C	For Evaluation for SSGMP	Monitoring	Y	655902	5509280	Sand
Near BCgw	6	EV_MW22_BCgw_1A	For Evaluation for SSGMP	Monitoring	Y	655385	5509655	Gravel
Near Bogw	7	EV_MW22_BCgw_1B	For Evaluation for SSGMP	Monitoring	Y	655386	5509656	Sand and Gravel
Near MC2B	8	EV_MW22_MC2C	For Evaluation for SSGMP	Monitoring	Y	654751	5510511	Gravel
MC3 (D1)	9	EV_MW22_MC3B	For Evaluation for SSGMP	Monitoring	Y	653660	5510983	Sand and Gravel
Grave Creek	10	EV_MW22_GV5A	For Evaluation for SSGMP	Monitoring	Draft	659300	5523750	Sand and Gravel
Grave Greek	11	EV_MW22_GV5B	For Evaluation for SSGMP	Monitoring	Draft	659299	5523749	Sand and Gravel

a: SSGMP denotes EVO Site-Specific Groundwater Monitoring Program

Draft borehole data is subject to change.

Also considered For Evaluation as a Background well for the Regional Groundwater Monitoring Program (RGMP)

Borehole Logs

- Background Borehole Logs Wells for Evaluation
- Fording River Operations Borehole Logs Wells for Evaluation
- Greenhills Operations Borehole Logs Wells for Evaluation
- Line Creek Operations Borehole Logs Wells for Evaluation
- Elkview Operations Borehole Logs Wells for Evaluation

Background Borehole Logs – Wells for Evaluation

Borehole No: LC_MW_HC-1A **Teck Coal Limited** Project: LCO Phase 2 Water Treatment Project No: ENW.GENV03056-01 Location: Horseshoe Creek Ground Elev: 1740.33 m UTM: 663089.16 E; 5535741.73 N; Z 11 Elk Valley, British Columbia Moisture Content (%) LC_MW_HC-1A Sample Type SOIL SYMBOL Elevation (m) Soil Depth (m) SC Description Plastic Moisture Limit Content Limit 80 20 40 60 GRAVEL (FILL) - clayey, moist, loose, brown 1740 GC - (Rock corrected maximum density = 2010 kg/m³) mm) 12.2 1739 - 75 mm thick clay layer - rootlets, wood GRAVEL - sandy, silty, trace clay, angular gravel, dry, loose, grey to light brown Sonic (102 GM - cobbles and boulders 1738 8.8 13.9 3 CLAY - silty, trace coarse grained sand, wet, loose 1737 MUDSTONE (COBBLES AND BOULDERS) - powdery, dry, brown **Ò**MUDSTONE 0.8 END OF BOREHOLE (4.11 metres) 1736 water - 3.01 metres below ground - dry on December 14, 2021 5 Monitoring well installed to 3.05metres 1735 Monitoring well diameter: 55 mm Screened Interval: 1.83 - 3.05 metres below ground 020 Slot Size 1734 10/20 Filter Sand Top of sand: 1.22 metres below ground Top of PVC: 1741.238 masl 1733 8 1732 9 1731 10 1730 11 1729 12 1728 13 1727 14 1726 15 1725 16 1724 17 1723 18 1722 19 1721 Completion Depth: 4.11 m Contractor: Mud Bay Drilling **TETRA TECH** Equipment Type: TerraSonic 150CC Rotosonic Drill Rig Start Date: 2021 December 7 Logged By: Carl Forkheim Completion Date: 2021 December 7 Reviewed By: Stephan Klump Page 1 of 1

Borehole No: LC_MW_HC-2A **Teck Coal Limited** Project: LCO Phase 2 Water Treatment Project No: ENW.GENV03056-01 Location: Horseshoe Creek Ground Elev: 1726.69 m Elk Valley, British Columbia UTM: 662979.57 E; 5535813.54 N; Z 11 Moisture Content (%) LC_MW_HC-2A Sample Type SOIL SYMBOL Elevation (m) Soil Depth (m) SC Description Plastic Moisture Liquid Content Limit Limit 20 40 60 80 SAND AND GRAVEL (FILL) - roots, branches, cobbles, very fine grained sand, angular cobbles to 125 GW mm diameter, damp 26.7 1726 - (Rock corrected maximum density = 2255 kg/m3) COBBLES - gravelly, sandy, trace silt and clay, very fine sand, angular to subangular gravel, well graded, 1725 4.7 1724 3 GW 1723 mm) 1722 (102 5 9.3 - clayey, cobbles to 125 mm diameter 1721 BOULDER - crushed by bit, dry GC GRAVEL - clayey, sandy, silty, some cobbles, angular gravel, fine grained sand, wet, brown 10.7 CL-CI - at 6.25 m, CLAY - silty, sandy, gravelly, gravel to 40 mm diameter, wet, firm to stiff, light brown - (Gravel - 45%; Sand - 29%; Silt & Clay - 26%) 1718 1718 - 450 mm thick clayey gravel layer GC Dec15/27 - increasing silt and clay content 14.6 9 SILTSTONE AND MUDSTONE (BEDROCK) - dry, hard SILTSTONE MUDSTONE END OF BOREHOLE (10.21 metres) water - 7.47 metres below ground on December 15, 2021 1716 11 Monitoring well installed to 8.50 metres Monitoring well diameter: 55 mm Screened Interval: 5.45 - 8.50 metres below ground 1715 020 Slot Size 12 10/20 Filter Sand Top of sand: 5.79 metres below ground 1714 Top of PVC: 1727.500 masl 13 1713 14 1712 15 1711 16 1710 17 1709 18 1708 19 1707 Contractor: Mud Bay Drilling Completion Depth: 10.21 m **TETRA TECH** Equipment Type: TerraSonic 150CC Rotosonic Drill Rig Start Date: 2021 December 8 Logged By: Carl Forkheim Completion Date: 2021 December 8 Reviewed By: Stephan Klump Page 1 of 1

Borehole No: LC_MW_HC-3A **Teck Coal Limited** Project: LCO Phase 2 Water Treatment Project No: ENW.GENV03056-01 Location: Horseshoe Creek Ground Elev: 1725.24 m UTM: 662799.92 E; 5535787.26 N; Z 11 Elk Valley, British Columbia Moisture Content (%) LC_MW_HC-3A Sample Type SOIL SYMBOL Elevation (m) Soil Depth (m) SC Description Plastic Moisture Liquid Content Limit 20 40 60 80 GW GRAVEL (FILL) - roots 1725 No recovery 1724 BOULDER - quartzite, hard 2 1723 No recovery 3 GRAVEL AND CLAY - silty, some fine grained sand, some cobbles, angular gravel, damp, brown 1722 1721 GM 5 1720 102 mm CLAY - silty, gravelly, trace coarse grained sand, angular gravel, damp, soft to firm, medium plastic, Dec15/13 - 150 mm diameter cobble Sonic 1717 9 - wood chunk 1716 - increased gravel to 600 mm 10 1715 - dry cobbles for 300 mm 11 1714 - increasing clay content 12 1713 13 - some gravel, trace cobbles, no visible sand or silt, dry to damp, stiff, black 1712 - dry, hard 14 1711 MUDSTONE (BEDROCK) - clayey, weathered, brown 15 . ŽXUDSTONE 1710 END OF BOREHOLE (15.85 metres) 16 1709 water - 6.95 metres below ground on December 16, 2021 Monitoring well installed to 7.16 metres Monitoring well diameter: 55 mm Screened Interval: 4.11 - 7.16 metres below ground 1708 020 Slot Size 10/20 Filter Sand 18 Top of sand: 3.35 metres below ground 1707 Top of PVC: 1726.019 masl 19 1706 Completion Depth: 15.85 m Contractor: Mud Bay Drilling **TETRA TECH** Equipment Type: TerraSonic 150CC Rotosonic Drill Rig Start Date: 2021 December 9 Logged By: Carl Forkheim Completion Date: 2021 December 9 Reviewed By: Stephan Klump Page 1 of 1

	ONIO T ATZA	т		Client oal Lin	nited	Borehol	Borehole No. : RG_BH_AC1A					
V)	SNC+LAVA	Regional		cation dwate	r Monite	oring			PAGE 1 OF 2			
rilling oreho	Contractor Mud Bay Drilling Co. Ltd. Method Vibratory Sonic ole Dia. (m) 0.15 oltted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5502845.	. (m) ´	1304	3.926 4.821 ting: 6636	652.86		Project Number: Borehole Logged Date Drilled: Log Typed By:	683032 By: AH 2021 09 13 VL		
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Lev □ Water Lev • NAPL □ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: RG_MW_AC1A		
De	Soil Des	cription		Stra	Sam	Sam	Bo	& % 10	0 ¹ 10 ² 10 ³ 10 ⁴	П		
1-	SAND and GRAVEL, fine to coa coarse gravel, subrounded, traccontains organic material.	rse grained sa e silt, brown, k	and, fine to pose, damp,		\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\			60				
2-	GRAVEL, fine to coarse, subrou coarse grained, brown, loose, we	et.						70				
3-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1	At 2.7 m - containing cobbles (> material.	i su mm), con	ains organic		\$\$\$\$\$\$\$\$\$\$\$\$\$\$							
5-1	SAND, fine grained, trace silt, po									BENTONITE		
7	SAND, fine to medium grained, brown, dense, wet.	trace silt, poor	ly graded,		\ \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\			100				
9-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1	At 8.5 m - 100 mm seam of lami sand.	nated silt and	fine grained					100				
				NOT	ES							

	CD10 T AT7A		Te	eck C	Client oal Lin	nited			Borehol	e No. : RG_BH_AC1A
((*	SNC+LAVA	LIN	Regional (cation ndwate	r Monito	oring			PAGE 2 OF 2
Drilling Boreho	g Contractor Mud Bay Drilling Co. Ltd. y Method Vibratory Sonic ole Dia. (m) 0.15 llotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5502845.0	. (m) ´	1304	3.926 4.821 ting: 6636	652.86	64	Project Number: Borehole Logged Date Drilled: Log Typed By:	683032 By: AH 2021 09 13 VL
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	▼ Water Lev ▼ Water Lev • NAPL • NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	Recovery	indicated scale	Solid PVC Slotted PVC Well Name 1: RG_MW_AC1A
	Soil Des	cription		Ī	တ္တီ ပိ	Sa	М	% 10 ¹	10² 10³ 10⁴	
12		race silt, brow	n, firm, wet.					100		RG_MW_AC1A
17 18 19 19 19 19 19 19 19				NOT	ËS					

M CRIC. T ATT	TINT	Те		Client oal Lin	nited		Borehole No. : RG_BH_AC1B					
" SNC+LAVA	SNC+LAVALIN					oring		PAGE 1 OF 1				
ling Contractor Mud Bay Drilling Co. Ltd ling Method Vibratory Sonic ehole Dia. (m) 0.15 e/Slotted Pipe Dia. (m) 0.05/0.05	l.	Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5502844.8	(m)	1304	3.989 4.831 ing: 6636	654.38	_	Project Number: Borehole Logged Date Drilled: Log Typed By:	683032 By: MM/AH 2021 09 14 VL			
Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Le ⊽ Water Le ♠ NAPL △ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	Recovery	P Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: RG_MW_AC1B			
Soil Des	scription		Stra	Sar Cor	Sar	В	% 10	¹ 10² 10³ 10⁴	П			
SAND and GRAVEL, fine to co- coarse gravel, subrounded, trac graded, grey-brown, loose, dam At 1.2 m - organic material, woo At 3.7 m - large cobbles (200 m during drilling.	e silt, containii ip. od/tree root.	eediment washed					50		BENTONITE RG_MW_AC1E			
graded, brown/grey, soft, wet. Bottom of hole at 6.1 m.												
9			NOT									

Fording River Operations Borehole Logs – Wells for Evaluation

					<u>NA</u>	<u> </u>							
(1)	CNIC . T ANTA	Te		Client oal Lim	nited		Borehole I	Borehole No. : FR_BH22_HC1_1A					
7))	SNC · LAVA	FRO - I	Location FRO - Henretta Creek Valley						PAGE 1 OF 2				
Drilling	Drilling Method Vibratory Sonic Borehole Dia. (m) 0.15		Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5566416.2	(m)	2022 08 19 1718.443 1719.269 Easting: 652232.660			60	Project Number: Borehole Logged Date Drilled: Log Typed By:	692207 By: MTB 2022 08 18 LC			
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Le ⊽ Water Le • NAPL ○ NAPL	vel 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: FR_MW22_HC1_1A			
ă	Soil Desc	ription		Stra	San	San	В	% 1	0 ¹ 10 ² 10 ³ 10 ⁴	П			
2-	SILTY SAND and GRAVEL, fine the gravel, subrounded to subangular graded, dark brown, loose, dry. CLAY, some silt, trace gravel, fine subangular, brown, firm, high pla	e to coarse, s	cobbles, well					60					
5	BEDROCK, coal, black, dry.							100		BENTONITE			
7	BEDROCK, dark grey, siltstone, of Between 7.0 m and 7.3 m - dry. Between 9.1 m and 9.5 m - moist At 9.5 m - dry.							20					
10-5				NOT	ES								

	CRIC T ATTA	TINI	Te		Client oal Lin	nited				Borehole I	No. : FR_BH22_HC1_1A
 V)	SNC+LAVA	LIN	FRO - I		cation tta Cre	ek Valle	у				PAGE 2 OF 2
Drilling Boreho	g Contractor Mud Bay Drilling Co. Ltd. g Method Vibratory Sonic ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5566416.2	(m)	1718 1719	2 08 19 3.443 9.269 ing: 6522	232.66	60		Project Number: Borehole Logged Date Drilled: Log Typed By:	692207 By: MTB 2022 08 18 LC
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Le ⊽ Water Le • NAPL ◇ NAPL	vel 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	ir • F ir	Reading within ndicated scale Reading outside ndicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: FR_MW22_HC1_1A
De	Soil Desc	cription		Strat	Sam Core	Sam	Blo	ਔ %1	0 ¹	10 ² 10 ³ 10 ⁴	
13	Between 13.7 - 14.3 m - wet. Between 15.5 - 15.9 m - wet. Bottom of hole at 15.9 m.		od)					100			FR_MW22_HC1_1A SAND BENTONITE
20											
20-				NOT	ES						

DRILL HOLE # FR_MW-HC1A **Page** 1 of 5 Project: Henretta Site Investigation Project No.: 0797032 Location: Henretta Spoil Drill Designation: Gus Pech Sonicor 50 Start Date: 30/07/2021 Survey Method: Handheld GPS Coordinates (m): 652,261E, 5,566,589N Drilling Contractor: Earth Drilling Finish Date: 31/07/2021 Ground Elevation (m): Drill Method: Sonic Final Depth of Hole (m): 44.2 Datum: UTM NAD83, Zone 11N Core: 97.9 mm Depth to Top of Rock (m): 41.1 Dip (degrees from horizontal): -90 Fluid: Water Logged by: EK Casing: 152.4 mm OD Cased To (m): 44.2 Reviewed by: TKW SPT/LPT Blows Per 150mm SPT/LPT (Blows/300mm) (E) Sample Type Lab Tests Sample No. Depth (m) Lithological Description Elevation and Backfill Details Moisture Content & Comments Atterberg Limits W_P% W% ×—— 0 ——> 20 40 60 80 -0 COBBLES (0.0 m to 1.5 m) Gravelly, some silt, well graded, loose, angular, brown, dry, trace [WASTE ROCK] 0.8 m to 1.1 m - COAL Fractured, low grade, black, dry. GRAVEL (1.5 m to 4.3 m)
Some silt, trace sand, well graded, angular to subangular, brown, dry, trace coal. 2 [WASTE ROCK] 3 3.0 m - Becomes GRAVEL, trace clay, trace cobble, dark grey. COAL (4.3 to 4.6 m) Fractured, black, dry, friable. SAND (4.6 m to 6.5 m) Gravelly, trace silt, well graded, angular, brown, dry [WASTE ROCK] 5 6 ₿ G01 COAL (6.5 m to 7.6 m)
Pulverized, loose, dry, black. 7 BOULDER (7.6 m to 9.4 m) Pulverized, loose, brown to grey, dry. [WASTE ROCK] 8 9 GRAVEL (9.4 m to 11.9 m) Trace sand, trace cobble, trace silt, well graded, brown to grey, angular, dry, trace staining. (Continued on next page) **Teck** BGC ENGINEERING INC.

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DRILL HOLE # FR_MW-HC1A Page 2 of 5 Project: Henretta Site Investigation Project No.: 0797032 Location: Henretta Spoil Drill Designation: Gus Pech Sonicor 50 Start Date: 30/07/2021 Survey Method: Handheld GPS Coordinates (m): 652,261E, 5,566,589N Drilling Contractor: Earth Drilling Finish Date: 31/07/2021 Ground Elevation (m): Drill Method: Sonic Final Depth of Hole (m): 44.2 Datum: UTM NAD83, Zone 11N Core: 97.9 mm Depth to Top of Rock (m): 41.1 Dip (degrees from horizontal): -90 Fluid: Water Logged by: EK Casing: 152.4 mm OD Cased To (m): 44.2 Reviewed by: TKW Backfill
Details
SPT/LPT Blows
Per 150mm SPT/LPT (Blows/300mm) Sample Type Elevation (m) Lab Tests Sample No. Depth (m) Lithological Description and Moisture Content & Comments Atterberg Limits W_P% W% ×—— 0 ——> 20 40 60 80 -10 GRAVEL (9.4 m to 11.9 m) Trace sand, trace cobble, trace silt, well graded, brown to grey, angular, dry, trace staining.

[WASTE ROCK] 11.5 m - Some cobbles. GRAVEL (11.9 m to 30.7 m) 12 Some sand, trace silt, trace cobble, well graded, black, moist, trace [WASTE ROCK] G02 13 ♡ 14.5 m - Becomes brown. 15 15.7 m - Becomes some clay, subrounded, trace staining. 16 * G03 16.7 m - Some cobbles. 17 18 - 19 (Continued on next page) **Teck**

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DRILL HOLE # FR_MW-HC1A **Page** 3 of 5 Project: Henretta Site Investigation Project No.: 0797032 Location: Henretta Spoil Start Date: 30/07/2021 Drill Designation: Gus Pech Sonicor 50 Survey Method: Handheld GPS Coordinates (m): 652,261E, 5,566,589N Drilling Contractor: Earth Drilling Finish Date: 31/07/2021 Ground Elevation (m): Drill Method: Sonic Final Depth of Hole (m): 44.2 Datum: UTM NAD83, Zone 11N Core: 97.9 mm Depth to Top of Rock (m): 41.1 Dip (degrees from horizontal): -90 Fluid: Water Logged by: EK Casing: 152.4 mm OD Cased To (m): 44.2 Reviewed by: TKW Backfill
Details
SPT/LPT Blows
Per 150mm SPT/LPT (Blows/300mm) Sample Type Elevation (m) Lab Tests Sample No. Depth (m) Lithological Description and Moisture Content & Comments Atterberg Limits W_P% W% ×—— 0 ——> 20 40 60 80 -20 GRAVEL (11.9 m to 30.7 m) Some sand, trace silt, trace cobble, well graded, black, moist, trace [WASTE ROCK] 21 22 22.7 m - Becomes sandy, some silt, trace cobble, subrounded to subangular, compact. 23 • G04 24 25 25.1 m - Fractured boulder, dry, grey. 26 27 28 28.3 m - Becomes black, some coal. 29 (Continued on next page) **Teck**

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DRILL HOLE # FR_MW-HC1A Page 4 of 5 Project: Henretta Site Investigation Project No.: 0797032 Location: Henretta Spoil Drill Designation: Gus Pech Sonicor 50 Start Date: 30/07/2021 Survey Method: Handheld GPS Coordinates (m): 652,261E, 5,566,589N Drilling Contractor: Earth Drilling Finish Date: 31/07/2021 Ground Elevation (m): Drill Method: Sonic Final Depth of Hole (m): 44.2 Datum: UTM NAD83, Zone 11N Core: 97.9 mm Depth to Top of Rock (m): 41.1 Dip (degrees from horizontal): -90 Fluid: Water Logged by: EK Casing: 152.4 mm OD Cased To (m): 44.2 Reviewed by: TKW Backfill
Details
SPT/LPT Blows
Per 150mm SPT/LPT (Blows/300mm) Sample Type Elevation (m) Lab Tests Sample No. Depth (m) Lithological Description and Moisture Content & Comments Atterberg Limits W_P% W% ×—— 0 ——> 20 40 60 80 -30 GRAVEL (11.9 m to 30.7 m) Some sand, trace silt, trace cobble, well graded, black, moist, trace [WASTE ROCK] BOULDER (30.7 m to 31.2 m) Fractured, dry, grey. 31 SAND AND GRAVEL (31.2 m to 32.0 m) Trace cobble, trace silt, well graded, loose, subangular, brown grey, drv. some coal [WASTE ROCK] 32 GRAVEL (32.0 m to 37.3 m)
Trace cobble, some sand, well graded, angular to subangular, dark brown, wet. [WASTE ROCK] 33 34 35 36 ₹ G05 Sample G05 (35.9 m to 36.1 m): Grain size analysis - Gravel 86%, Sand 14%, Fines 0%. 37 GRAVEL (37.3 m to 39.0 m) Silty, trace cobble, trace sand, rounded to subrounded, black, moist, some orange, brown and yellow staining, humus rich.

[POSSIBLE ORIGINAL GROUND SURFACE] 38 39 BOULDER (39.0 m to 39.9 m) Pulverized, grey to white, dry. (Continued on next page)

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Logged by: EK

Fluid: Water

υιр	(aegi	rees fro	om hor	casing: 152.4 mm OD	Case	d To ((m): 4	14.2		Logged by: EK Reviewed by: TKW	
9 Depth (m)	Sample Type	Sample No.	Symbol	Lithological Description	Backfill Details	SPT/LPT Blows Per 150mm	N		ntent & imits W _L %	Lab Tests and Comments	Elevation (m)
41 42 43	•	G06		SAND AND GRAVEL (39.9 m to 41.1 m) Silty, subrounded to subangular, loose, black, wet, trace weathering, humus rich. BEDROCK (41.1 m to 44.2 m) Dry, friable, grey.						Sample G06 (40.7 m to 40.9 m): Grain size analysis - Gravel 37%, Sand 40%, Fines 22%.	
45 46 47				END OF DRILL HOLE AT 44.2 m Notes: 1. Drill hole was terminated after encountering bedrock. 2. The moisture content, fines content, and in-situ density of the soil may be altered by heat and vibration generated by the sonic drilling method. 3. Interpretation of bedrock type is not provided as the rock was pulverized by the sonic drilling method. 4. Monitoring well (FR_MW-HC1A) was installed with a 50.8 mm diameter, schedule 40 solid PVC from surface to 39.5 mbgs, and a 0.25 mm slot schedule 40 PVC screen from 39.5 mbgs to 41.0 mbgs. 5. The monitoring well (FR_MW-HC1A) was installed with a 50.8 mm diameter, schedule 40 solid PVC screen from 39.5 mbgs to 41.0 mbgs. and from 41.5 m bgs, bentonite chips from surface to 39.2 m bgs, and from 41.5 m bgs to 44.2 m bgs. 6. The monitoring well was completed at surface with 0.85 m PVC stickup and a protective steel monument cemented in place. 7. The water level was measured at 30.1 m bgs on August 2, 2021. 8. Borehole collar coordinates are from handheld GPS (Garmin GPSmap 64x), uncertainty +/- 3 m.							
48											
	<u> </u>	BG	C EI	VGINEERING INC. Print Date: 23/09/2	021					Teck	

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Dip (degrees from horizontal): -90

Page 1 of 4 DRILL HOLE # FR_MW-HC1B Project: Henretta Site Investigation Project No.: 0797032 Location: Henretta Spoil Start Date: 01/08/2021 Drill Designation: Gus Pech Sonicor 50 Survey Method: Handheld GPS Coordinates (m): 652,262E, 5,566,590N Drilling Contractor: Earth Drilling Finish Date: 01/08/2021 Ground Elevation (m): Drill Method: Sonic Final Depth of Hole (m): 36.3 Datum: UTM NAD83, Zone 11N Core: 97.9 mm Depth to Top of Rock (m): N/A Dip (degrees from horizontal): -90 Fluid: Water Logged by: EK Casing: 152.4 mm OD Cased To (m): 36.3 Reviewed by: TKW Backfill
Details
SPT/LPT Blows
Per 150mm SPT/LPT (Blows/300mm) Sample Type Elevation (m) Lab Tests Sample No. Depth (m) Lithological Description and Symbol Moisture Content & Comments Atterberg Limits W₂% W% W₁% ×—— 0 ——> 20 40 60 80 -0-[WASTE ROCK]
Refer to twin hole FR_MW-HC1A log for detailed lithological 2 3 5 6 7 8 - 9 (Continued on next page) **Teck** BGC ENGINEERING INC. Print Date: 23/09/2021

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Page 2 of 4 DRILL HOLE # FR_MW-HC1B Project: Henretta Site Investigation Project No.: 0797032 Location: Henretta Spoil Start Date: 01/08/2021 Drill Designation: Gus Pech Sonicor 50 Survey Method: Handheld GPS Coordinates (m): 652,262E, 5,566,590N Drilling Contractor: Earth Drilling Finish Date: 01/08/2021 Ground Elevation (m): Drill Method: Sonic Final Depth of Hole (m): 36.3 Datum: UTM NAD83, Zone 11N Core: 97.9 mm Depth to Top of Rock (m): N/A Dip (degrees from horizontal): -90 Fluid: Water Logged by: EK Casing: 152.4 mm OD Cased To (m): 36.3 Reviewed by: TKW Backfill
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Per 150mm SPT/LPT (Blows/300mm) Sample Type Elevation (m) Lab Tests Sample No. Depth (m) Lithological Description and Symbol Moisture Content & Comments Atterberg Limits W₂% W% W₁% ×—— 0 ——> 20 40 60 80 -10 [WASTE ROCK]
Refer to twin hole FR_MW-HC1A log for detailed lithological 12 13 14 15 16 17 18 - 19 (Continued on next page) **Teck** BGC ENGINEERING INC.

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DRILL HOLE # FR_MW-HC1B Page 3 of 4 Project: Henretta Site Investigation Project No.: 0797032 Location: Henretta Spoil Start Date: 01/08/2021 Drill Designation: Gus Pech Sonicor 50 Survey Method: Handheld GPS Coordinates (m): 652,262E, 5,566,590N Drilling Contractor: Earth Drilling Finish Date: 01/08/2021 Ground Elevation (m): Drill Method: Sonic Final Depth of Hole (m): 36.3 Datum: UTM NAD83, Zone 11N Core: 97.9 mm Depth to Top of Rock (m): N/A Dip (degrees from horizontal): -90 Fluid: Water Logged by: EK Casing: 152.4 mm OD Cased To (m): 36.3 Reviewed by: TKW Backfill
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Per 150mm SPT/LPT (Blows/300mm) Sample Type Elevation (m) Lab Tests Sample No. Depth (m) Lithological Description and Symbol Moisture Content & Comments Atterberg Limits W₂% W% W₁% ×—— 0 ——> 20 40 60 80 -20 [WASTE ROCK]
Refer to twin hole FR_MW-HC1A log for detailed lithological 21 22 23 24 25 26 27 28 29 (Continued on next page) **Teck** BGC ENGINEERING INC.

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DRILL HOLE # FR_MW-HC1B Page 4 of 4 Project: Henretta Site Investigation Project No.: 0797032 Location: Henretta Spoil Drill Designation: Gus Pech Sonicor 50 Start Date: 01/08/2021 Survey Method: Handheld GPS Coordinates (m): 652,262E, 5,566,590N Drilling Contractor: Earth Drilling Finish Date: 01/08/2021 Ground Elevation (m): Drill Method: Sonic Final Depth of Hole (m): 36.3 Datum: UTM NAD83, Zone 11N Core: 97.9 mm Depth to Top of Rock (m): N/A Dip (degrees from horizontal): -90 Fluid: Water Logged by: EK Casing: 152.4 mm OD Cased To (m): 36.3 Reviewed by: TKW Backfill
Details
SPT/LPT Blows
Per 150mm SPT/LPT (Blows/300mm) Sample Type Elevation (m) Lab Tests Sample No. Depth (m) Lithological Description and Symbol Moisture Content & Comments Atterberg Limits W₂% W% W₁% ×—— 0 ——> 20 40 60 80 -30 [WASTE ROCK] Refer to twin hole FR_MW-HC1A log for detailed lithological 31 32 33 34 35 36 END OF DRILL HOLE AT 36.3 m 1. Monitoring well (FR MW-HC1B) was installed with a 50.8 mm 37 diameter, schedule 40 solid PVC from surface to 32.9 m bgs, and a 0.25 mm slot schedule 40 PVC screen from 32.9 m bgs to 36 m bgs. 2. The monitoring well was completed with 10-20 filter sand from 32.6 m bgs to 36.3 m bgs, and bentonite chips from surface to 32.6 m bgs.
3. The monitoring well was completed at surface with 0.79 m PVC stickup and a protective steel monument cemented in place.
4. The water level was measured at 30.3 m bgs on August 2, 2021. 38 5. Borehole collar coordinates are from handheld GPS (Garmin GPSmap 64x), uncertainty +/- 3 m. 39

DRILL HOLE # FR_MW-HC2A Page 1 of 7 Project: Henretta Site Investigation Project No.: 0797032 Location: Henretta Spoil Drill Designation: Gus Pech Sonicor 50 Start Date: 27/07/2021 Survey Method: Handheld GPS Coordinates (m): 652,352E, 5,566,598N Drilling Contractor: Earth Drilling Finish Date: 29/07/2021 Ground Elevation (m): Final Depth of Hole (m): 64.0 Drill Method: Sonic Datum: UTM NAD83, Zone 11N Core: 97.9 mm Depth to Top of Rock (m): 62.3 Dip (degrees from horizontal): -90 Fluid: Water Logged by: EK Casing: 152.4 mm OD Cased To (m): 64.0 Reviewed by: TKW SPT/LPT Blows Per 150mm SPT/LPT (Blows/300mm) Sample Type Elevation (m) Lab Tests Sample No. Depth (m) Lithological Description and Symbol Backfill Details Moisture Content & Comments Atterberg Limits W_P% W% ×—— 0 ——> 20 40 60 80 -0 GRAVEL (0.0 m to 2.1 m) Some sand, trace cobble, trace silt, well graded, loose, angular, grey to brown, dry, homogeneous, trace weathering, trace coal. [WASTE ROCK] 2 GRAVEL AND SAND (2.1 m to 4.6 m) Trace cobble, some silt, well graded, loose, angular to subangular, 3 G01 dry, brown grey. [WASTE ROCK] 4.3 m - Becomes GRAVEL, some sand, compact, brown, moist. SAND (4.6 m to 7.0 m) Gravelly, well graded, subangular, loose, grey, dry, homogeneous. [WASTE ROCK] 5 6 7 GRAVEL (7.0 m to 13.7 m) Some sand, trace silt, trace cobble, well graded, angular, dark brown, dry, some coal.
[WASTE ROCK] 8 G02 9 9.9 m - Boulder, fractured, loose, dry, grey. (Continued on next page)

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DRILL HOLE # FR_MW-HC2A Page 2 of 7 Project: Henretta Site Investigation Project No.: 0797032 Location: Henretta Spoil Drill Designation: Gus Pech Sonicor 50 Start Date: 27/07/2021 Survey Method: Handheld GPS Coordinates (m): 652,352E, 5,566,598N Drilling Contractor: Earth Drilling Finish Date: 29/07/2021 Ground Elevation (m): Drill Method: Sonic Final Depth of Hole (m): 64.0 Datum: UTM NAD83, Zone 11N Core: 97.9 mm Depth to Top of Rock (m): 62.3 Dip (degrees from horizontal): -90 Fluid: Water Logged by: EK Casing: 152.4 mm OD Cased To (m): 64.0 Reviewed by: TKW SPT/LPT Blows Per 150mm SPT/LPT (Blows/300mm) Sample Type Elevation (m) Lab Tests Sample No. Depth (m) Lithological Description and Backfill Details Symbol Moisture Content & Comments Atterberg Limits W₂% W% W₁% ×—— 0 ——> 20 40 60 80 -10 GRAVEL (7.0 m to 13.7 m) Some sand, trace silt, trace cobble, well graded, angular, dark brown, dry, some coal.
[WASTE ROCK] 12 12.0 m to 13.1 m - COAL Low grade, fractured, loose, black, dry. 13 SAND (13.7 m to 18.5 m) Some gravel, angular to subangular, brown, dry. [WASTE ROCK] 15 • G03 15.4 m to 16.0 m - COAL Low grade, fractured, loose, black, dry. 16 17 17.3 m - Boulders, fractured, dry. 18 GRAVEL (18.5 m to 26.9 m) Trace silt, trace sand, trace clay, well graded, friable, angular to subangular, grey, moist. [WASTE ROCK] - 19 G04 ❖ (Continued on next page)

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DRILL HOLE # FR_MW-HC2A Page 3 of 7 Project: Henretta Site Investigation Project No.: 0797032 Location: Henretta Spoil Drill Designation: Gus Pech Sonicor 50 Start Date: 27/07/2021 Survey Method: Handheld GPS Coordinates (m): 652,352E, 5,566,598N Drilling Contractor: Earth Drilling Finish Date: 29/07/2021 Ground Elevation (m): Drill Method: Sonic Final Depth of Hole (m): 64.0 Datum: UTM NAD83, Zone 11N Core: 97.9 mm Depth to Top of Rock (m): 62.3 Dip (degrees from horizontal): -90 Fluid: Water Logged by: EK Casing: 152.4 mm OD Cased To (m): 64.0 Reviewed by: TKW Backfill
Details
SPT/LPT Blows
Per 150mm SPT/LPT (Blows/300mm) Sample Type Elevation (m) Lab Tests Sample No. Depth (m) Lithological Description and Symbol Moisture Content & Comments Atterberg Limits W_P% W% ×—— 0 ——> 20 40 60 80 -20 GRAVEL (18.5 m to 26.9 m) Trace silt, trace sand, trace clay, well graded, friable, angular to subangular, grey, moist. [WASTE ROCK] 20.8 m - Becomes some cobbles, dry. 21 22 24 25 25.2 m to 26.0 m - COAL Low grade, loose, moist, black. 26 26.0 m - Fractured boulders. 27 GRAVEL AND COBBLES (26.9 m to 49.7 m) Trace sand, well graded, angular, loose, grey, dry, some white staining.
[WASTE ROCK] 28 28.3 m to 28.8 m - COAL Low grade, dry. $28.8\ m$ - Becomes GRAVEL, silty, some sand, trace cobble, compact, subangular, brown, moist, trace weathering. [WASTE ROCK] 29 (Continued on next page)

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Page 4 of 7 DRILL HOLE # FR_MW-HC2A Project: Henretta Site Investigation Project No.: 0797032 Location: Henretta Spoil Drill Designation: Gus Pech Sonicor 50 Start Date: 27/07/2021 Survey Method: Handheld GPS Coordinates (m): 652,352E, 5,566,598N Drilling Contractor: Earth Drilling Finish Date: 29/07/2021 Ground Elevation (m): Drill Method: Sonic Final Depth of Hole (m): 64.0 Datum: UTM NAD83, Zone 11N Core: 97.9 mm Depth to Top of Rock (m): 62.3 Dip (degrees from horizontal): -90 Fluid: Water Logged by: EK Casing: 152.4 mm OD Cased To (m): 64.0 Reviewed by: TKW SPT/LPT Blows Per 150mm SPT/LPT (Blows/300mm) Sample Type Elevation (m) Lab Tests Sample No. Depth (m) Lithological Description and Backfill Details Moisture Content & Comments Atterberg Limits W_P% W% ×—— 0 ——> 20 40 60 80 -30 GRAVEL AND COBBLES (26.9 m to 49.7 m) Trace sand, well graded, angular, loose, grey, dry, some white staining.
[WASTE ROCK] 30.9 m - Trace woody debris. 31 G05 31.8 m - Becomes moist to wet. 32 32.0 m - Becomes GRAVEL AND SAND, some clay, trace silt, trace cobbles, well graded, compact, rounded to subrounded, brown, moist, multilithic, trace wood debris, trace weathering. 33 34 35 35.0 m - Becomes SAND, gravelly, angular, some woody debris (sticks and possible weathered lumber) 36 37 37.0 m - Becomes GRAVEL, sandy, trace silt, poorly graded, subrounded, grey, moist to wet, trace weathering. G06 • 38 38.1 m - Becomes silty. 39 Sample G07 (39.5 m to 39.7 m): Grain size analysis - Gravel 45%, 39.3 m - Becomes wet. Sand 34%, Fines 21%. ₿ G07 (Continued on next page)

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All noted depths are in metres along hole.

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DRILL HOLE # FR_MW-HC2A Page 5 of 7 Project: Henretta Site Investigation Project No.: 0797032 Location: Henretta Spoil Start Date: 27/07/2021 Drill Designation: Gus Pech Sonicor 50 Survey Method: Handheld GPS Coordinates (m): 652,352E, 5,566,598N Drilling Contractor: Earth Drilling Finish Date: 29/07/2021 Ground Elevation (m): Drill Method: Sonic Final Depth of Hole (m): 64.0 Datum: UTM NAD83, Zone 11N Core: 97.9 mm Depth to Top of Rock (m): 62.3 Dip (degrees from horizontal): -90 Fluid: Water Logged by: EK Casing: 152.4 mm OD Cased To (m): 64.0 Reviewed by: TKW Backfill
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SPT/LPT Blows
Per 150mm SPT/LPT (Blows/300mm) Sample Type Elevation (m) Lab Tests Sample No. Depth (m) Lithological Description and Moisture Content & Comments Atterberg Limits W_P% W% ×—— 0 ——> 20 40 60 80 40 GRAVEL AND COBBLES (26.9 m to 49.7 m) Trace sand, well graded, angular, loose, grey, dry, some white staining. [WASTE ROCK] 40.4 m - Becomes silty, some sand. 41.0 m - Becomes sandy. 42 42.3 m - Becomes SILT, gravelly, some clay, trace cobble, grey, moist to dry, compact, trace roots and woody debris. 43 ♦ G08 44 45 46 47 48 49 (Continued on next page) **Teck**

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DRILL HOLE # FR_MW-HC2A Page 6 of 7 Project: Henretta Site Investigation Project No.: 0797032 Location: Henretta Spoil Drill Designation: Gus Pech Sonicor 50 Start Date: 27/07/2021 Survey Method: Handheld GPS Coordinates (m): 652,352E, 5,566,598N Drilling Contractor: Earth Drilling Finish Date: 29/07/2021 Ground Elevation (m): Drill Method: Sonic Final Depth of Hole (m): 64.0 Datum: UTM NAD83, Zone 11N Core: 97.9 mm Depth to Top of Rock (m): 62.3 Dip (degrees from horizontal): -90 Fluid: Water Logged by: EK Casing: 152.4 mm OD Cased To (m): 64.0 Reviewed by: TKW SPT/LPT Blows Per 150mm SPT/LPT (Blows/300mm) Sample Type Elevation (m) Lab Tests Sample No. Depth (m) Lithological Description and Backfill Details Moisture Content & Comments Atterberg Limits W_P% W% ×—— 0 ——> 20 40 60 80 -50 SILT (49.7 m to 50.6 m) Gravelly, trace sand, well graded, dense, rapid dilatency, low ♦ plasticity, brown, wet, white and orange staining, trace coal, organic G09 debris / roots present. \[POSSIBLE ORIGINAL GROUND SURFACE] GRAVEL (50.6 m to 62.3 m) Some silt, trace sand, trace cobble, well graded, very dense, 51 subrounded to subangular, grey brown, dry to moist, stratified. 52 52.0 m to 52.3 m - Becomes SILT, gravelly, moist. 53 54 55 56 56.4 m - Becomes GRAVEL, silty, some cobbles. G10 Ö 57 58 59 59.4 m - Becomes GRAVEL, some silt, some sand, trace clay, trace cobble, dark brown, moist, trace weathering. (Continued on next page) **Teck**

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DRILL HOLE # FR_MW-HC2A Page 7 of 7 Project: Henretta Site Investigation Project No.: 0797032 Location: Henretta Spoil Drill Designation: Gus Pech Sonicor 50 Start Date: 27/07/2021 Survey Method: Handheld GPS Coordinates (m): 652,352E, 5,566,598N Drilling Contractor: Earth Drilling Finish Date: 29/07/2021 Ground Elevation (m): Drill Method: Sonic Final Depth of Hole (m): 64.0 Datum: UTM NAD83, Zone 11N Core: 97.9 mm Depth to Top of Rock (m): 62.3 Dip (degrees from horizontal): -90 Fluid: Water Logged by: EK Casing: 152.4 mm OD Cased To (m): 64.0 Reviewed by: TKW SPT/LPT Blows Per 150mm SPT/LPT (Blows/300mm) Sample Type Elevation (m) Lab Tests Sample No. Depth (m) Lithological Description and Backfill Details Moisture Content & Comments Atterberg Limits W₂% W% W₁% ×—— 0 ——> 20 40 60 80 -60 GRAVEL (50.6 m to 62.3 m) Some silt, trace sand, trace cobble, well graded, very dense, subrounded to subangular, grey brown, dry to moist, stratified. 61 61.5 m - Boulder, fractured, grey, dry. 62 BEDROCK (62.3 m to 64.0 m) Pulverized, grey, dry. 63 END OF DRILL HOLE AT 64.0 m 1. Drill hole was terminated after encountering bedrock.
2. The moisture content, fines content, and in-situ density of the soil may be altered by heat and vibration generated by the sonic drilling 65 method. 3. Interpretation of bedrock type is not provided as the rock was 3. Interpretation of bedrock type is not provided as the rock was pulverized by the sonic drilling method.

4. Monitoring well (FR_MW-HC2A) was installed with a 50.8 mm diameter, schedule 40 solid PVC from surface to 50.2 mbgs, and a 0.25 mm slot schedule 40 PVC screen from 50.2 mbgs to 53.3 mbgs.

5. The monitoring well was completed with 10-20 filter sand from 50. 66 m bgs to 53.6 m bgs, bentonite chips from surface to 50 m bgs, and from 53.6 m bgs to 64.0 m bgs.

6. The monitoring well was completed at surface with 0.91 m PVC stickup and a protective steel monument cemented in place.
7. The water level was measured at 35.4 m bgs on August 2, 2021. 8. Borehole collar coordinates are from handheld GPS (Garmin GPSmap 64x), uncertainty +/- 3 m. 67 68 69

Page 1 of 5 DRILL HOLE # FR_MW-HC2B Project: Henretta Site Investigation Project No.: 0797032 Location: Henretta Spoil Start Date: 30/07/2021 Drill Designation: Gus Pech Sonicor 50 Survey Method: Handheld GPS Coordinates (m): 652,352E, 5,566,597N Drilling Contractor: Earth Drilling Finish Date: 30/07/2021 Ground Elevation (m): Drill Method: Sonic Final Depth of Hole (m): 42.7 Datum: UTM NAD83, Zone 11N Core: 97.9 mm Depth to Top of Rock (m): N/A Dip (degrees from horizontal): -90 Fluid: Water Logged by: EK Casing: 152.4 mm OD Cased To (m): 42.7 Reviewed by: TKW Backfill
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Per 150mm SPT/LPT (Blows/300mm) Sample Type Elevation (m) Lab Tests Sample No. Depth (m) Lithological Description and Symbol Moisture Content & Comments Atterberg Limits W₂% W% W₁% ×—— 0 ——> 20 40 60 80 -0-[WASTE ROCK]
Refer to twin hole FR_MW-HC2A log for detailed lithological 2 3 5 6 7 8 - 9 (Continued on next page) **Teck** BGC ENGINEERING INC. Print Date: 23/09/2021 AN APPLIED EARTH SCIENCES COMPANY

Page 2 of 5 DRILL HOLE # FR_MW-HC2B Project: Henretta Site Investigation Project No.: 0797032 Location: Henretta Spoil Start Date: 30/07/2021 Drill Designation: Gus Pech Sonicor 50 Survey Method: Handheld GPS Coordinates (m): 652,352E, 5,566,597N Drilling Contractor: Earth Drilling Finish Date: 30/07/2021 Ground Elevation (m): Drill Method: Sonic Final Depth of Hole (m): 42.7 Datum: UTM NAD83, Zone 11N Core: 97.9 mm Depth to Top of Rock (m): N/A Dip (degrees from horizontal): -90 Fluid: Water Logged by: EK Casing: 152.4 mm OD Cased To (m): 42.7 Reviewed by: TKW Backfill
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Refer to twin hole FR_MW-HC2A log for detailed lithological 12 13 14 15 16 17 18 - 19 (Continued on next page) **Teck** BGC ENGINEERING INC.

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Page 3 of 5 DRILL HOLE # FR_MW-HC2B Project: Henretta Site Investigation Project No.: 0797032 Location: Henretta Spoil Start Date: 30/07/2021 Drill Designation: Gus Pech Sonicor 50 Survey Method: Handheld GPS Coordinates (m): 652,352E, 5,566,597N Drilling Contractor: Earth Drilling Finish Date: 30/07/2021 Ground Elevation (m): Drill Method: Sonic Final Depth of Hole (m): 42.7 Datum: UTM NAD83, Zone 11N Core: 97.9 mm Depth to Top of Rock (m): N/A Dip (degrees from horizontal): -90 Fluid: Water Logged by: EK Casing: 152.4 mm OD Cased To (m): 42.7 Reviewed by: TKW Backfill
Details
SPT/LPT Blows
Per 150mm SPT/LPT (Blows/300mm) Sample Type Elevation (m) Lab Tests Sample No. Depth (m) Lithological Description and Symbol Moisture Content & Comments Atterberg Limits W₂% W% W₁% ×—— 0 ——> 20 40 60 80 -20 [WASTE ROCK]
Refer to twin hole FR_MW-HC2A log for detailed lithological 21 22 23 24 25 26 27 28 29 (Continued on next page) **Teck** BGC ENGINEERING INC. Print Date: 23/09/2021

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DRILL HOLE # FR_MW-HC2B **Page** 4 of 5 Project: Henretta Site Investigation Project No.: 0797032 Location: Henretta Spoil Start Date: 30/07/2021 Drill Designation: Gus Pech Sonicor 50 Survey Method: Handheld GPS Coordinates (m): 652,352E, 5,566,597N Drilling Contractor: Earth Drilling Finish Date: 30/07/2021 Ground Elevation (m): Drill Method: Sonic Final Depth of Hole (m): 42.7 Datum: UTM NAD83, Zone 11N Core: 97.9 mm Depth to Top of Rock (m): N/A Dip (degrees from horizontal): -90 Fluid: Water Logged by: EK Casing: 152.4 mm OD Cased To (m): 42.7 Reviewed by: TKW Backfill
Details
SPT/LPT Blows
Per 150mm SPT/LPT (Blows/300mm) Sample Type Elevation (m) Lab Tests Sample No. Depth (m) Lithological Description and Symbol Moisture Content & Comments Atterberg Limits W₂% W% W₁% ×—— 0 ——> 20 40 60 80 -30 [WASTE ROCK]
Refer to twin hole FR_MW-HC2A log for detailed lithological 31 32 33 34 35 36 37 38 39 (Continued on next page) **Teck**

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DRILL HOLE # FR_MW-HC2B **Page** 5 of 5 Project: Henretta Site Investigation Project No.: 0797032 Location: Henretta Spoil

Survey Method: Handheld GPS Coordinates (m): 652,352E, 5,566,597N

Ground Elevation (m): Datum: UTM NAD83, Zone 11N Dip (degrees from horizontal): -90 Drill Designation: Gus Pech Sonicor 50

Core: 97.9 mm Fluid: Water

Logged by: EK Reviewed by: TKW Casing: 152.4 mm OD Cased To (m): 42.7

Teck

Start Date: 30/07/2021 Drilling Contractor: Earth Drilling Finish Date: 30/07/2021 Drill Method: Sonic Final Depth of Hole (m): 42.7 Depth to Top of Rock (m): N/A

Depth (m)	Sample Type	Sample No.	Symbol	Lithological Description	Backfill Details	SPT/LPT Blows Per 150mm	Moi	isture Content 8 tterberg Limits W% 40 60 8	VL%	Lab Tests and Comments	Elevation (m)
40- - - - - - - - - - - - -				[WASTE ROCK] Refer to twin hole FR_MW-HC2A log for detailed lithological description.							
- - - 43 - -				END OF DRILL HOLE AT 42.7 m Notes: 1. Monitoring well (FR_MW-HC2B) was installed with a 50.8 mm diameter, schedule 40 solid PVC from surface to 39.3 m bgs, and a 0.25 mm slot schedule 40 PVC screen from 39.3 mbgs to 42.4 mbgs. 2. The monitoring well was completed with 10-20 filter sand from 38.9							
- - 44 - - - - - 45				m bgs to 42.7 bgs, and bentonite chips from surface to 38.9 m bgs. 3. The monitoring well was completed at surface with 0.91 m PVC stickup and a protective steel monument cemented in place. 4. The water level was measured at 35.8 m bgs on August 2, 2021. 5. Borehole collar coordinates are from handheld GPS (Garmin GPSmap 64x), uncertainty +/- 3 m.							
- - - 46 - -											
47 - - - - 48 -											
- - - 49 - - -											
—50 ¹	1		l		l			1 1		ı	

Print Date: 23/09/2021

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Page 1 of 3 DRILL HOLE # FR_MW-HC3A Project: Henretta Site Investigation Project No.: 0797032 Location: Henretta Spoil Drill Designation: Gus Pech Sonicor 50 Start Date: 02/08/2021 Survey Method: Handheld GPS Coordinates (m): 652,580E, 5,566,548N Drilling Contractor: Earth Drilling Finish Date: 03/08/2021 Ground Elevation (m): Drill Method: Sonic Final Depth of Hole (m): 27.4 Datum: UTM NAD83, Zone 11N Core: 97.9 mm Depth to Top of Rock (m): 24.0 Dip (degrees from horizontal): -90 Fluid: Water Logged by: EK Reviewed by: TKW Casing: 152.4 mm OD Cased To (m): 27.4 Backfill
Details
SPT/LPT Blows
Per 150mm SPT/LPT (Blows/300mm) Sample Type Elevation (m) Lab Tests Sample No. Depth (m) Lithological Description and Symbol Moisture Content & Comments Atterberg Limits W_P% W% ×—— 0 ——> 20 40 60 80 -0 COAL (0.0 m to 0.8 m) Fractured, low grade, loose, black, dry. [WASTE ROCK] GRAVEL (0.8 m to 10.0 m)
Some sand, trace cobble, well graded, subangular, brown, moist, trace weathering
[WASTE ROCK] 2 3 3.9 m to 4.5 m - Boulder, fractured, grey, dry. 5 5.1 m - Becomes angular to subangular, dry, trace coal. 6 G01 Ö 7 8 9 9.1 m - Boulder, pulverized, grey, dry. (Continued on next page) **Teck** BGC ENGINEERING INC.

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Page 2 of 3 DRILL HOLE # FR_MW-HC3A Project: Henretta Site Investigation Project No.: 0797032 Location: Henretta Spoil Drill Designation: Gus Pech Sonicor 50 Start Date: 02/08/2021 Survey Method: Handheld GPS Coordinates (m): 652,580E, 5,566,548N Drilling Contractor: Earth Drilling Finish Date: 03/08/2021 Ground Elevation (m): Drill Method: Sonic Final Depth of Hole (m): 27.4 Datum: UTM NAD83, Zone 11N Core: 97.9 mm Depth to Top of Rock (m): 24.0 Dip (degrees from horizontal): -90 Fluid: Water Logged by: EK Casing: 152.4 mm OD Cased To (m): 27.4 Reviewed by: TKW SPT/LPT Blows Per 150mm SPT/LPT (Blows/300mm) Sample Type Elevation (m) Lab Tests Sample No. Depth (m) Lithological Description and Symbol Backfill Details Moisture Content & Comments Atterberg Limits W_P% W% ×—— 0 ——> 20 40 60 80 -10 GRAVEL (10.0 m to 10.7 m) Some sand, trace silt, some cobbles, trace clay, well graded, G02 subangular, grey, moist to wet. [WASTE ROCK] * Sample G02 (10.3 m to 10.5 m): Grain size analysis - Gravel 80%, Sand 14%, Fines 6%. GRAVEL (10.7 m to 14.9 m) Some cobbles, trace sand, trace clay, well graded, rounded to subrounded, grey to brown, moist to wet. [FLUVIAL] 12 13 • G03 GRAVEL (14.9 m to 24.0 m) 15 Trace sand, trace silt, trace cobble, well graded, angular to subangular, brown, wet. [COLLUVIUM] 16 17 18 - 19 Sample G04 (19.4 m to 19.6 m): Grain size analysis - Gravel 86%, G04 ❖ Sand 9%, Fines 5%. 19.8 m - Becomes angular

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(Continued on next page)

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DRILL HOLE # FR_MW-HC3A Page 3 of 3 Project: Henretta Site Investigation Project No.: 0797032 Location: Henretta Spoil Drill Designation: Gus Pech Sonicor 50 Start Date: 02/08/2021 Survey Method: Handheld GPS Coordinates (m): 652,580E, 5,566,548N Drilling Contractor: Earth Drilling Finish Date: 03/08/2021 Ground Elevation (m): Drill Method: Sonic Final Depth of Hole (m): 27.4 Datum: UTM NAD83, Zone 11N Core: 97.9 mm Depth to Top of Rock (m): 24.0 Dip (degrees from horizontal): -90 Fluid: Water Logged by: EK Casing: 152.4 mm OD Cased To (m): 27.4 Reviewed by: TKW SPT/LPT Blows Per 150mm SPT/LPT (Blows/300mm) (E) Sample Type Lab Tests Sample No. Depth (m) Elevation Lithological Description and Symbol Backfill Details Moisture Content & Comments Atterberg Limits W₂% W% W_I% ×—— 0 ——> 20 40 60 80 -20 GRAVEL (14.9 m to 24.0 m) Trace sand, trace silt, trace cobble, well graded, angular to subangular, brown, wet. [COLLUVIUM] 21 22 22.8 m - Becomes GRAVEL AND SAND, trace clay, trace cobble, 23 well graded, angular to subangular, grey, moist, trace weathering. • G05 24 BEDROCK (24.0 m to 27.4 m) Pulverized, dry, grey. 25 26 27 END OF DRILL HOLE AT 27.4 m Notes:

1. Drill hole was terminated after encountering bedrock.

2. The moisture content, fines content, and in-situ density of the soil may be altered by heat and vibration generated by the sonic drilling method.

3. Interpretation of bedrock type is not provided as the rock was pulverized by the sonic drilling method.

4. Monitoring well (FR MW-HC3A) was installed with a 50.8 mm diameter, schedule 40 FVC screen from 18.9 mbgs, and a 0.25 mm slot schedule 40 PVC screen from 18.9 mbgs to 21.9 mbgs.

5. The monitoring well was completed with 10-20 filter sand from 18.6 m bgs to 22.2 m bgs, bentonite chips from surface to 18.5 m bgs, and from 22.2 m bgs to 27.4 m bgs.

6. The monitoring well was completed at surface with 0.83 m PVC stickup and a protective steel monument cemented in place.

7. The water level was measured at 9.3 m bgs on August 3, 2021.

8. Borehole collar coordinates are from handheld GPS (Garmin GPSmap 64x), uncertainty +/- 3 m. 28 29

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DRILL HOLE # FR_MW-HC3B **Page** 1 of 2 Project: Henretta Site Investigation Project No.: 0797032 Location: Henretta Spoil Start Date: 03/08/2021 Drill Designation: Gus Pech Sonicor 50 Survey Method: Handheld GPS Coordinates (m): 652,581E, 5,566,547N Drilling Contractor: Earth Drilling Finish Date: 03/08/2021 Ground Elevation (m): Drill Method: Sonic Final Depth of Hole (m): 14.0 Datum: UTM NAD83, Zone 11N Core: 97.9 mm Depth to Top of Rock (m): N/A Dip (degrees from horizontal): -90 Fluid: Water Logged by: EK Casing: 152.4 mm OD Cased To (m): 14.0 Reviewed by: TKW Backfill
Details
SPT/LPT Blows
Per 150mm SPT/LPT (Blows/300mm) Sample Type Elevation (m) Lab Tests Sample No. Depth (m) Lithological Description and Symbol Moisture Content & Comments Atterberg Limits W₂% W% W₁% ×—— 0 ——> 20 40 60 80 -0-[WASTE ROCK]
Refer to twin hole FR_MW-HC3A log for detailed lithological 2 3 5 6 7 8 - 9 (Continued on next page) **Teck**

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DRILL HOLE # FR_MW-HC3B Page 2 of 2 Project: Henretta Site Investigation Project No.: 0797032 Location: Henretta Spoil Drill Designation: Gus Pech Sonicor 50 Start Date: 03/08/2021 Survey Method: Handheld GPS Coordinates (m): 652,581E, 5,566,547N Drilling Contractor: Earth Drilling Finish Date: 03/08/2021 Ground Elevation (m): Drill Method: Sonic Final Depth of Hole (m): 14.0 Datum: UTM NAD83, Zone 11N Core: 97.9 mm Depth to Top of Rock (m): N/A Dip (degrees from horizontal): -90 Fluid: Water Logged by: EK Casing: 152.4 mm OD Cased To (m): 14.0 Reviewed by: TKW SPT/LPT Blows Per 150mm SPT/LPT (Blows/300mm) Sample Type Elevation (m) Lab Tests Sample No. Depth (m) Lithological Description and Symbol Backfill Details Moisture Content & Comments Atterberg Limits W₂% W% W₁% ×—— 0 ——> 20 40 60 80 -10 [WASTE ROCK] Refer to twin hole FR_MW-HC3A log for detailed lithological description. [FLUVIAL] Refer to twin hole FR_MW-HC3A log for detailed lithological description. 12 13 END OF DRILL HOLE AT 14.0 m Notes:

1. Monitoring well (FR_MW-HC3B) was installed with a 50.8 mm diameter, schedule 40 solid PVC from surface to 10.1 m bgs, and a 0.25 mm slot schedule 40 PVC screen from 10.1 mbgs to 13.1 mbgs. 2. The monitoring well was completed with 10-20 filter sand from 9.8 m bgs to 14.0 bgs, and bentonite chips from surface to 9.8 m bgs. 15 3. The monitoring well was completed at surface with 0.80 m PVC stickup and a protective steel monument cemented in place. 4. The water level was measured at 9.3 m bgs on August 3, 2021.
5. Borehole collar coordinates are from handheld GPS (Garmin GPSmap 64x), uncertainty +/- 3 m. 16 17 18 - 19

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.11	CRIC T ATTA	TTRI	т		Client oal Lim	ited			Borehole I	No. : FR	_BH22_	POTW1A
?))	SNC · LAVA	LIN			cation Potwe	lls				PAGE ²	OF 6	
Orilling Boreh	g Contractor Mud Bay Drilling Co. Ltd. g Method Vibratory Sonic ole Dia. (m) 0.15 Slotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5565188.	(m)	1684 1685		89.554	1	Project Number: Borehole Logged Date Drilled: Log Typed By:	By:	692207 MTB 2022 08 13 LC	
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Le □ Water Le • NAPL □ NAPL	evel 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	P Reading within indicated scale P Reading outside indicated scale Soil Vapour (ppm)	sı	olid PVC otted PVC ame 1: FR_	MW22_POTW1
<u>ă</u>	Soil Des	cription		Stra	San	San	В	% 10	10 ² 10 ³ 10 ⁴			
1—————————————————————————————————————	SAND and GRAVEL, fine to coarse coarse sand, some silt, well grant Between 0.0 m and 0.6 m - organism and 0.6 m -	rse sand, fine	e to coarse	NOTICE TO A SECOND SECO				100				— CEMENT-BENTONITE

	CRIC. I ANIA	TINI	To		Client oal Lin	nited			Borehole	No. : FR_BH22_POTW1A
>))	SNC+LAVA	LIIN			cation Potwe	ells				PAGE 2 OF 6
Drilling Boreho	Contractor Mud Bay Drilling Co. Ltd. Method Vibratory Sonic Die Dia. (m) 0.15 Outled Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5565188.	(m)	1684 1685	2 08 18 1.332 5.324 ing: 6511	189.55	54	Project Number: Borehole Logged Date Drilled: Log Typed By:	692207 d By: MTB 2022 08 13 LC
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Le ⊽ Water Le • NAPL ○ NAPL	vel 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	 Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm) 	Solid PVC Slotted PVC Well Name 1: FR_MW22_POTW1A
Del	Soil Desc	cription		Strat	Sam Core	Sam	Blo	% 1	0 ¹ 10 ² 10 ³ 10	2
11-	SAND and GRAVEL, fine to coar gravel, subrounded to subangula wet. (continued)							80		
13-	GRAVELLY SAND, fine to coars subrounded to subangular, brown at 14.3 m - some gravel, fine, su	n, loose, wet.						80		
16-	SAND and SILT, fine sand, trace containing cobbles, brown, loose	clay, poorly on the control of the c	graded, wet.							BENTONITE
19-	SILT and CLAY, brown, firm, me	dium plasticit	ty, damp.	NOT	ES			100		

			<u> IIN</u>	<u>\</u>				
A) CRIC I A	74 T TRI	Teck	Client Coal Li	mited			Borehole N	lo. : FR_BH22_POTW1A
*) SNC+LAY	ALIN		Locatior O - Potw				I	PAGE 3 OF 6
Drilling Contractor Mud Bay Drilling Co Drilling Method Vibratory Sonic Borehole Dia. (m) 0.15 Pipe/Slotted Pipe Dia. (m) 0.05/0.05	. Ltd.	Date Monitored Ground Surface Elev. (n Top of Casing Elev. (m) Northing: 5565188.275	n) 168 168	22 08 18 34.332 35.324 sting: 651	189.554	E	Project Number: Borehole Logged Date Drilled: Log Typed By:	692207 By: MTB 2022 08 13 LC
Drilling Legend Sample Interval Vibrasonic Light Graph Control of the control of	Water/NA ▼ Water Le □ Water Le • NAPL ○ NAPL	1 '	Sample Interval	Sample Number	Blow Count	• Re ind	eading within dicated scale reading outside dicated scale roll Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: FR_MW22_POTW1/
Soil [Description		San	San	BB %	1 ₀ ¹ 1	0 ² 10 ³ 10 ⁴	
SILT and CLAY, brown, firm (continued) 21 SILT and GRAVEL, fine to subangular, some clay, dar plasticity, damp, till-like. 22 23 24 27 28 30	coarse gravel, sub	rounded to on-plastic to low	OTES		100			BENTONITE

				<u> </u>	NA	<u> </u>			1	
112	CRIC T ATTA	TTRT		(Teck C	Client oal Lin	nited			Borehole N	lo. : FR_BH22_POTW1A
*))	SNC+LAVA	LIN			cation - Potwe	ells				PAGE 4 OF 6
Drilling Boreho	Contractor Mud Bay Drilling Co. Ltd. Method Vibratory Sonic Dle Dia. (m) 0.15 Otted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface E Top of Casing Ele Northing: 5565188	v. (m)	1684 1685	2 08 18 1.332 5.324 ing: 651	189.55	4	Project Number: Borehole Logged Date Drilled: Log Typed By:	692207 By: MTB 2022 08 13 LC
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Le ⊽ Water Le • NAPL ○ NAPL	vel 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	indicated scale	Solid PVC Slotted PVC Well Name 1: FR_MW22_POTW1
ă	Soil Des	cription		Stra	San	San	В	% 101	10² 10³ 10⁴	
31-32-	SILT and GRAVEL, fine to coars subangular, some clay, dark broplasticity, damp, till-like. (continual)	wn, dense, no	rounded to on-plastic to low							BENTONTE
33-	SILTY SAND, fine to coarse sar subrounded to subangular, som brown, loose, wet. SILT and SAND, fine sand, som subrounded to subangular, dark moist.	e clay, well gr	aded, dark gravel, fine,		*************************************			100		FR_MW22_POTW1
34	At 33.8 m - some gravel. SILTY, GRAVELLY SAND, fine gravel, subrounded to subangula dark brown, loose, wet.									SAND
35								100		
37-	SAND and SILT, fine sand, poor non-plastic, moist.	ly graded, dar	k brown, loose,							
39-								100		BENTONITE
				NOT	TES					

			'		Cliont					
•))	SNC+LAVA	LIN	Т	eck C	Client Coal Lin	nited			Borehole	No. : FR_BH22_POTW1A
	OITO DILITI				- Potwe	ells				PAGE 5 OF 6
Drilling Boreho	g Contractor Mud Bay Drilling Co. Ltd. g Method Vibratory Sonic ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5565188.	. (m) ´	1684 1685	2 08 18 4.332 5.324 ting: 651	189.55	54	Project Number: Borehole Logged Date Drilled: Log Typed By:	692207 I By: MTB 2022 08 13 LC
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NAI ▼ Water Le ⊽ Water Le • NAPL ○ NAPL	vel 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: FR_MW22_POTW1A
De	Soil Desc	cription		Straf	Sam	Sam	Blo	ૐ % 1	0 ¹ 10 ² 10 ³ 10	4
42-	SAND and SILT, fine sand, poorly non-plastic, moist. (continued) SILTY SAND, fine to coarse sand subrounded to subangular, well gwet.	d, some grave	el, fine to coarse,					100		
46	SILTY SAND, fine to medium sar coarse, subrounded to subangular	wn, dense, da	vel, fine to					100		BENTONITE
				NO.	TES					

	CRIC. I ANIA	TINI	Т		Client oal Lin	nited				Borehole N	No. : FR_BH22_POTW1A
>))	SNC+LAVA	LIIN			cation - Potw e						PAGE 6 OF 6
Drilling Boreho	Contractor Mud Bay Drilling Co. Ltd. Method Vibratory Sonic Dle Dia. (m) 0.15 Ottled Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5565188.	r. (m) ´	1684 1688	2 08 18 4.332 5.324 ting: 6511	189.55	54		Project Number: Borehole Logged Date Drilled: Log Typed By:	692207 By: MTB 2022 08 13 LC
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Le ⊽ Water Le • NAPL	vel 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Sount	very	•	indicated scale Reading outside indicated scale Soil Vapour	Solid PVC Slotted PVC Well Name 1: FR_MW22_POTW1A
Depth	Soil Desc			Stratign	Sample Core R	Sample	Blow Count	% Recovery		(ppm)	
- 50-			5 4		0,0				10¹	10 ² 10 ³ 10 ⁴	
51-	SILTY SAND, fine to medium sar coarse, subrounded to subangula (continued)	nd, some gra ar, dark brow	vel, rine to n, dense, moist.					100			
52-	BEDROCK, siltstone, dark grey,	dry.						100			BENTONITE
53-											
54	Bottom of hole at 54.0 m.								•		
55											
56											
57-											
58-											
59											
				NOT	ΓES						

					<u>NA</u>							
. N	CRIC. T ANIA	TINI	т		Client oal Lim	ited			Borehole I	No. : F	R_BH22_P	OTW1B
?))	SNC+LAVA	LIN			cation Potwe	lls				PAGE	1 OF 2	
Orilling Boreh	g Contractor Mud Bay Drilling Co. Ltd. g Method Vibratory Sonic ole Dia. (m) 0.15 slotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5565187.	(m)	1684 1685		189.05	66	Project Number: Borehole Logged Date Drilled: Log Typed By:	Ву:	692207 MTB 2022 08 15 LC	
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Le □ Water Le • NAPL □ NAPL	evel 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count		Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)		Solid PVC Slotted PVC Name 1: FR_M	W22_POTW1
<u>ă</u>	Soil Des	cription		Stra	San	San	B	% 10	0 ¹ 10 ² 10 ³ 10 ⁴		П	
3—	SAND and GRAVEL, fine to coarse coarse sand, some silt, well grad Between 0.0 m and 0.6 m - organism and 3.7 m - wet. At 3.7 m - wet.	rse sand, fine	e to coarse					50 50 70 70		▼ ////////////////////////////////////		SEMENT-BENTONITE

	CRIC. I ANIA	TINI	To		Client oal Lin	nited				Borehole N	No. : FR_BH22_POTW1B
 ?))	SNC+LAVA	LIN			cation Potwe						PAGE 2 OF 2
Drilling Boreho	Contractor Mud Bay Drilling Co. Ltd. Method Vibratory Sonic ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5565187.	(m)	1684 1685	2 08 18 4.308 5.379 ting: 6511	189.05	56		Project Number: Borehole Logged Date Drilled: Log Typed By:	692207 By: MTB 2022 08 15 LC
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Le ⊽ Water Le • NAPL ◇ NAPL	evel 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	• •	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: FR_MW22_POTW1B
Dec	Soil Des	cription		Strati	Samp	Samp	Blov	8 % 1	1 ₀ 1	10² 10³ 10⁴	
11-	SAND and GRAVEL, fine to coar gravel, subrounded to subangula wet. (continued)							70			BENTONITE
13-	GRAVELLY SAND, fine to coars subrounded to subangular, brow At 14.3 m - some gravel, fine, su	n, loose, wet.						50			FR_MW22_POTW1B
15	SAND and SILT, fine sand, trace occasional cobbles, brown, loose	clay, poorly on the clay,	graded, , wet.								BENTONITE
18-	Bottom of hole at 17.4 m.			NOT	ES						

Contractor Mud Bay Drilling Co. Ltd. Method Vibratory Sonic e Dia. (m) 0.15 otted Pipe Dia. (m) 0.05/0.05 Drilling Legend Sample Interval Vibrasonic Soil Description of Control of Contr	Water/NAI ▼ Water Le ⊽ Water Le • NAPL ◇ NAPL	Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5565187. PL Levels vel 1	FRO -	1684 1685	11s 2 08 18 3.345	188.530		Project Number: Borehole Logged Date Drilled: Log Typed By:	PAGE	1 OF 1 692207 MTB 2022 08 1	
Contractor Mud Bay Drilling Co. Ltd. Method Vibratory Sonic e Dia. (m) 0.15 sted Pipe Dia. (m) 0.05/0.05 Drilling Legend Sample Interval Vibrasonic Soil Description	Water/NAI ▼ Water Le ⊽ Water Le • NAPL ◇ NAPL	Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5565187.	ev. (m) (m) 167	2022 1684 1685	2 08 18 3.345 3.354	188.530		Project Number: Borehole Logged Date Drilled:		692207 MTB 2022 08 1	
Method Vibratory Sonic e Dia. (m) 0.15 otted Pipe Dia. (m) 0.05/0.05 Drilling Legend Sample Interval Vibrasonic Soil Description	▼ Water Le ⊽ Water Le • NAPL ○ NAPL	Ground Surface Ele Top of Casing Elev. Northing: 5565187. PL Levels vel 1	(m) 167	1684 1685	.345 5.354	188.530		Borehole Logged Date Drilled:	Ву:	MTB 2022 08 1	6
Sample Interval Vibrasonic Soil Desc	▼ Water Le ⊽ Water Le • NAPL ○ NAPL	vel 1	Plot					Log Typed by.		LC	
			Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	indicated scale		Solid PVC Slotted PVC Name 1: FF	C R_MW22_POTW1
SANDY CRAVEL fine to coorse	cription		Stra	San	San	ВЫ	₽ 8 10¹	10 ² 10 ³ 10 ⁴			
silt, well graded, brown, loose, d Between 0.3 m and 0.6 m - orga	amp.	unded, some				2					—— BENTONITE FR_MW22_POTW1
			NOT	ES							
	Bottom of hole at 8.5 m.	Bottom of hole at 8.5 m.	Bottom of hole at 8.5 m.		Bottom of hole at 8.5 m. NOTES						

Drilling Contractor Mud Bay Drilling Co. Ltd. Drilling Method Vibratory Sonic Ground Surface Ele Top of Casing Elev. Northing: 5565024.* Pipe/Slotted Pipe Dia. (m) 0.05/0.05 Water/NAPL Levels	Loca FRO - Pov. (m) (m) 168	2022 0 1679.6 1680.5	\$ 12 514 519 g: 65103	39.776 Blow Count % Recovery	•	Project Number Borehole Logge Date Drilled: Log Typed By: Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	PAG	692200 MTB 2022 0 LC Solid PV	7 7 8 07 C PVC : FR_MW22_	
Drilling Contractor Drilling Method Sorehole Dia. (m) 0.15 Top of Casing Elev. Northing: 5565024. Pipe/Slotted Pipe Dia. (m) 0.05/0.05	v. (m) (m) 168	2022 0 1679.6 1680.5 Easting	08 12 614 619 g: 65103	Blow Count % Recovery	•	Borehole Logge Date Drilled: Log Typed By: Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	of	69220; MTB 2022 0 LC Solid PV	7 8 07 /C PVC : FR_MW22_	
Drilling Method Dia. (m) 0.15 Top of Casing Elev. Northing: 5565024. Pipe/Slotted Pipe Dia. (m) 0.05/0.05 Northing: 5565024. Drilling Legend Sample Interval Vibrasonic Water/NAPL Levels Water Level 1 Water Level 2 NAPL NAPL NAPL NAPL NAPL NAPL Soil Description SANDY GRAVEL, fine to coarse gravel, subrounded, fine to coarse sand, well graded, brown, loose, damp.	(m) 168	1679.6 1680.5 Easting	614 619 g: 65103	Blow Count % Recovery	•	Borehole Logge Date Drilled: Log Typed By: Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	of	MTB 2022 0 LC Solid PV Slotted F	8 07 /C PVC : FR_MW22_	
Sample Interval Vibrasonic Water/NAPL Levels Water Level 1 Water Level 2 NAPL NAPL NAPL NAPL NAPL At 0.9 m - wet.	Stratigraphy Plot	Sample Interval Core Run	Sample Number	- 0	•	indicated scale Reading outside indicated scale Soil Vapour (ppm)	01	Slotted F	PVC : FR_MW22_	
Soil Description SANDY GRAVEL, fine to coarse gravel, subrounded, fine to coarse sand, well graded, brown, loose, damp. At 0.9 m - wet.	Stra	Sam	Sam	- 0	101	10 ² 10 ³ 1			CEMEN	r-bentonite
2— At 0.9 m - wet.		\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\		25			▼// //		CEMEN	T-BENTONITE
SAND and GRAVEL, fine to coarse sand, fine to coarse gravel, subrounded, well graded, brown, loose, wet. GRAVELLY SAND, fine to coarse sand, fine to coarse gravel, subrounded, well graded, brown, loose, wet.				90					BENTON	ιπε

	CRIC. T ANIA	TINI	T		Client oal Lin	nited			Borehole I	No. : FR_BH22_POTW2A
7))	SNC+LAVA	LII			cation Potwe					PAGE 2 OF 7
Drilling Boreho	Contractor Mud Bay Drilling Co. Ltd. Method Vibratory Sonic Dle Dia. (m) 0.15 Ottled Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5565024.	(m)	1679 1680	2 08 12 9.614 0.519 ting: 6510)39.77	76	Project Number: Borehole Logged Date Drilled: Log Typed By:	692207 By: MTB 2022 08 07 LC
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Le □ Water Le • NAPL ○ NAPL	vel 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count		Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: FR_MW22_POTW2A
Deptl	Soil Desc			Stratig	Sample Core F	Sample	Blow	% Recovery		
10-				les se					¹ 10 ² 10 ³ 10	
12-	SAND and SILT, fine sand, brown							90		FR_MW22_POTW2A
17	SILT, some sand, fine, poorly grannon-plastic, wet. SILT and CLAY, poorly graded, bewet.							100		BENTONITE
				NOT	TES					

					<u> </u>	<u> </u>					
	CRIC T ATTA	TTAT	т		Client oal Lin	nited			Borehole N	lo. : FR_BH22_POTW2A	
*))	SNC+LAVA		Location FRO - Potwells						PAGE 3 OF 7		
Drilling Boreho	Contractor Mud Bay Drilling Co. Ltd. Method Vibratory Sonic ele Dia. (m) 0.15 otted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5565024.	. (m) ´	1679 1680		039.776	3	Project Number: Borehole Logged Date Drilled: Log Typed By:	692207 By: MTB 2022 08 07 LC	
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Le ▽ Water Le ◆ NAPL ◇ NAPL	vel 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	indicated scale	Solid PVC Slotted PVC Well Name 1: FR_MW22_POTW2A	
De	Soil Des	cription		Strat	Sam Core	Sam	Blo	₩ 10¹	10 ² 10 ³ 10 ⁴		
23-24-25-26-28-29-29-29-29-29-29-29-29-29-29-29-29-29-	SILT and CLAY, poorly graded, wet. (continued) CLAY, some gravel, fine to coarse of subangular, some clay, brown, or subangular, some clay, so	gravel, subrounde gravel, subrou dense, moist, se gravel, subr	ed, brown, firm, nded to till-like.					90		BENTONTE	
30				NOT	ES					[///\lambda	

A) CE	T A T A T 7A	Te		Client oal Lin	ited			Borehole No. : FR_BH22_POTW2A			
7)) 51	NC • LAVA	Location FRO - Potwells							PAGE 4 OF 7		
Drilling Contractor Mud Bay Drilling Co. Ltd. Drilling Method Vibratory Sonic Borehole Dia. (m) 0.15 Pipe/Slotted Pipe Dia. (m) 0.05/0.05		-	Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5565024.1	(m)	1679 1680	2022 08 12 1679.614 1680.519 Easting: 651039.776			Project Number: Borehole Logged Date Drilled: Log Typed By:	692207 By: MTB 2022 08 07 LC	
Depth in Metres	g Legend Sample Interval Vibrasonic	Water/NA ▼ Water Le ∇ Water Le ♠ NAPL ♠ NAPL	evel 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	indicated scale	Solid PVC Slotted PVC Well Name 1: FR_MW22_POTW2	
ă 	Soil Des	scription		Stra	Sarr	Sam	l Blo	Ƴ 8 10¹	1 10 ² 10 ³ 10 ⁴		
SILT and GRAVEL, fine to coarse gravel, subround subangular, some clay, brown, dense, moist, till-lik (continued) SAND and SILT, fine sand, trace clay, poorly grade brown, loose, non-plastic, moist. 33 GRAVELLY SILT, fine to coarse gravel, subrounde subangular, some clay, dark brown, soft, low plastitill-like. 37 At 37.6 m - containing cobbles.	graded, dark				10	0	(ppm)	BENTONITE			
GRAVE subang till-like.	ular, some clay, dark bro	e gravel, subro own, soft, low	ounded to plasticity, damp,								

				Ceck C	Client				Borehole N	lo. : FR_BH22_POTW2A	
•))	SNC·LAVA	LIN		Lo	cation Potwe			PAGE 5 OF 7			
Drilling Boreho	g Contractor Mud Bay Drilling Co. Ltd. g Method Vibratory Sonic ole Dia. (m) 0.15 llotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface El Top of Casing Elev Northing: 5565024	/. (m) ´	1679 1680	2 08 12 9.614 9.519 ing: 651	039.77	6	Project Number: Borehole Logged Date Drilled: Log Typed By:	692207	
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Le ⊽ Water Le • NAPL ○ NAPL	vel 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	indicated scale	Solid PVC Slotted PVC Well Name 1: FR_MW22_POTW2	
ă	Soil Desc	ription		Stra	San	San	BIG	% 10 ¹	10 ² 10 ³ 10 ⁴		
41	GRAVELLY SILT, fine to coarse g subangular, some clay, dark brow till-like. (continued) At 40.2 m - some gravel.	gravel, subro	unded to plasticity, damp,					100			
14	At 45.4 m - some gravel, fine to consubangular.	oarse, subro	unded to					100		BENTONITE	
17-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-	SILT AND GRAVEL, fine to coars subrounded, trace clay, dark brow	e gravel, sul vn, soft, non-	pangular to plastic, wet.					100			
19-11-11-11-11-11-11-11-11-11-11-11-11-1	At 49.4 m - encountered artesian	flow.									
o∪ −				NOT	ES		<u>'</u>				

	SNC+LAVA			C	Client						
	SNC+LAVA	CRIC. I ANTA I INT			oal Lim	ited		Borehole No. : FR_BH22_POTW2A			
Drilling		Location FRO - Potwells							PAGE 6 OF 7		
Drilling	Drilling Method Vibratory Sonic (Borehole Dia. (m) 0.15		Date Monitored Ground Surface Elet Top of Casing Elev. Northing: 5565024.1	(m) ´	1679 1680		039.77	' 6	Project Number: Borehole Logged Date Drilled: Log Typed By:	692207 By: MTB 2022 08 07 LC	
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Le ⊽ Water Le ♠ NAPL △ NAPL	vel 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	indicated scale	Solid PVC Slotted PVC Well Name 1: FR_MW22_POTW2/	
Δ	Soil Des	cription		Str	Sar Col	Sar	B	% 10	1 10 ² 10 ³ 10 ⁴		
50	SILT AND GRAVEL, fine to coal subrounded, trace clay, dark bro (continued) Between 52.1 m and 52.4 m - si SILT AND GRAVEL, fine to coal subrounded, trace clay, dark gre Between 54.9 m and 55.2 m - si Between 55.5 m and 56.1 m - si	Itstone, dark g rse gravel, sut ey, dense, wet	plastic, wet. grey. pangular to					100		BENTONITE	
				NOT	ES						

					1/	<u> </u>						
	ONIC TATA	T T T T	Te		Client oal Lin	nited			Borehole N	lo. :	FR_BH22_POTW2A	
SNC·LAVALIN			Location FRO - Potwells						PAGE 7 OF 7			
Drilling Boreho	Contractor Mud Bay Drilling Co. Ltd. Method Vibratory Sonic ble Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5565024.	(m)	1679 1680	2 08 12 9.614 0.519 ting: 6510)39.77	'6	Project Number: Borehole Logged Date Drilled: Log Typed By:	Ву:	692207 MTB 2022 08 07 LC	
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Le □ Water Le • NAPL □ NAPL	evel 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	W	Solid PVC Slotted PVC ell Name 1: FR_MW22_POTW2A	
ă	Soil Description				Sam	Sam	Bloom	₩ % 10¹	10 ² 10 ³ 10 ⁴			
60-	Bottom of hole at 60.1 m.			l v				1			,,,,	
62												
63												
64												
65												
66												
67												
68												
69												
70-				NOT	ES							
1												

			<u> </u>	11	<u> </u>	<u> </u>						
	CRIC TATA	TTNI	Tec		lient al Lim	ited			Borehole I	No. : FR_BH22_POTW2B		
 	SNC+LAVA	Location FRO - Potwells							PAGE 1 OF 2			
Drilling Method Hydrovac/Vibratory Sonic Gro Borehole Dia. (m) 0.15 Top			Date Monitored Ground Surface Elev. Top of Casing Elev. (r Northing: 5565021.27	n) ĺ	1679 1680		038.91	4	Project Number: 692207 Borehole Logged By: MTB Date Drilled: 2022 08 10 Log Typed By: LC			
Depth in Metres	Drilling Legend Sample Interval Vac. Extraction Vibrasonic	Water/NA ▼ Water Le ⊽ Water Le • NAPL ○ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: FR_MW22_POTW2B		
ă	Soil Desc	cription		Stra	San	San	В	% 1	0 ¹ 10 ² 10 ³ 10 ⁴			
1- 2- 3- 5-	coarse sand, well graded, brown At 0.6 m - wet.	se sand, fine	to coarse					70		DENTONITE DENTONITE		
7-	GRAVELLY SAND, fine to coarse subrounded, well graded, brown,	e sand, fine to loose, wet.	o coarse gravel,	·						FR_MW22_POTW2E		
9-					ES			70		SAND		

			(Client					
A	CNICAT ANIATINI	т	eck C	oal Lin	nited			Borehole N	No. : FR_BH22_POTW2B
 7 <i>)</i>	SNC · LAVALIN			cation - Potw e					PAGE 2 OF 2
Drilling	Contractor Mud Bay Drilling Co. Ltd.	Date Monitored			2 08 12			Project Number:	692207
Boreho	Method Hydrovac/Vibratory Sonic le Dia. (m) 0.15 otted Pipe Dia. (m) 0.05/0.05	Ground Surface Ele Top of Casing Elev Northing: 5565021.	. (m)	1680	9.618 0.494 ting: 6510	138 01	1	Borehole Logged Date Drilled: Log Typed By:	By: MTB 2022 08 10 LC
r ipe/3i	Drilling Logand	APL Levels	219	Las	ung. 0510	30.9	0	Reading within	
es	Vac. Extraction ▼ Water	Level 1	t t	_	<u>ь</u>		•	indicated scale Reading outside indicated scale	Solid PVC Slotted PVC
Met	✓ Water • NAPL	Level 2	hy PI	nterva	nump(unt	ery	Soil Vapour	Well Name 1: FR_MW22_POTW2B
Depth in Metres	<u></u> NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	(ppm)	
ă	Soil Description		Stra	San	San	BK	% 10¹	10 ² 10 ³ 10 ⁴	
10	SAND and SILT, fine sand, brown, loose, no	on-plastic, wet.	<u> </u>						SAND
	, , , ,	,		\searrow					
E 4				Ĭ,					BENTONITE
11-	Bottom of hole at 11.3 m.								
	BOLLOTT OF HOLE AL TT.5 III.								
12-									
13-									
14									
E . =									
15									
16									
[]									
17-									
18									
19-									
20-		,							
			NOT	ΓES					

SAND and GRAVEL, fine to coarse sand, fine to coarse gravel, subrounded, trace silt, well graded, brown, loose, wet.	_					NA							
FRO - Potwells PAGE 1 OF 6 Date Monitored Piper Dia. (m) 0.0500.05 Date Mon	~11	CNIC. T AT/A	TTNT	Т			ited			Borehole	No. : Fl	R_BH22_	POTW3A
Dilling Method Hydroxec/Wilminny Sonic Ground Surface Elev (m) 1680.133 Becehole Logared By: MIT Becehole Dailing (m) 0.150.05 Northing 565040.922 (m) 1680.133 Becehole Logared By: MIT Becenole Dailing (m) 0.050.05 Water Level 2 Sample Interval Vibrasonic Water Level 1 Water Level 2 A NAPL Soil Description Soil Description Soil Description SaNDO GRAVEL, fine to coarse gravel, subrounded, fine to	7))	5NC+LAVA	LII				lls				PAGE	1 OF 6	
Water Level 2 Water Level 2 NAPL Soil Description O SANDY GRAVEL, fine to coarse gravel, subrounded, fine to coarse gravel, subrounded, trace silt, well graded, brown, loose, wet. SAND and GRAVEL, fine to coarse sand, fine to coarse gravel, subrounded, trace silt, well graded, brown, loose, wet. SAND and GRAVEL, fine to coarse sand, fine to coarse gravel, subrounded, fine to coarse gravel, subrounded, trace silt, well graded, brown, loose, wet. SAND and GRAVEL, fine to coarse sand, fine to coarse gravel, subrounded, trace silt, well graded, brown, loose, wet. SAND and GRAVEL, fine to coarse sand, fine to coarse gravel, subrounded, trace silt, well graded, brown, loose, wet.	Drillin Boreh	g Method Hydrovac/Vibratory Sonic ole Dia. (m) 0.15		Ground Surface Ele	(m)	1680 1681	.133 .034	145.11	1	Borehole Logge Date Drilled:		MTB 2022 08 11	
Soli Description Solid Descripti	epth in Metres	Sample Interval Vac. Extraction	▼ Water Le ⊽ Water Le • NAPL	evel 1	atigraphy Plot	nple Interval e Run	nple Number	ow Count		indicated scaleReading outside indicated scaleSoil Vapour	Well N	Slotted PVC	MW22_POTW3
SAND and GRAVEL, fine to coarse sand, fine to coarse gravel, subrounded, trace silt, well graded, brown, loose, wet.	<u> </u>	Soil Desc	ription		Stra	Sar	Sar	ă	% 10	0 ¹ 10 ² 10 ³ 10	21	П	
SAND, fine to coarse sand, some gravel, fine to coarse, subrounded, trace silt, well graded, brown, loose, wet. At 9.5 m - trace gravel.	3	SAND and GRAVEL, fine to coars gravel, subrounded, trace silt, well grade subrounded, trace silt, well grade subrounded, trace silt, well grade	se sand, fine	to coarse own, loose, wet.					100				- CONCRETE

.11	CRIC T ATTA	T TRT	1	(Feck C	Client oal Lin	nited				Borehole N	lo. : FR_	BH22_I	POTW3A
*))	SNC · LAVA	LIN			cation • Potwe	ells				I	PAGE 2	OF 6	
Drilling Boreho	Contractor Mud Bay Drilling Co. Ltd. Method Hydrovac/Vibratory Sonic ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface El Top of Casing Elev Northing: 5565040	v. (m) ´	1680 1681	2 08 15 0.133 1.034 ing: 651	145.11	1		Project Number: Borehole Logged Date Drilled: Log Typed By:	By: M	02207 TB 022 08 11	
Depth in Metres	Drilling Legend Sample Interval Vac. Extraction Vibrasonic	Water/NA ▼ Water Le □ Water Le • NAPL □ NAPL	vel 1	 Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	ir • F	Reading within ndicated scale Reading outside ndicated scale Soil Vapour (ppm)	Slot	d PVC ted PVC ne 1: FR_N	vw22_POTw3,
മ്	Soil Desc	ription		Stra	San	Sam	Ble	₩ %	0 ¹	10 ² 10 ³ 10 ⁴			
10— 	SAND, fine to coarse sand, some subrounded, trace silt, well grade (continued) SAND and SILT, fine sand, poorly non-plastic, wet. SAND, fine to coarse sand, trace loose, wet. SAND and SILT, fine sand, poorly non-plastic, wet. At 14.6 m - some clay, low plastic sand, fine, plasticity, moist.	silt, poorly g	raded, brown,					60					- BENTONITE
20				NOT	TES								

	CRIC T ATTA	TTNI	Te		Client oal Lin	nited			Borehole	No. : FR_BH22_POTW3A
?))	SNC+LAVA	LIN			cation - Potw e	ells				PAGE 3 OF 6
Drilling Boreh	g Contractor Mud Bay Drilling Co. Ltd. g Method Hydrovac/Vibratory Sonic ole Dia. (m) 0.15 Slotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5565040.9	(m)	1680 1681	2 08 15 0.133 1.034 ting: 651	145.11	11	Project Number: Borehole Logged Date Drilled: Log Typed By:	
Depth in Metres	Drilling Legend Sample Interval Vac. Extraction Vibrasonic	Water/NA ▼ Water Le ⊽ Water Le • NAPL ◇ NAPL	vel 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	 Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm) 	Solid PVC Slotted PVC Well Name 1: FR_MW22_POTW3A
Dep	Soil Desc	cription		Strati	Samp Core	Samp	Blow	% Re	0 ¹ 10 ² 10 ³ 10	4
21 - 22 - 23 - 24 - 25 - 26 - 27 - 28 - 29 - 30 - 30 - 30 - 30 - 30 - 30 - 30 - 3	SILT AND GRAVEL, silt, fine to c subangular, some clay, occasion density, damp, non-plastic, till-like	coarse gravel nal cobbles, l	. subrounded to	Z				100		BENTONITE

	CRIC T ATTA	TINI	т		Client oal Lin	nited			Borehole I	No. : FR_BH22_POTW3A
7))	SNC+LAVA	LII			cation - Potwe					PAGE 4 OF 6
Drilling Boreh	g Contractor Mud Bay Drilling Co. Ltd. g Method Hydrovac/Vibratory Sonic ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5565040	/. (m)	1680 1681	2 08 15 0.133 1.034 ting: 6511	145.11	1	Project Number: Borehole Logged Date Drilled: Log Typed By:	692207 By: MTB 2022 08 11 LC
Depth in Metres	Drilling Legend Sample Interval Vac. Extraction Vibrasonic	Water/NAI ▼ Water Le ⊽ Water Le • NAPL ○ NAPL	vel 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: FR_MW22_POTW3A
De	Soil Desc	cription		Strat	Sam	Sam	Blo	% 10	1 10 ² 10 ³ 10 ⁴	
31-	SILT AND GRAVEL, silt, fine to c subangular, some clay, occasion density, damp, non-plastic, till-like density, damp, non-plastic, till-like SAND and SILT, fine sand, poorly non-plastic, moist.	nal cobbles, k e. <i>(continued</i>	orown, medium)							
33								100		
35-					>>>>>			100		BENTONITE
38-	SILT and GRAVEL, fine to coarse subangular, some clay, dark brownon-plastic, moist. At 39.3 m - gravelly.							100		
				ПОИ	res					

				<u></u>	1/	<u> </u>						
		T T T T T	т		Client oal Lir	nited			Borehole I	No. : FR_E	3H22_POTW3A	4
(*)	SNC+LAVA	LIN			cation - Potw e					PAGE 5 (OF 6	
Drilling Boreho	g Contractor Mud Bay Drilling Co. Ltd. g Method Hydrovac/Vibratory Sonic ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Electrop of Casing Electron Northing: 5565040.	/. (m)	168 168	2 08 15 0.133 1.034 ting: 651	145.11	1	Project Number: Borehole Logged Date Drilled: Log Typed By:	By: MTE	207 3 2 08 11	
Depth in Metres	Drilling Legend Sample Interval Vac. Extraction Vibrasonic	Water/NA ▼ Water Le ⊽ Water Le • NAPL ∴ NAPL	evel 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count		Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)		PVC ed PVC et 1: FR_MW22_POT	 ГW3A
Dept	Soil Desc			Stratig	Sample Core R	Sample	Blow	% Recovery				
40-				T T				°` 10	0 ¹ 10 ² 10 ³ 10 ¹] 1		
43-44-44-44-44-44-44-44-44-44-44-44-44-4	SILT and GRAVEL, fine to coars, subangular, some clay, dark brown on-plastic, damp. BEDROCK, dark grey, siltstone, and subangular, some clay, dark brown on-plastic, damp.	e gravel, subi wn, medium o	rounded to					100			BENTONITE	
- 49 50				NOT	TES TES						FR_MW22_PO	ТW3А

				Client					
	CRIC. T AND TEN	, т		oal Lir	nited			Borehole I	No. : FR_BH22_POTW3A
7))	SNC+LAVALIN			cation - Potw e					PAGE 6 OF 6
Drilling	Contractor Mud Bay Drilling Co. Ltd.	Date Monitored			2 08 15			Project Number:	692207
Drilling	Method Hydrovac/Vibratory Sonic le Dia. (m) 0.15	Ground Surface Ele Top of Casing Elev		168	0.133 1.034			Borehole Logged Date Drilled:	
	otted Pipe Dia. (m) 0.05/0.05	Northing: 5565040	.922		ting: 6511	145.11	1	Log Typed By:	LC
	Sample interval	IAPL Levels					0	indicated scale	Solid PVC
etres	Vac. Extraction ✓ Water ✓ Water		Plot	-ka	ber		•	Reading outside indicated scale	Slotted PVC
Depth in Metres	♠ NAPL	201012	Stratigraphy Plot	Sample Interval Core Run	Sample Number	onut	very	Soil Vapour	Well Name 1: FR_MW22_POTW3A
epth	<u></u> NAPL		atigra	nple e Ru	nple	Blow Count	% Recovery	(ppm)	
	Soil Description		Str	Sar	Sar	B	% 101	10 ² 10 ³ 10 ⁴	
50	BEDROCK, dark grey, siltstone, dry. (contin	ued)					:	: : :	FR_MW22_POTW3A
E 3				\swarrow					
F = 1				\swarrow			:		
51							100		
= =									SAND
E 3	Between 51.5 m and 52.7 m - brown, weath	ered, fractured.		\searrow			:		
52									,,,,,,
							:		
53-	Bottom of hole at 52.7 m.		IVX	/ <u> </u>				;;	
533									
1									
54									
ŧΞ									
55									
=									
E 3									
56-									
= =									
E 3									
57-									
E =									
E=									
58-									
Εŧ									
59									
F =									
€00									
			NO	ΓES					

	ONIC TATIA	TTAT	To		Client oal Li r	nited			Borehole	No. : FR_BH22_	POTW3B
*/)	SNC+LAVA	LIN			cation Potwe					PAGE 1 OF 1	
Drilling Boreh	g Contractor Mud Bay Drilling Co. Ltd. g Method Hydrovac/Vibratory Sonic ble Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5565042.0	(m) ´	168 168	2 08 15 0.186 1.079 ting: 651	147.51	17	Project Number: Borehole Logged Date Drilled: Log Typed By:	692207 d By: MTB 2022 08 13 LC	
Depth in Metres	Drilling Legend Sample Interval	Water/NA ▼ Water Le ⊽ Water Le • NAPL ∴ NAPL	evel 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count		Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: FR_	MW22_POTW3B
Dept	Soil Des			Stratig	Sample Core R	Sample	Blow	Reo 10		_	
2	SANDY GRAVEL, fine to coarse coarse sand, some silt, well grades and gravel, subrounded, trace silt, well grades and gravel, subrounded, trace silt, well grades and gravel, subrounded, trace silt, well grades and gravel grades and gravel grades.	gravel, subroded, brown, lo	to coarse own, loose, wet.						1 102 103 10		— CEMENT-BENTONITE — BENTONITE — SAND — BENTONITE
10	Bottom of hole at 9.8 m.		Г								
				NOT	ES						

				Client oal Lin				Borehole	No. : FR_BH22_CB-1C
•))	SNC · LAVALIN		Lo	cation					PAGE 1 OF 1
Drilling Boreho	Contractor Mud Bay Drilling Co. Ltd. Method Vibratory Sonic le Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05	Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5564422.	(m) ´	1672 1673	2 09 09 2.736 3.976 ting: 6510)80.18	18	Project Number: Borehole Logged Date Drilled: Log Typed By:	692204 By: MTB 2022 09 09 LC
Depth in Metres	Drilling Legend Sample Interval Vibrasonic Water /N. Water I NAPL NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	Recovery	indicated scale	Solid PVC Slotted PVC Well Name 1: FR_MW22_CB-1C
۵	Soil Description		Stra	San	San	BIG	% 10	1 10 ² 10 ³ 10 ⁴	
2	GRAVELLY SAND, fine to coarse sand, fine subrounded, some silt, well graded, brown, l Between 0 m and 0.6 m - organics present. SILT, some fine sand, poorly graded, brown, non-plastic.						0 100		BENTONITE FR_MW22_CB-1C
7-	Bottom of hole at 6.7 m.			1\					J l aiaiaiaiaiai a∃
9-10-			NOT	ΓES					

					<u> </u>	<u> </u>				
.11		T T	Те	ck C	Client oal Lin	nited			Borehole	No. : FR_BH22_CB-7A
*))	SNC · LAVA	LIN	FRO		cation e Pond	Center				PAGE 1 OF 4
Drilling Boreho	Contractor Mud Bay Drilling Co. Ltd. Method Hydrovac/Vibratory Sonic ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Elev Top of Casing Elev Northing: 5564164.5	(m)	1669 1671	2 08 10 9.987 1.019 ing: 6508	348.721		Project Number: Borehole Logged Date Drilled: Log Typed By:	692204 By: AH 2022 07 29 LC
Depth in Metres	Drilling Legend Sample Interval Vac. Extraction Vibrasonic	Water/NA ▼ Water Le ⊽ Water Le • NAPL ◇ NAPL	vel 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	indicated scale	Solid PVC Slotted PVC Well Name 1: FR_MW22_CB-
ă	Soil Desc	ription		Stra	Sar	Sar	ă	% ₁₀ 1	10 ² 10 ³ 10 ⁴	П
3-3-5-5-6-7-7-8-8-8-8-8-8-8-8-8-8-8-8-8-8-8-8-8	SAND and GRAVEL, containing of SILTY CLAY, poorly graded, grey Between 5.2 m and 6.7 m - firm.	cobbles.						0 100		BENTONITE
9-10-	At 8.8 m - 2 mm seam of sand, fin	ne.		NOT	TES					

					4/					
	CRIC T ATTA	TTAT	Te		Client oal Lin	nited			Borehole	No. : FR_BH22_CB-7A
7))	SNC+LAVA	LIIN	FRO		cation e Pond	Center				PAGE 2 OF 4
Drilling Boreh	g Contractor Mud Bay Drilling Co. Ltd. g Method Hydrovac/Vibratory Sonic ble Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5564164.	(m)	1669 1671	2 08 10 0.987 1.019 ing: 6508	848.72	21	Project Number: Borehole Logged Date Drilled: Log Typed By:	692204 By: AH 2022 07 29 LC
Depth in Metres	Drilling Legend Sample Interval Vac. Extraction Vibrasonic	Water/NA ▼ Water Le ▽ Water Le ◆ NAPL ◇ NAPL	vel 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count		Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: FR_MW22_CB-7A
ă	Soil Desc	cription		Stra	San	San	ğ	% 10	0 ¹ 10 ² 10 ³ 10 ⁴	
11-	SILTY CLAY, poorly graded, grey (continued) At 10.4 m - 2 mm seam of sand, Between 12.8 m and 15.5 m - tra laminated layers of silt with fine s	fine.						100		BENTONITE
16-	SANDY CLAY, fine to medium sa fine to coarse, subrounded, poorl medium plasticity, wet.									
18	SILTY SAND, fine to medium sar fine to coarse, subrounded, well a medium plasticity, wet.							100		
20	Between 19.5 m and 19.8 m - sea	am of silt and	d sand, fine.	NOT	TES					

1)	CRIC . T ATTA	TTRI	1		Client oal Lim	ited			Borehole	No. : FR_BH22_CB-7A
IJ	SNC · LAVA	LIN	FRO		cation e Pond	Center				PAGE 3 OF 4
ling eho	Contractor Mud Bay Drilling Co. Ltd. Method Hydrovac/Vibratory Sonic le Dia. (m) 0.15 otted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface El Top of Casing Elev Northing: 5564164	v. (m) ´	1669 1671		348.72 ⁻	1	Project Number: Borehole Logged Date Drilled: Log Typed By:	692204 By: AH 2022 07 29 LC
	Drilling Legend Sample Interval Vac. Extraction Vibrasonic	Water/NA ▼ Water Le ▽ Water Le ◆ NAPL ◇ NAPL	vel 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count		Peading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: FR_MW22_CB-7
	Soil Desc	cription		Stra	Sar	Sar	ă	% 10	¹ 10 ² 10 ³ 10 ⁴	
1	SILTY SAND, fine to medium sar fine to coarse, subrounded, well medium plasticity, wet. (continue SILTY GRAVEL, fine to coarse g sand, fine to coarse, trace clay, v loose, low plasticity, wet.	graded, grey d) ravel, subrou	brown, soft,					100		
7 - 1	SILTY GRAVEL, fine to coarse g coarse, trace clay, well graded, g									
3-111111								100		
1- <u>1</u>	SANDY GRAVEL, medium to cogravel, subrounded, well graded, brown, loose wet. Between 24.7 m and 25.0 m - silt	some silt, tra	ace clay, dark							BENTONITE
	Between 25.6 m and 25.9 m - silt	ty gravel, den	se.							
7-	Between 26.5 m and 27.1 m - silt	iy gravel, den	se.					100		
	SILTY GRAVEL, fine to coarse g clay, well graded, brown, dense,	ravel, subrou medium plas	nded, some ticity, moist.							
	WEATHERED BEDROCK, siltsto	one, weak, da	ark grey brown.	* * *				100		
ე				NOT	ES		· '	•••		

	CRIC. I ANIA	To		Client oal Lir	nited			Borehole No. : FR_BH22_CB-7A			
•))	SNC+LAVA	LIIN	FRO		cation e Pond	l Center			PAGE 4 OF 4		
Drilling Boreho	g Contractor Mud Bay Drilling Co. Ltd. g Method Hydrovac/Vibratory Sonic ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5564164.	(m)	166 167	2 08 10 9.987 1.019 ting: 6508	348.72	21	Project Number: Borehole Logged Date Drilled: Log Typed By:	692204 I By: AH 2022 07 29 LC	
Depth in Metres	Drilling Legend Sample Interval Vac. Extraction Vibrasonic	Water/NAI ▼ Water Le ▽ Water Le • NAPL ◇ NAPL	vel 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	Recovery	indicated scale	Solid PVC Slotted PVC Well Name 1: FR_MW22_CB-7A	
Dep	Soil Des	cription		Strati	Samp	Samp	Blow	% 101	10² 10³ 10	9	
31-32-33-33-	WEATHERED BEDROCK, siltst (continued) BEDROCK, siltstone, R2 (weak MPa), W1 (fresh weathering),vei infilling 1 - 2 mm, several other justice in the several othe	ength, 5-25 th calcium , no infilling.	7				100		FR_MW22_CB-7A		
38-	Bottom of hole at 35.7 m.			NOT	TES.						
				NOT	ΓES						

Track Coal Limited Coal Limited Coal Limited Coal Limited PAGE 1 OF 3						<u>H</u>	<u> </u>						
Defining Contractor: Must Buy Drilling Co. Ltd. Colling Month of Special Colling Special Colli	.11	ONIC T ATIA	TTAT	Те			nited		Borehole	Borehole No. : FR_BH22_CB-7B			
Total part of the proper of th	*))	SNC+LAVA	LIN	FRO			Center			PAGE 1 OF 3			
Sample Interval Valence of the state of the	Drilling Boreho	Method Hydrovac/Vibratory Sonic ole Dia. (m) 0.15		Ground Surface Elev Top of Casing Elev. ((m)	1669 1670).862).816	350.145	Borehole Logged Date Drilled:	I By: AH 2022 07 30			
Soil Description SAND and GRAVEL, containing cobbles. SAND and GRAVEL, containing cobbles. GRAVEL, fine to coarse, subrounded, some sand, fine to coarse, trace silt, well graded, brown, loose, wet. SILTY CLAY, poorly graded, grey brown, soft, high plasticity, moist. CLAY, some silt, poorly graded, grey brown, soft, high plasticity, moist.	epth in Metres	Sample Interval Vac. Extraction	▼ Water Le ⊽ Water Le • NAPL	vel 1	ıtigraphy Plot	nple Interval e Run	nple Number	ow Count Recovery	 Reading outside indicated scale Soil Vapour 	Slotted PVC			
SRAVEL, fine to coarse, subrounded, some sand, fine to coarse, trace silt, well graded, brown, loose, wet. SILTY CLAY, poorly graded, grey brown, soft, high plasticity, moist. CLAY, some silt, poorly graded, grey brown, soft, high plasticity, moist.	ă	Soil Des	cription		Stra	San	San		0 ¹ 10 ² 10 ³ 10				
	1— 2— 3— 5— 6—	GRAVEL, fine to coarse, subrou coarse, trace silt, well graded, b	nded, some s rown, loose, v y brown, soft,	and, fine to vet.				100		CONCRETE			

		Te		Client Coal Lin	nited			Borehole No. : FR_BH22_CB-7B		
(*)	SNC+LAVALIN			ocation e Pond	Center			PAGE 2 OF 3		
Drilling Boreho	g Contractor Mud Bay Drilling Co. Ltd. g Method Hydrovac/Vibratory Sonic ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05	Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5564161.7	(m) ´	1669 1670	2 08 10 9.862 9.816 ting: 6508	350.14	5	Project Number: Borehole Logged Date Drilled: Log Typed By:	692204 By: AH 2022 07 30 LC	
Depth in Metres	Vac. Extraction Vibrasonic ✓ Water ♠ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Sount		Reading within indicated scale Reading outside indicated scale Soil Vapour	Solid PVC Slotted PVC Well Name 1: FR_MW22_CB-7B	
Depth	Soil Description		Stratign	Sample Core R	Sample	Blow Count	% Recovery	(ppm)		
10— 11— 12— 13— 14— 16— 17— 18—	SILTY CLAY, trace sand, fine, poorly grade high plasticity, moist. At 14.6 m - 5 cm seam of sand, fine. SANDY CLAY, fine to medium sand, some grey brown, soft, medium plasticity, wet. Between 17.1 m and 18.3 m - trace gravel, medium plasticity, wet. SILTY SAND, fine to medium sand, some of fine to coarse, subrounded, well graded, graded medium plasticity, wet. At 18.9 m - 20 cm silt layer.	d, grey brown, soft, silt, poorly graded, fine to coarse.	15		38		% ₁ 100 100 100 100 100 100 100 100 100 10	01 102 103 10	BENTONITE FR_MW22_CB-7B SAND	
20-			NOT	ΓES						

	CRIC T ATTA	T T	Client Teck Coal Limited						Borehole	No. : FR_BH22_CB-7B	
*))	SNC+LAVA	LIN	FRO		cation Pond	Center					PAGE 3 OF 3
Drilling Boreho	Contractor Mud Bay Drilling Co. Ltd. Method Hydrovac/Vibratory Sonic ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5564161.	(m)	1669 1670		350.14	15		Project Number: Borehole Logged Date Drilled: Log Typed By:	692204 By: AH 2022 07 30 LC
Depth in Metres	Drilling Legend Sample Interval Vac. Extraction Vibrasonic	Water/NA ▼ Water Le ⊽ Water Le • NAPL	vel 1	ny Plot	terval	umber	ınt	ry	•	Reading within indicated scale Reading outside indicated scale	Solid PVC Slotted PVC
epth in		© NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery		Soil Vapour (ppm)	Well Name 1: FR_MW22_CB-7B
	Soil Desc	cription		Str	Sa Co	Sa	B	%	10 ¹	10 ² 10 ³ 10 ⁴	
20	SILTY GRAVEL, fine to coarse g sand, fine to coarse, trace clay, v loose, low plasticity, wet.	ravel, subrou vell graded, g	nded, some grey brown,					100			FR_MW22_CB-7B
21	At 21.0 m - dense.										BENTONITE
22-	Bottom of hole at 21.8 m.										
23											
24											
25											
26											
27-											
28-											
29											
30											
				NOT	ES						

	SNC + LAVALIN Client Teck Coal Limited Location								Borehole	No. : FR_BH22_CB-7C
*))	SNC+LAVA	LIN	FRO		cation Pond	Center				PAGE 1 OF 1
Drilling Boreho	g Contractor Mud Bay Drilling Co. Ltd. g Method Hydrovac/Vibratory Sonic ole Dia. (m) 0.15 Slotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5564159.7	(m)	1669 1670	2 08 10 9.704 9.664 ing: 6508	351.14	16	Project Number: Borehole Logged Date Drilled: Log Typed By:	692204 I By: AH 2022 03 22 LC
Depth in Metres	Drilling Legend Sample Interval Vac. Extraction Vibrasonic	Water/NA ▼ Water Le ▼ Water Le • NAPL • NAPL	vel 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count		Property of the control of the contr	Solid PVC Slotted PVC Well Name 1: FR_MW22_CB-7C
ď	Soil Desc	cription		Stra	San	San	В	% 10	1 10 ² 10 ³ 10	
2-	SAND and GRAVEL, containing GRAVEL, fine to coarse gravel, s to coarse, trace silt, well graded,	some sand, fine					100		BENTONITE FR_MW22_CB-7C	
4	SILTY CLAY, poorly graded, grey moist. Bottom of hole at 5.0 m.	y brown, soft,	high plasticity,							SAND
7				NOT						
				NOT	ES					

7	CNICAT ATTA	TTAT	Tecl	Clier k Coal	t Limited		Borehole	Borehole No. : FR_BH22_CB-X3A			
•	SNC+LAVA		FRO C	Locati lode Po	on ond North			PAGE 1 OF 4			
ng ho	Contractor Mud Bay Drilling Co. Ltd. Method Vibratory Sonic le Dia. (m) 0.15 otted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Elev. (Top of Casing Elev. (m Northing: 5564528.345	m) 1	022 08 09 673.952 674.954 asting: 650	0939.085	Project Number: Borehole Logged Date Drilled: Log Typed By:				
	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Le ⊽ Water Le ◆ NAPL ◇ NAPL		Stratigraphy Plot Sample Interval	Core Run Sample Number	Blow Count % Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: FR_MW22_CB-X			
	Soil Des	cription	d	Sar	Sar		10 ¹ 10 ² 10 ³ 10				
	SAND and GRAVEL, fine to coa gravel, subrounded, well graded damp. Between 2.1 m and 2.7 m - cont	, some silt, br	own, loose,		X	20					
1	SILTY SAND, fine, trace gravel,	fine subround	ded poorly		\hat{A}						
	Between 7.6 m and 7.9 m - trace	e silt.			<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<	100		BENTONITE			
	SILTY CLAY, trace sand, fine, p firm, medium plasticity, wet, 1-3 and clay.	oorly graded, mm laminate	grey-brown, d layers of silt	***************************************	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\						
Ε,	At 9.8 m - 20 cm layer of sand, f	ine.			\prec		 	// //			
			N	OTES							

				(Client				Borehole I	No. : FR BH2	2 CB-X3A	
•))	SNC · LAVA	LIN		Lo	oal Lim				Borehole No. : FR_BH22_CB-X3A			
Drilling Boreho	Contractor Mud Bay Drilling Co. Ltd. Method Vibratory Sonic ele Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5564528.3	(m)	2022 08 09 m) 1673.952) 1674.954				Project Number: Borehole Logged Date Drilled: Log Typed By:	PAGE 2 OF 4 692204 By: AH 2022 07 : LC		
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Le ⊽ Water Le • NAPL ○ NAPL	evel 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	indicated scale	Solid PVC Slotted PV Well Name 1: F	C R_MW22_CB-X3/	
ă	Soil Desc	cription		Stra	San	San	ĕ	% 10 ¹	1 10 ² 10 ³ 10 ⁴			
10-	SILTY CLAY, trace sand, fine, por firm, medium plasticity, wet, 1-3 and clay. <i>(continued)</i> At 10.7 m - 30 cm layer of sand,	mm laminate	grey-brown, d layers of silt					100				
12-	At 11.9 m - 10 cm layer of sand, CLAY, some silt, trace sand, fine firm, high plasticity, massive, mo	, poorly grad	ed, grey-brown,									
14-	Between 13.7 m and 14.0 m - lar	ninated silt a	nd clay.					20				
15	Between 15.9 m and 17.4 m - no	recovery, co	ntaining cobbles.								BENTONITE	
18 - 19 - 1	SILTY CLAY, trace gravel, fine to graded, brown, firm, medium plas	o coarse, sub sticity, moist.	rounded, poorly					60				
20 ⁻				NOT	res		1 1	- Ii.	ii	V / I I / /I		

Soil Description SILTY GRAVEL, gravel, fine to coarse, subangular, well graded, some clay, trace sand, fine to coarse, dark brown, dense, wet, till-like. (continued) Between 21.0 m and 22.3 m - damp. SAND and GRAVEL, sand, fine to coarse, gravel, fine to coarse, subrounded, trace silt, well graded, loose, wet. SILTY GRAVEL, fine to coarse, gravel, fine to coarse, gravel, fine to gravel, fine to coarse, subrounded, trace silt, well graded, loose, wet. Between 23.5 m and 24.1 m - silt, some clay, trace gravel, fine.						NA	<u> </u>			T			
The property of the property o	.11	OBIO TATIA	TTNI	т			nited		Borehole	Borehole No. : FR_BH22_CB-X3A			
Illing Method Vibration's Social Service Control Surface Berry (Principles Control Con))	SNC+LAVA	LLIN	FRC			l North			PAGE 3 OF 4			
Sample Internal Water Level 1 Water Level 2 NAPL NAPL NAPL Set 1 Set 2 NAPL NAPL Set 3 Soil Description Water Level 2 Soil Description Well Name 1: FR_MW22_CB-X Well Name	illing oreh	Method Vibratory Sonic ole Dia. (m) 0.15		Ground Surface Electron Top of Casing Elev.	(m) ´	1673 1674	3.952 1.954	939.085	Borehole Logged Date Drilled:	By: AH 2022 07 30			
SILTY GRAVEL, gravel, fine to coarse, subangular, well graded, some clay, trace sand, fine to coarse, dark brown, dense, wet, till-like, (continued) SAND and GRAVEL, sand, fine to coarse, gravel, fine to coarse, subangular, trace clay, well graded, brown, dense, damp, till-like, some clay, trace gravel, fine to coarse, subrounded, trace silt, well graded, loose, wet. SILTY GRAVEL, fine to coarse, subangular, trace clay, well graded, brown, dense, damp, till-like. Between 23.5 m and 24.1 m - silt, some clay, trace gravel, fine. GRAVELLY SILT, fine to coarse, well graded, subangular, trace clay, trace gravel, fine. GRAVELLY SILT, fine to coarse, well graded, subangular, trace sand, fine, dark brown, very dense, low plasticity, damp.	Depth in Metres	Sample Interval	▼ Water Le	vel 1	tigraphy Plot	nple Interval e Run	ıple Number	w Count ecovery	 indicated scale Reading outside indicated scale 				
Between 21.0 m and 22.3 m - damp. SAND and GRAVEL, sand, fine to coarse, gravel, fine to coarse, subrounded, trace sitt, well graded, loose, wet. SILTY GRAVEL, fine to coarse, subrangular, trace day, well graded, brown, dense, damp, til-like. Between 23.5 m and 24.1 m - silt, some clay, trace gravel, fine. Between 28.8 m and 27.4 m - sandy silt, fine sand, trace gravel, fine. GRAVELLY SILT, fine to coarse, well graded, subangular, trace day, fine, dark brown, very dense, low plasticity, damp. GRAVELLY SILT, fine to coarse, well graded, subangular, trace sand, fine, dark brown, very dense, low plasticity, damp.	<u> </u>	Soil Des	scription		Stra	San	San						
SAND and GRAVEL, sand, fine to coarse, gravel, fine to coarse, subrounded, trace silt, well graded, loose, wet. SLITY GRAVEL, fine to coarse, subangular, trace clay, well graded, brown, dense, damp, till-like. Between 23.5 m and 24.1 m - silt, some clay, trace gravel, fine. Between 26.8 m and 27.4 m - sandy silt, fine sand, trace gravel, fine. GRAVELLY SILT, fine to coarse, well graded, subangular, trace sand, fine, dark brown, very dense, low plasticity, damp.	20	graded, some clay, trace sand, dense, wet, till-like. (continued)	fine to coarse,	gular, well dark brown,				100		FR_MW22_CB-3			
graded, brown, dense, damp, till-like. Between 23.5 m and 24.1 m - silt, some clay, trace gravel, fine. Between 26.8 m and 27.4 m - sandy silt, fine sand, trace gravel, fine. GRAVELLY SILT, fine to coarse, well graded, subangular, trace sand, fine, dark brown, very dense, low plasticity, damp.	-	SAND and GRAVEL, sand, fine coarse, subrounded, trace silt, v	to coarse, gra well graded, lo	vel, fine to ose, wet.									
Between 23.5 m and 24.1 m - silt, some clay, trace gravel, fine. Between 26.8 m and 27.4 m - sandy silt, fine sand, trace gravel, fine. GRAVELLY SILT, fine to coarse, well graded, subangular, trace sand, fine, dark brown, very dense, low plasticity, damp.	3-			race clay, well									
Between 26.8 m and 27.4 m - sandy silt, fine sand, trace gravel, fine. GRAVELLY SILT, fine to coarse, well graded, subangular, trace sand, fine, dark brown, very dense, low plasticity, damp.	.4— 		ilt, some clay,	trace gravel,				100					
GRAVELLY SILT, fine to coarse, well graded, subangular, trace sand, fine, dark brown, very dense, low plasticity, damp.	0		andy silt, fine s	sand, trace				100		BENTONITE			
GRAVELLY SILT, fine to coarse, well graded, subangular, trace sand, fine, dark brown, very dense, low plasticity, damp.			n e			>>>>>							
	9	GRAVELLY SILT, fine to coarse trace sand, fine, dark brown, vei	e, well graded, ry dense, low	subangular, olasticity, damp.				100					
	U				NOT	ES							

	CRIC T ATTA	T T	Te		Client oal Lin	nited			Borehole	No. : FR_BH22_CB-X3A
 *))	SNC+LAVA	LIN	FRO		cation le Pond	d North				PAGE 4 OF 4
Drilling Boreho	Contractor Mud Bay Drilling Co. Ltd. Method Vibratory Sonic ble Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5564528.3	(m) ´	167 167	2 08 09 3.952 4.954 ting: 6509	939.08	15	Project Number: Borehole Logged Date Drilled: Log Typed By:	692204 By: AH 2022 07 30 LC
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Le ⊽ Water Le ◆ NAPL ◇ NAPL	vel 1	Stratigraphy Plot Sample Interval Core Run Sample Number		Blow Count		Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: FR_MW22_CB-X3A	
Dept	Soil Des	cription		Stratig	Sampl Core F	Sampl	Blow	% Recovery		
30-			L PY					: : :	ı 1 <i>[7777</i>]	
31-	GRAVELLY CLAY, fine to coarse some silt, dark brown, dense, me	, well graded, ity, moist.							вентонте	
32	Between 31.4 m and 32.5 m - da	amp.								
	Bottom of hole at 32.5 m.			MX						
33- 34- 35- 36- 37- 38-										
40				NOT	ES					

			<u> </u>	IIV						
<i>.</i> 1)	SNC+LAVA	Tecl	Client k Coal L			Borehole	No. : FR_BH22_CB-X3B			
V)	SNC*LAVA	LLIIN	FRO C	Location Lode Po	n nd North		PAGE 1 OF 1			
rilling oreho	g Contractor Mud Bay Drilling Co. Ltd. g Method Vibratory Sonic ole Dia. (m) 0.15 llotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Elev. (Top of Casing Elev. (m Northing: 5564529.526	m) 16	022 08 09 673.956 674.952 asting: 650	0939.705	Project Number: Borehole Logged Date Drilled: Log Typed By:	692204 By: AH 2022 07 31 LC		
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Le □ Water Le ♠ NAPL □ NAPL	∪		Sample Number	Blow Count % Recovery	indicated scale	Solid PVC Slotted PVC Well Name 1: FR_MW22_CB-X3		
۵	Soil Des	cription	i	San	San	98 % 101	1 10 ² 10 ³ 10 ⁴	П		
0	SAND and GRAVEL, fine to coa gravel, subrounded, well graded damp. Between 1.8 m and 3.7 m - cont Between 2.4 m and 3.7 m - wet.	l, some silt, br	own, loose,			40		BENTONITE		
4	SILTY SAND, fine sand, trace gi graded, brown, soft, wet.		prounded, poorly			100		FR_MW22_CB-X		
7	Between 6.4 m and 8.1 m - no g Bottom of hole at 8.1 m.	ıravel.						SAND		
9			N	OTES						

Projec	t: LMP East	: Wall Water Qua	lity Monit	toring Program	Borehole Log	No.:		LMA1
Locatio	n: Ford	ing River Opera	tion		Start Date	06/02/2021	End Date: 06	6/02/2021
Drilling	Contracto	r: Mud Bay Dril	ling		Elevation:	1666.50	Coordinates	
Superv		Teck FRO			Dip: -90 A	zi: 0.00	N	5563844.62
	Method:		Sonic		Total Depth		E	650785.49
	on Graphic		Thick	ness	•	. ().		Donth
(m)	Log	Log	(n	LIGECTINION	Drilling	Screen and Casi	ing Backfill	Construction (m)
1666					Casing (25mm ID; Sched. 80)	Casing (25mm ID; Sched. 80		
1665		SPOIL	3.05	SPOIL	ID; Sch		80)	2
1664					ı (25mm			3
1663					Casing			4
1662		WEATHERED TILL	3.1	WEATHERED TILL				5
1661								6
1660		SILT	0.64	SILT				
1659		SILT	0.58	SILT				7
1000	3	GRAVEL	0.52	GRAVEL				8
1658	-0.0	TILL SANDY TILL	0.26	TILL SANDY TILL				
1657	<u>a </u>	OVER CONSOLDIDAT ED TILL	0.32 0.46	OVER CONSOLDIDATED TILL				9
1656	20	TILL SILT SANDY TILL SILT	0.53 0.29 0.36	TILL SILT SANDY TILL SILT	Plain Screen (25 mm ID; 10 slot; Sched. 80)			10
1655	0.0	SANDY TILL TILL	0.39	SANDY TILL TILL	slot; Sc			12
1654	0.5				ı ID; 10			13
1653		SANDY TILL	2.87	SANDY TILL	(25 mm		DI.	14
1652					Screen	Plain Scree		15
1651		SOIL_ROCK	2	SOIL_ROCK		(25 mm ID 10 slot; Sched. 80	slot; Sched.) 80)	16
1650					Base cap (25 mm ID)	Base cap (25 mm ID	Base cap (25) mm ID)	17
			Coi	nstruction Key		Lithologica	al and Backfill Key	
Figure	No. C.3	ro-Geotechnical Engineer		Surface Casing GRAVEL Casing SILT	SOIL_ROC		Pack O'	VER CONSOLDIDATED TILL SANDY TILL
	33-6299 14 Surrey, V3X	4th Street		Screen TILL Open Hole	Date:	100	²⁰²¹ Ref :	30921

Project: LMP Ea	st Wall Water Qualit	ty Monitor	ing Program	Borehole Log I	No.:	LMA2	
Location: For	ding River Operati	on		Start Date:	06/02/2021	End Date: 06	6/02/2021
Drilling Contract	or: Mud Bay Drilli	ng		Elevation:	1664.76	Coordinates:	1
Supervision:	Teck FRO			Dip: -90 Az	i:0.00	N	5563846.65
Drilling Method:	So	nic		Total Depth		E	650853.14
Elevation Graphi (m) Log	c Lithologial Log	Thickne (m)	ess Description	Drilling	Screen and Cas	ing Backfill	Construction Depth (m)
	GRAVEL	0.2	GRAVEL	80)	Casing	Casing (25mm	_ 0
1664	SOIL	0.76	SOIL	hed.	(25mm ID: Sched. 80) ID; Sched.	
1	GRAVEL	0.66	GRAVEL	Sol		80)	
1663	SILT	0.38	SILT	٥			— 2
1662	SAND	1.29	SAND	Casing (25mm ID; Sched.			3
1661	GRAVEL	0.44	GRAVEL	asir			
				0			4
1660							5
1659	OVER		OVER				6
1658	CONSOLDIDATED TILL	5.39	CONSOLDIDATED TILL				7
1657							8
1656				30)			9
1655				Sched. 80)			10
1654	SANDY TILL	3.04	SANDY TILL				
4.				10 s			11
1653				н Б;			12
1652	TILL	0.52	TILL	25 mr			
	SANDY TILL	0.96	SANDY TILL	Plain Screen (25 mm ID; 10 slot;	Plain Scree	Plain Screen	13
1651				J Scr	(25 mm ID 10 slot;		14
1650	SOIL_ROCK	1.99	SOIL_ROCK		Sched. 80	Schod	
1040				Base cap (25 mm ID)	Base cap	,, cap(∠o	15
1649		<u> </u>		ав∈	(25 mm ID	mm ID)	16
Figure No. C.4	dra Coatachairel Engineerin	St Ca	truction Key urface Casing GRAVEL asing SAND	SOIL_RO	ILL 🔼 Bento	al and Backfill Key onite 🎇 OVER Pack 🔃	CONSOLDIDATED TILL SANDY TILL
	ydro-Geotechnical Engineering 144th Street 3X 1A2		creen SILT pen Hole	Date :	6/25	5/2021 Ref :	20024
	504) 836 0300		pen Hole	Date .	0/20	^{6/2021} Ref:	30921

Project	: LMP East	: Wall Water Qu	ality Mon	itoring Program		Boreho	ole Log N	0.:				LM/	\3
Location	n: Ford	ing River Opera	ation			Start I	Date :	06/02/2021	End	Date: 06	5/02/2021		
Drilling	Contracto	r: Mud Bay Dr	illing			Elevat	tion:	1670.81	Coc	rdinates	!		
Supervis		Teck FRO				Dip: -	90 Azi	0.00	N			55	63951.28
Drilling	Method:		Sonic			Total	Depth (m): 14.35	Ε			(550779.85
	n Graphic Log	Lithologial Log	Thicl	kness m) De	scription		Drilling	Screen and Casi		Backfill	Constru		Depth (m)
1670 —			0.76			ched. 80)		Casing (25mm ID; Sched. 80		Casing (25mm ID; Sched. 80)		начаначанан	_ 0 1
1669 —		GRAVEL	2.05	GRAVEL		Casing (25mm ID; Sched. 80)				33,	ı	MONOMONOMONOM	2
1668 —			0.29			ssing (2							3
1667 —						Ö							4
1666 —	_	SILT	2.66	SILT									5
1665 —		SILI		SILI									6
1664 —			1.43										7
1663 —	0.0	GRAVEL	0.15	GRAVEL									
1662 —	0.0	TILL	1.49	TILL		<u> </u>							<u> </u>
1661 —	-0	SILT	0.76	SILT		ched. 80)							9
1001		GRAVEL	0.28	GRAVEL		t; Sc							10
1660 —	0.0	TILL	1.3	TILL		(Plain Screen (25 mm ID; 10 slot; Sche 2 5							11
1659 —	0.0		0.51			Ш Ш							_
		SOIL_ROCK	0.25 0.43	SOIL_ROCK		25 n							<u> </u>
1658 —		WEATHERED		WEATHERED		creen (Plain Scree		Plain Screen (25 mm			13
1657 —		BEDROCK	1.69	BEDROCK		Plain S		(25 mm ID 10 slot; Sched. 80		ID; 10 slot; Sched. 80)			14
1656 —				шама	ပေရာင	270	€	Ɓase cap (25 mm ID)	Base cap (25			_ 15
Figure N	O'Neill Hyd	ro-Geotechnical Engine	ering Ltd.	Surface Casing Casing Screen	GRAV SI	EL 🎑	SOIL_R	TILL 🤦 Be			ATHERED E	BEDRO	OCK
Y				Open Hole Auth	or·		te : e O'Neill	+	/2021 v :	Ref :	;	30921	
				Auti		quali	CONCIL	2.4411.5	, ·				

	ONIO TATA	T TR T	Те	ck C	Client oal Lin	nited			Borehole N	lo. : FR_BH22_GCMW-6A
V)	SNC+LAVA	LIN	FRO		cation le Pond	South				PAGE 1 OF 2
rilling Soreho	Contractor Mud Bay Drilling Co. Ltd. Method Vibratory Sonic ele Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Elev Top of Casing Elev Northing: 5563917.4	(m) (1665 1666	2 08 18 5.982 5.907 ing: 6510	033.31	3	Project Number: Borehole Logged Date Drilled: Log Typed By:	
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Le ⊽ Water Le • NAPL ○ NAPL	vel 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count		Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: FR_MW22_GCMW-
ă	Soil Desc	cription		Stra	San	San	B	% 10	1 10 ² 10 ³ 10	
2	SILT, some sand, fine to coarse, subrounded, trace clay, containing loose, dry. At 1.5 m - wet. At 2.1 m - boulder. At 2.4 m - dense, dry. SILT AND CLAY, gravelly, fine to coarse, containing cobbles, well moist-wet.	ng cobbles, d	e sand, fine to					50 90		BENTONITE
9-1	BEDROCK, siltstone, dark grey,	dry.		NO1	res			100		

	ONIO TATIA	T T	Te		Client oal Lin	nited				Borehole N	o. : FR_BH22_GCMW-6A
 *))	SNC+LAVA	LIN	FRO		cation e Pond	d South					PAGE 2 OF 2
Drilling Boreh	g Contractor Mud Bay Drilling Co. Ltd. g Method Vibratory Sonic ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5563917.4	(m)	1669 1669	2 08 18 5.982 6.907 ting: 6510)33.31	3		Project Number: Borehole Logged Date Drilled: Log Typed By:	692204 By: MTB 2022 08 17 LC
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Le □ Water Le • NAPL □ NAPL	vel 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	•	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: FR_MW22_GCMW-6A
Ď D	Soil Desc	cription		Stra	San	San	BB	₩ % 1	10¹	10 ² 10 ³ 10 ⁴	
11	BEDROCK, siltstone, dark grey, Between 12.8 m and 13.7 m - we Bottom of hole at 14.3 m.	dry. (continue						100	10'	102 103 107	FR_MW22_GCMW-6A
				NOT	ES						

		T T T T T	Te		Client Coal Lin	nited			Borehole N	No. : FR_BH22_GCMW-6B
(\$)	SNC+LAVA	LIN	FRO		ocation le Pond	l South				PAGE 1 OF 1
Drilling Boreho	g Contractor Mud Bay Drilling Co. Ltd. g Method Vibratory Sonic ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5563916.7	(m)	1666 1666	2 08 18 3.018 3.937 ting: 6510	033.02	:3	Project Number: Borehole Logger Date Drilled: Log Typed By:	
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Le ▽ Water Le • NAPL ◇ NAPL	vel 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: FR_MW22_GCMW-6B
	Soil Desc	cription		Stra	Sam	Sam	Blo	% A	0 ¹ 10 ² 10 ³ 10	
1 1 2	SILT, some sand, fine to coarse, subrounded, trace clay, containin loose, dry. At 1.5 m - wet.	some gravel ng cobbles, d	, fine, ark brown,					70		■ BENTONITE
3-	At 2.4 m - dense, dry.									FR_MW22_GCMW-6E
7	SILT AND CLAY, gravelly, fine to coarse, containing cobbles, well moist. Bottom of hole at 8.2 m.	ocarse, trace graded, dark	e sand, fine to brown, dense,					100		SAND
9-				NOT	ΓES					

.1)	CNIC. T AVIA	TTAT	Те		Client oal Lin	nited			Boreho	le No. : RG_BH_FR2A
V)	SNC+LAVA	LII	Regional		cation ndwate	r Monito	ring			PAGE 1 OF 3
rilling oreho	Contractor Mud Bay Drilling Co. Ltd. Method Vibratory Sonic ole Dia. (m) 0.15 oltted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5556755.6	(m) ´	1569 1569	0 10 08 9.034 9.754 ting: 6534	98.96	3	Project Number: Borehole Logged Date Drilled: Log Typed By:	631283 I By: AH 2020 08 29 VL
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Lev ✓ Water Lev ◆ NAPL ◇ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count		Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: RG_MW_FR2A
De	Soil Desc	cription		Straf	Sam	Sam	Blo	گ % ار	0 ¹ 10 ² 10 ³ 10	
1	SANDY SILT, fine grained sand, plasticity, damp. GRAVEL, fine to coarse, rounded coarse grained, trace silt, well grained.	I to subround	ed, some sand,			FR2A-01		30		SAND
3-4-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-						FR2A-02		70		BENTONITE
6— 7— 8—	SLTY SAND, fine grained sand, be orange-light brown mottling, med	olack-light bro ium dense, lo	own with w plasticity, wet.			FR2A-04				
9	SAND and GRAVEL, fine to coar coarse gravel, rounded to subrou brown, loose, wet.	se grained sa nded, some s	and, fine to silt, well graded,			FR2A-05				
				NOT Bold	Γ ES ded sa	mple de	enote	es sai	mple analyzed.	

				C	Client				Parabal	e No. : RG_BH_FR2A
•))	SNC · LAVA	LIN	Т		cation	nited				
			Regional			r Monito	oring			PAGE 2 OF 3
Orilling Boreho	Contractor Mud Bay Drilling Co. Ltd. Method Vibratory Sonic le Dia. (m) 0.15 otted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5556755.	. (m) ´	1569 1569	0 10 08 9.034 9.754 ting: 6534	198.96		Project Number: Borehole Logged Date Drilled: Log Typed By:	631283 By: AH 2020 08 29 VL
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Lev □ Water Lev • NAPL □ NAPL	/el 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: RG_MW_FR2A
De	Soil Desc	ription		Strat	Sam Core	Sam	Blo	∞ % 10	¹ 10 ² 10 ³ 10 ⁴	
10-	SAND, coarse grained, some grainose, wet. (continued)	vel, fine, rour	nded, grey,					80		
	GRAVEL, fine, rounded, some sa	nd, coarse g	rained.	١٠٠٠						
12-	SILTY SAND, fine grained sand, tight brown mottling, medium density	trace clay, da se, medium p	rk brown with plasticity, wet.							BENTONITE
13-					*************************************	FR2A-06				
14 - 	SAND and GRAVEL, fine to coarse gravel, rounded to subrout brown, loose, wet.	se grained sa nded, well gra	and, fine to aded, grey-dark		> >>>>>>					
15-						FR2A-07				RG_MW_FR2A ————————————————————————————————————
17 -					>>>>			100		
18 -) } } } }					
19-	Below 18.9 m - trace silt, trace cla	ay, dark brow	n.		*************************************	FR2A-08				BENTONITE
	Below 19.8 m - increasing clay/sil	t, increasing	density.							
				NOT Bold	ES led sa	mple de	enote	es san	nple analyzed.	

					<u> </u>					
.1)	CNIC. T ANIA	TINT	т		Client oal Lin	nited			Borehol	e No. : RG_BH_FR2A
))	SNC+LAVA		Regional		cation ndwate	r Monito	oring			PAGE 3 OF 3
illing oreho	Contractor Mud Bay Drilling Co. Ltd. Method Vibratory Sonic ole Dia. (m) 0.15 oltted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5556755.	. (m) ´	1569 1569	0 10 08 9.034 9.754 ting: 6534	198.96	:3	Project Number: Borehole Logged Date Drilled: Log Typed By:	631283 By: AH 2020 08 29 VL
Deptin in Metres	Drilling Legend Sample Interval Vibrasonic	▼ Water Lev ▼ Water Lev • NAPL ○ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: RG_MW_FR2A
	Soil Des	cription		Ţ	တို ပိ	S	В	% 10	0 ¹ 10 ² 10 ³ 10 ⁴	
0	SAND and GRAVEL, fine to coa coarse gravel, rounded to subrou brown, loose, wet. (continued) SILTY SAND, fine to coarse grai rounded to subrounded, trace clamedium plasticity, wet.	unded, well gr	aded, grey-dark			FR2A-09				
3-	Below 22.4 m - increasing densit	y.			>>>					
4	SILTY CLAY, some gravel, fine t subrounded, grey, medium dens	o coarse, roui e, medium pla	nded to asticity, wet.					100		
5-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1	At 25.0 m - hard, damp.					FR2A-10		***************************************		BENTONITE
	At 27 A m. day									
8-1-1-1	At 27.4 m - dry.					FR2A-11				
9-	Dettern of help 1000				\bigotimes					
=======================================	Bottom of hole at 29.3 m.									
Ė				NOT Bold	ES led sa	mple de	enote	es sai	mple analyzed.	

<i>"</i>	SNC+LAVA	TINI	Te	eck C	Client oal Lin	nited				Borehol	e No. : RG_BH_FI	R2B
J)	SINC LAVA		Regional (cation ndwate	r Monite	oring				PAGE 1 OF 1	
lling reh	g Contractor Mud Bay Drilling Co. Ltd. g Method Vibratory Sonic ole Dia. (m) 0.15 Rotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5556755.8	(m)	1569 1569	0 10 08 9.083 9.693 ting: 6538	500.09	91		Project Number: Borehole Logged Date Drilled: Log Typed By:	631283 By: AH 2020 08 30 VL	
	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Le ∇ Water Le • NAPL ○ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	•	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: RG_MW_	FR2B
	Soil Des	cription		Stra	San	San	Blo	₩ %	10 ¹	10² 10³ 10⁴		
0	SILTY SAND, fine to coarse grai loose, medium plasticity, damp, of the coarse, medium plasticity, damp, of the coarse grained, well graded, loose the coarse grained and the coarse grained	organic mater d to subround se, wet.	ed, some sand,					70				TONITE
7	SILTY SAND, fine grained sand, mottling, medium dense, low pla	black with lig sticity, wet.	ht brown-orange								BEN	TONITE
9	Bottom of hole at 7.9 m.			NOT	ES							

.11	CRIC T ATTA	TINI	Т		Client oal Li r	nited			Boreho	le No. : RG_BH_FR3A
ソ)	SNC+LAVA	LIN	Regional		ocation ndwate		oring			PAGE 1 OF 3
Drilling Boreho	Contractor Mud Bay Drilling Co. Ltd. Method Vibratory Sonic le Dia. (m) 0.15 otted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5556777.	. (m̀) ´	157 157	0 10 08 0.402 1.215 ting: 6532	233.95	50	Project Number: Borehole Logger Date Drilled: Log Typed By:	
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Lev ✓ Water Lev ◆ NAPL ◇ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: RG_MW_FR3A
De	Soil Des	cription		Strai	Sam	Sam	Blo	Å %1	0 ¹ 10 ² 10 ³ 10] ?1 □
0	SILTY SAND, fine to medium grarounded to subrounded, dark bro moist, contains organic material. GRAVEL, fine to coarse, rounded	wn, loose, me	edium plasticity,			FR3A-01		30		SAND
3-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1	coarse grained, trace silt, contain brown, loose.	ing cobbles (60-100 mm),							Y
5	Below 4.9 m - subrounded grave	I, fine to coars	se grained sand.			FR3A-02		50		BENTONITE
7-	Between 7.3 m and 8.5 m - less	silt, grey.								
9						FR3A-03				
				NOT Bolo	Γ ES ded sa	ample de	enot	es sa	mple analyzed.	

Mud Bay Drilling Co. Ltd. fibratory Sonic 0.15 0.16 0.05/0.05 dend ample Interval ibrasonic Soil Decline to coarse, round ned, trace silt, contained, trace silt, contained, continued) orange oxidation.	Water/NA ▼ Water Let ▼ Water Let ♠ NAPL ♠ NAPL Scription	Regional Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5556777. PL Levels vel 1 vel 2 ed, some sand,	Cround Ground ev. (m)	2020 1570 1571	Monito 10 08 402	33.950	•	Project Number: Borehole Logged Date Drilled: Log Typed By:	PAGE 2 OF 3 By: 631283 AH 2020 08 31 VL Solid PVC Slotted PVC
Mud Bay Drilling Co. Ltd. fibratory Sonic 0.15 . (m) 0.05/0.05 gend ample Interval ibrasonic Soil De: ine to coarse, round ned, trace silt, conta- se. (continued)	Water/NA ▼ Water Let ▼ Water Let ♠ NAPL ♠ NAPL Scription	Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5556777. PL Levels vel 1 vel 2	ev. (m) . (m) 203	2020 1570 1571 Easti	10 08 .402 .215 ng: 65323	33.950	•	Project Number: Borehole Logged Date Drilled: Log Typed By: Reading within indicated scale Reading outside	By: 631283 AH 2020 08 31 VL Solid PVC
fibratory Sonic 0.15 . (m) 0.05/0.05 lend ample Interval librasonic Soil Decine to coarse, round ned, trace sitt, contage. (continued)	Water/NA ▼ Water Lev □ Water Lev ◆ NAPL ○ NAPL SCription	Ground Surface Ele Top of Casing Elev Northing: 5556777 PL Levels vel 1 vel 2	7. (m) 203	1570 1571 Easti	.402 .215 ng: 65323		•	Borehole Logged Date Drilled: Log Typed By: Reading within indicated scale Reading outside	By: AH 2020 08 31 VL Solid PVC
Soil De: ine to coarse, round ned, trace silt, contage. (continued)	▼ Water Lev □ Water Lev ♠ NAPL □ NAPL □ NAPL SCription	vel 1 vel 2 ed, some sand,	Stratigraphy Plot	Sample Interval Sore Run	e Number	ıı	•	indicated scale Reading outside	⊢ ⊢
ine to coarse, round ned, trace silt, conta se. <i>(continued)</i>	led to subround		Stra	Sar	둳ㅣ	Blow Count	% Recovery	Soil Vapour (ppm)	Well Name 1: RG_MW_FR3A
ned, trace silt, conta se. <i>(continued)</i>				0,0	Sar	В	% 10 ¹	10 ² 10 ³ 10 ⁴	
					FR3A-04		300		BENTONITE
rse grained, trace g				$\langle \rangle$					
ine to coarse, subro n), well graded.	uriuea, containi	ing condies			R3A-06	8	30		
ine to coarse, subar ned, well graded.	ngular, some sa	ind, fine to		**************************************					RG_MW_FR3A
			e to coarse, subangular, some sand, fine to ed, well graded.	ed, well graded.	ie to coarse, subangular, some sand, fine to ed, well graded.	ed, well graded. NOTES	te to coarse, subangular, some sand, fine to ed, well graded.	ie to coarse, subangular, some sand, fine to ed, well graded.	ie to coarse, subangular, some sand, fine to ed, well graded.

•	22.20 2.42.4		To	(Client oal Lin				Borehol	e No. : RG_BH_FR3A
•))	SNC+LAVA	LIN	Regional		cation ndwate		oring			PAGE 3 OF 3
Drilling Boreho	Contractor Mud Bay Drilling Co. Ltd. Method Vibratory Sonic ole Dia. (m) 0.15 otted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5556777.	. (m̀) ´	1570 157	0 10 08 0.402 1.215 ting: 6532	233.95	0	Project Number: Borehole Logged Date Drilled: Log Typed By:	631283 By: AH 2020 08 31 VL
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Lev ▽ Water Lev ◆ NAPL ◇ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: RG_MW_FR3A
	Soil Des	cription		Stra	Sar	Sar	ă	% 10	0 ¹ 10 ² 10 ³ 10 ⁴	
21-	GRAVEL, fine to coarse, subang coarse grained, well graded. (co. GRAVEL, fine to coarse, subang graded, dark brown, medium der Between 21.3 abd 22.2 m - less	ntinued) gular, some sil nse, medium p	t, trace clay, well olasticity, wet.			FR3A-07				SAND
22-	GRAVEL, fine to coarse, subang graded, dark brown, medium der	gular, some sil nse, medium p	t, trace clay, well plasticity, wet.							
24-	CLAYEY GRAVEL, fine gravel, s some sand, coarse grained, brown					FR3A-08		80		
25-	BOULDER, 330 mm, siltstone, but the coars subangular, some sand, coarse medium plasticity, damp.	e gravel, subr	ounded and brown, dense,							BENTONITE
26-	GRAVELLY CLAY, fine gravel, s some sand, fine grained, dark br					FR3A-09		-		
28-	At 27.4 m - light brown.									
29	At 28.3 m - dry.									
30-	Bottom of hole at 29.3 m.							.		
29				NOT Bolo	T ES led sa	imple de	enote	es sa	mple analyzed.	

"	SNC+LAVA	TINI	Т	eck C	Client oal Lin	nited			Boreh	ole No. : RG_BH_FR3B
"	SINCYLAVA	TTT.	Regional		cation ndwate	r Monit	oring			PAGE 1 OF 1
illing reho	Contractor Mud Bay Drilling Co. Ltd. Method Vibratory Sonic le Dia. (m) 0.15 otted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Electory Top of Casing Electory Northing: 5556778.2	. (m) ´	1570 157) 10 08).406 I.164 ing: 653	233.80)5	Project Numbe Borehole Logge Date Drilled: Log Typed By:	ed By: AH 2020 09 01
	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Le ✓ Water Le ◆ NAPL ◇ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: RG_MW_FR3B
í	Soil Desc	ription		Stra	Sar	Sar	BIG	% E	10 ¹ 10 ² 10 ³ 1	101
1-1	SILT, dark brown, loose, moist. SILTY SAND, coarse grained san	d, dark brow	n.		\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\			50		SAND
2-1	GRAVEL, fine to coarse, rounded coarse grained, well graded, light							50		BENTONITE
1— 1— 3—								80		RG_MW_FR3E
1111111111										
7-	Between 6.7 m and 7.0 m - some medium plasticity. Below 7.0 m - some sand, coarse		-		> >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>					BENTONITE
3-	At 7.6 m - oxidation. Bottom of hole at 7.9 m.									
)			Г	NOT	-E0					
				NOT	E 3					

•	CNIC . T ANIA	TTAT	Ted		lient oal Lin	nited			Boreho	le No. : RG_BH_FR4A
IJ	SNC · LAVA	LII	Regional G		cation Idwate	r Monito	oring			PAGE 1 OF 4
lling reho	Contractor Mud Bay Drilling Co. Ltd. Method Vibratory Sonic Dle Dia. (m) 0.15 Ottled Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Elev Top of Casing Elev. (Northing: 5556366.23	m) ´	1567 1568	0 10 08 7.791 3.550 ing: 6534	196.60)8	Project Number: Borehole Logged Date Drilled: Log Typed By:	
Deptin in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Lev □ Water Lev • NAPL □ NAPL	vel 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: RG_MW_FR4A
0-	SANDY SILT, fine grained sand, contains organic material.		oose, moist,	<u> </u>	w o	, w		% ₁₁	0 ¹ 10 ² 10 ³ 10	SAND
	SAND, fine to coarse grained, tra subrounded, well graded, dark bro			· . >						
2-	SAND and GRAVEL, fine to coar coarse gravel, rounded to subrou brown, loose, damp.	nded, well gra	aded, dark			FR4A-01				
3-	SAND, coarse grained, trace grave moist.	ei, fine, roun	ded, loose,							
	GRAVEL, fine to coarse, rounded fine grained, trace silt, well grade				> >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>					
	SAND, coarse grained, trace graves subrounded, light brown, loose, w		ded to			FR4A-02				
	SAND and GRAVEL, fine to coan coarse gravel, rounded to subrou brown, loose, wet. SANDY SILT, fine grained sand, medium plasticity, wet, oxidized coarse.	nded, well graden	aded, light edium dense,							
	At 8.4 m - less sand.					FR4A-03				
Ė				NOT Bold	ES led sa	mple de	enote	es sa	mple analyzed.	

						<u> </u>				
	CRIC T ATTA	TTNT	т	C eck Co	lient al Lin	nited			Borehol	e No. : RG_BH_FR4A
*))	SNC+LAVA	LIN	Regional		cation dwate	r Monito	ring			PAGE 2 OF 4
Drilling Boreho	Contractor Mud Bay Drilling Co. Ltd. Method Vibratory Sonic sle Dia. (m) 0.15 otted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5556366.	. (m) ´	1567 1568		96.60	8	Project Number: Borehole Logged Date Drilled: Log Typed By:	631283 By: AH 2020 09 01 VL
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Lev ✓ Water Lev ◆ NAPL ◇ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count		Page Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: RG_MW_FR4A
ă	Soil Des	cription		Stra	Sar	Sar	BIC	% 10	¹ 10 ² 10 ³ 10 ⁴	
10-	GRAVEL, fine to coarse, subrou coarse grained, trace silt, well gr (continued)					FR4A-04				
12-	SAND, fine grained, some silt, lig	ght brown, loo	se, wet.					80		
13-						FR4A-05				
15-	SAND and GRAVEL, fine to coa coarse gravel, well graded, grey,		and, fine to							BENTONITE
17-	SAND, coarse grained, some graubrounded, poorly graded, grey		nded to			FR4A-06		100		
18-	SANDY SILT, fine grained sand, dense, wet.	trace clay, da	ark grey, medium							
19-						FR4A-07				
-				NOT I Bolde	ES ed sa	mple de	enote	es sar	nple analyzed.	

					NA				1	
<i>.</i> 1)	SNC+LAVA	TINI	Te		Client oal Lin	nited			Borehol	e No. : RG_BH_FR4A
'/)	SINCYLAVA		Regional		cation ndwate	r Monite	oring		1	PAGE 3 OF 4
rilling oreho	Contractor Mud Bay Drilling Co. Ltd. Method Vibratory Sonic ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5556366.2	. (m) ´	1567 1568	0 10 08 7.791 3.550 ing: 6534	196.60	8	Project Number: Borehole Logged Date Drilled: Log Typed By:	631283 By: AH 2020 09 01 VL
Depth in Metres	Drilling Legend Sample Interval Vibrasonic Soil Des	▼ Water Lev ▼ Water Lev • NAPL ○ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count		Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm) 1 10² 10³ 10⁴ 10⁴	Solid PVC Slotted PVC Well Name 1: RG_MW_FR4A
222	SANDY SILT, fine grained sand, dense, wet. (continued) At 20.4 m - some orange mottling. GRAVEL, fine to coarse, subrout well graded, brown, loose, wet. At 21.9 m - some silt. At 22.6 m - less silt. At 23.2 m - some silt. SAND and GRAVEL, fine to coarse gravel, subrounded, well CLAYEY GRAVEL, fine to coarse silt, trace sand, fine grained, dart plasticity, damp. GRAVEL, coarse, subrounded, sepoorly graded, brown, loose, wet. GRAVEL, fine to coarse, subrout coarse grained, some silt, trace of loose, wet.	g. Inded to subar rse grained sa graded, brown e gravel, subr k brown-grey, some silt, cont	and, fine to n, loose, wet ounded, some dense, medium aining cobbles,			FR4A-08		80		RG_MW_FR4A SAND BENTONITE
29-	At 29.0 m - oxidation (orange mo	ottling).				FR4A-10		100		
0.			Г	8 /8/				100		<u> </u>
				NO1 Bold		mple de	enote	es sar	mple analyzed.	

	CRIC. T AND	TINI	Т	eck C	Client oal Lir	nited			Borehol	e No. : RG_BH_FR4A
7))	SNC·LAVA	LIIN	Regional		cation idwate	er Monito	ring			PAGE 4 OF 4
Drilling Boreh	g Contractor Mud Bay Drilling Co. Ltd. g Method Vibratory Sonic ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5556366.	r. (m̀) ´	156 156	0 10 08 7.791 3.550 ting: 6534	96.60	18	Project Number: Borehole Logged Date Drilled: Log Typed By:	631283 By: AH 2020 09 01 VL
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Lev □ Water Lev • NAPL ○ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	Recovery	indicated scale	Solid PVC Slotted PVC Well Name 1: RG_MW_FR4A
De	Soil Des	cription		Stra	San	Sam	Blo	℃ % 10 ¹	10 ² 10 ³ 10 ⁴	
31-31-32-	CLAYEY GRAVEL, fine to coars sand, coarse grained, well grade moist. (continued) Below 30.8 m - some silt, dense. Between 31.4 m and 31.7 m - let CLAYEY GRAVEL, fine to coars silt, well graded, dark brown, der	ed, brown, med, , damp. nse of coarse se gravel, subr	grained sand.			FR4A-11				BENTONITE
33-								100		
35	Bottom of hole at 34.1 m.									
36-										
38-										
40-				NOT Bolo	ES led sa	mple de	enote	es sam	nple analyzed.	

(1)	SNC+LAVA	TINT	т		Client oal Lin	nited				Borehol	e No. : RG_BH_FR4B	
I)	SINC*LAVA	LII	Regional		cation ndwate	r Monit	oring	I		1	PAGE 1 OF 1	
rilling oreho	g Contractor Mud Bay Drilling Co. Ltd. g Method Vibratory Sonic ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Elev Top of Casing Elev. (Northing: 5556368.73		ev. (m) 1568.62		8			Project Number: Borehole Logged Date Drilled: Log Typed By:	631283 By: AH 2020 09 08 VL	
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Lev ✓ Water Lev ◆ NAPL ◇ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	•	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: RG_MW_FR4B	
5	Soil Des	cription		Stra	San	San	BIG	% R	10 ¹	10 ² 10 ³ 10 ⁴		
0-	SANDY SILT, fine grained sand, material.	brown, loose,	dry, organic					40			SAND	
1-	SAND, fine to coarse grained, tra subrounded, well graded, dark br	ace gravel, fine rown, loose, d	e, rounded to amp.	♦ ♦							¥ // //	
2-	SAND and GRAVEL, fine to coar coarse gravel, rounded to subrou brown, loose, damp. SAND, coarse grained, trace gra	ınded, well gra	aded, dark									
	Modern Sand, coarse grained, trace gramoist. At 2.7 m - wet.	vei, fine, roun	ded, 100se,					30			BENTONITE	
3-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1	GRAVEL, fine to coarse, rounded fine grained, trace silt, well grade											
5-1-1-1-1-1-1	SAND, coarse grained, trace gra subrounded, light brown, loose, v	vel, fine, roun vet.	ded to					50			RG_MW_FR	
7-	SAND and GRAVEL, fine to coar coarse gravel, rounded to subrout brown, loose, wet. SILTY SAND, fine to medium gra- plasticity. At 6.8 m - wood.	ınded, well gra	aded, light								BENTONITE	
8-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1	Bottom of hole at 7.5 m.											
0-1				NOT	ES							

1	SNC · LAVA	TINI	Tec	k Coa	ent I I Lim	ited				В	oreho	ole No	o. : R	G_B	I_FR5A
IJ	SINCYLAVA		Regional G	Loca round		r Monito	ring					PAG	E 1	OF 6	
ing eho	Contractor Mud Bay Drilling Co. Ltd. Method Vibratory Sonic le Dia. (m) 0.15 otted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Elev. Top of Casing Elev. (I Northing: 5556260.73	m) ĺ	2020 10 08 1566.144 1566.937 Easting: 653572.546		.6	Project Number: Borehole Logger Date Drilled: Log Typed By:			AH	20 09 06	i		
	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Le ▽ Water Le ◆ NAPL ◇ NAPL	PL Levels vel 1 vel 2	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count		Re ind	ading vicated ading of icated	scale outside scale	We	Slotte	I PVC ed PVC e 1: RG_	MW_FR5A
	Soil Des	cription		Str	S Sa	Sar	ă	% 10	0 ¹ 1	0 ²	10 ³ 1	o <u>1</u>			
+	SANDY SILT, fine grained sand, plasticity, moist, organic materia		oose, medium			FR5A-01		80 .				¥.			— SAND
	GRAVEL, fine to coarse, rounde coarse grained, containing cobbi wet. At 4.3 m - trace silt.					FR5A-02		40							
	At 4.9 m - less silt.							80							
	SAND, coarse grained, containir subrounded, grey, loose, wet.					FR5A-03									
	grained, well graded, grey, loose CLAYEY GRAVEL, fine to coars subrounded, medium dense, we	e, wet. e gravel, roun													
	SILTY SAND, fine to medium gramedium dense, medium plasticit At 9.8 m - orange-light brown.		ark grey,					100							
			I E	NOTE Bolde	S d saı	mple de	note	es sa	mple	anal	yzed. [Diame	eter 7"	' to 9.1	m.

				<u> </u>	<u> </u>				
M CNICAT AND	TTAT	Τε		Client oal Lin	nited			Borehol	e No. : RG_BH_FR5A
)) SNC+LAVA	XLIIN	Regional (cation ndwate	r Monito	ring			PAGE 2 OF 6
rilling Contractor Mud Bay Drilling Co. Ltd rilling Method Vibratory Sonic orehole Dia. (m) 0.15 pe/Slotted Pipe Dia. (m) 0.05/0.05	1.	Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5556260.7	(m)	1566 1566	0 10 08 6.144 6.937 ing: 6535	72.54	6	Project Number: Borehole Logged Date Drilled: Log Typed By:	631283 By: AH 2020 09 06 VL
Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Lev □ Water Lev • NAPL □ NAPL	vel 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count		Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: RG_MW_FR5A
Soil Des	scription		Strat	Sam Core	Sam	Blo	ਔ % 10	0 ¹ 10 ² 10 ³ 10 ⁴	
SANDY SILT, fine grained sand dense, medium plasticity, wet. At 12.0 m - some medium to concourse grained sand, some silt, At 13.7 m - less silt. At 14.3 m - more silt.	d, some clay, gr	and. brounded, fine to			FR5A-04		60		BENTONITE
At 16.5 m - less silt. SAND and GRAVEL, medium to coarse gravel, subrounded, well and the subrounded subrounded.	to coarse graine Il graded, grey,	ed sand, fine to loose, wet.			FR5A-06 FR5A-07		60		

	ONTO T ATTA		Te		Client oal Lin	nited			Borehol	e No. : RG_BH_FR5A
	SNC · LAVA	LIN	Regional (cation ndwate	r Monito	oring			PAGE 3 OF 6
inç eh	g Contractor Mud Bay Drilling Co. Ltd. g Method Vibratory Sonic ole Dia. (m) 0.15 slotted Pipe Dia. (m) 0.05/0.05	_	Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5556260.7	(m)	1566 1566		572.54	16	Project Number: Borehole Logged Date Drilled: Log Typed By:	631283 By: AH 2020 09 06 VL
	Drilling Legend Sample Interval Vibrasonic Soil Des	▼ Water Let ▼ Water Let • NAPL • NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: RG_MW_FR5A
	SAND and GRAVEL, medium to coarse gravel, subrounded, well (continued) CLAYEY SILT, trace sand, fine medium dense, medium plastici (laminations). SAND and GRAVEL, fine to coarse gravel, subrounded, som loose, wet. At 22.6 m - containing cobbles. CLAYEY GRAVEL, fine to coarse gravel, subrounded, som loose, wet.	coarse graine graded, grey, to medium gra ty, wet, black r rse grained sa e silt, well gra	ined, brown, mottling and, fine to ded, brown, ounded.			FR5A-08		80	1 102 103 106	BENTONITE
9-				NOT Bold	ES led sa		enote	es sal	mple analyzed. D	iameter 7" to 9.1 m.

	- CDIC T ATIA		Te		Client oal Lin	nited			Borehol	e No. : RG_BH_FR5A	
))	SNC+LAVA	LIN	Regional (cation ndwate	r Monito	oring			PAGE 4 OF 6	
rilling oreho	g Contractor Mud Bay Drilling Co. Ltd. I Method Vibratory Sonic ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5556260.7	(m)	1566 1566	0 10 08 6.144 6.937 ting: 6535	572.54	6	Project Number: Borehole Logged Date Drilled: Log Typed By:	631283 By: AH 2020 09 06 VL	
Deptn In Metres	Drilling Legend Sample Interval Vibrasonic Soil Doc	▼ Water Let ▼ Water Let • NAPL • NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	6 Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: RG_MW_FR5A	
0-	Soil Des	•	n dense. wet.			0)		° 10	1 10 ² 10 ³ 10 ⁴		
3-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1	GRAVELLY CLAY, fine to coarse sand, fine to coarse grained, well medium plasticity, moist. At 34.4 m - more coarse grained CLAYEY SAND, coarse grained coarse, subrounded, medium de	sand, trace g	ravel, fine to			FR5A-12 FR5A-13		100		BENTONITE	
37	GRAVELLY CLAY, fine to coarse sand, coarse grained, trace silt, or moist.										
0.				NOT Bold	TES led sa	mple de	enote	es sar	nple analyzed. D	iameter 7" to 9.1 m.	

l) Ca	TC.T ATTA	TINT	Тє		Client oal Lim	ited			Borehol	e No. :	RG_BH_FR5A
// 5r	NC • LAVA		Regional (cation ndwate	r Monite	oring			PAGE 5	OF 6
lling Contracto lling Method rehole Dia. (m e/Slotted Pipe	or Mud Bay Drilling Co. Ltd. Vibratory Sonic) 0.15 e Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5556260.7	(m) ´	1566 1566		572.54	6	Project Number: Borehole Logged Date Drilled: Log Typed By:	631283 By: AH 2020 09 06 VL	
Drilling	Legend Sample Interval Vibrasonic	Water/NA ▼ Water Lev □ Water Lev • NAPL □ NAPL	vel 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count		Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Sk	lid PVC otted PVC me 1: RG_MW_FR5A
	Soil Des	cription		ξ	တီပိ	- S	ш	% 10	$0^1 10^2 10^3 10^7$		
<u> </u>	ace clay, grey, dense, lown of trace gravel, fine.	w plasticity, mo	oist.					100			
SILTY S moist.	SAND, fine grained sand	, trace clay, lov	w plasticity, grey,		**************************************						
SANDY dense,	' SILT, fine grained sand low plasticity, moist.	, trace clay, gr	ey, medium								BENTONITE
At 46.3	m - some clay, medium	plasticity.						100			
	Y SAND, fine to coarse ç n dense, medium plastici		some silt, grey,								RG_MW_FR5A
				NO1 Bolo	T ES led sa	mple d	enote	es sa	mple analyzed. D	iameter ī	7" to 9.1 m.

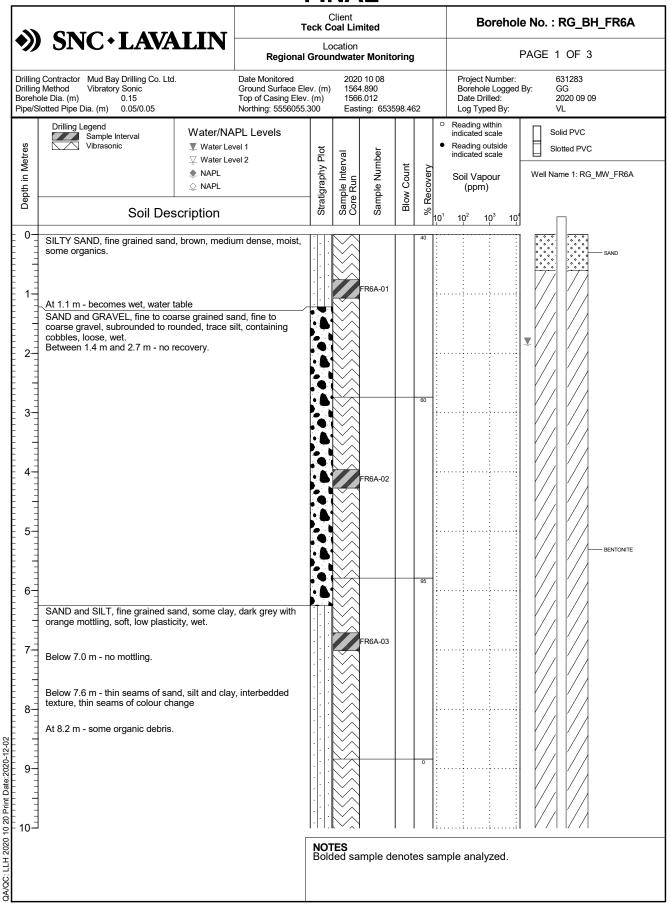
	CRIC T ATTA	TINI	т	eck C	Client oal Lin	nited				Borehol	le No. : RG_BH_FR5A
?))	SNC+LAVA		Regional		cation ndwate	r Monito	oring				PAGE 6 OF 6
Drilling Boreho	Contractor Mud Bay Drilling Co. Ltd. Method Vibratory Sonic Die Dia. (m) 0.15 Olotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5556260.	. (m) ´	1566 1566	0 10 08 6.144 6.937 ting: 6535	572.54	16	Bo Da	oject Number: rehole Logged te Drilled: g Typed By:	631283 By: AH 2020 09 06 VL
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Lev ⊽ Water Lev • NAPL ○ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Read indic Soil	ling within ated scale ling outside ated scale Vapour opm)	Solid PVC Slotted PVC Well Name 1: RG_MW_FR5A
De	Soil Des	cription		Straf	Sam	Sam	Blo	% R	0 ¹ 10 ²	10³ 10°	
53-	GRAVELLY CLAY, fine to coarse silt, grey, dense, medium plastic	sand, some g						100			SAND BENTONITE
57	BEDROCK, weathered, light gre fractures. Bottom of hole at 58.2 m.	y, fine grained	I, clay packed					100			
				NOT Bold	T ES led sa	mple de	enote	es sa	ample a	nalyzed. D	viameter 7" to 9.1 m.

. N	CRIC. T AR7A	TINT	Те		client Dal Lim	nited			Borehol	e No. : RG_BH_FR5B	
V)	SNC · LAVA	LLIN	Regional		cation idwate	r Monite	oring			PAGE 1 OF 3	
rillin Ioreh	g Contractor Mud Bay Drilling Co. Ltd. g Method Vibratory Sonic nole Dia. (m) 0.15 Slotted Pipe Dia. (m) 0.05/0.05	Date Monitored Ground Surface E Top of Casing Ele Northing: 555625		e Elev. (m) 1566.291 Elev. (m) 1567.027 257.368 Easting: 653573.816			3	Project Number: 631283 Borehole Logged By: AH Date Drilled: 2020 09 06 Log Typed By: VL			
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Le ▽ Water Le ◆ NAPL ◇ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	Recovery	indicated scale	Solid PVC Slotted PVC Well Name 1: RG_MW_FR5B	
<u> </u>	Soil Des	cription		Stra	Sar	Sar	ă	% 10¹	10 ² 10 ³ 10 ⁴		
0- - 1- 2- 3- 4- 5-	GRAVEL, fine to coarse, rounded to subround fine to coarse grained, well graded, brown, located to subround fine to coarse grained, well graded, brown, located to subround fine to coarse grained, well graded, brown, located to subround fine to coarse grained, well graded, brown, located to subround fine to coarse grained, well graded, brown, located to subround fine to coarse grained, well graded, brown, located to subround fine to coarse grained, well graded, brown, located to subround fine to coarse grained, well graded, brown, located to subround fine to coarse grained, well graded, brown, located to subround fine to coarse grained, well graded, brown, located to subround fine to coarse grained, well graded, brown, located to subround fine to coarse grained, well graded, brown, located to subround fine to coarse grained, well graded, brown, located to subround fine to coarse grained, well graded, brown, located to subround fine to coarse grained, well graded, brown, located to subround fine to coarse grained, well graded, brown, located to subround fine to coarse grained, well graded, brown, located to subround fine to coarse grained, well graded, brown, located to subround fine to coarse grained, well graded, brown, located to subround fine to coarse grained, well graded to subround fine to coarse grained fi		ded, trace sand,					40		SAND	
6-	SAND, coarse grained, trace grained, trace grained, grained, grained, grey, loos	nded, well gra						80			
8-	At 7.9 m - trace fine to medium ç	grained sand.									
9-	SILTY SAND, fine to medium gr. brown with orange-black mottling plasticity, wet.	ained sand, tr g, medium del	ace clay, light nse, low	NOT	ES			90			

Orilling Method Vibratory Sonic Soric Sor	OF 3 81283 H 020 09 06
Regional Groundwater Monitoring PAGE 2 Prilling Contractor Mud Bay Drilling Co. Ltd. Date Monitored Ground Surface Elev. (m) 1566.291 Top of Casing Elev. (m) 1567.027 Date Drilling Legend Sample Interval Vibrasonic Project Number: 63 Borehole Logged By: Al-Date Drilled: 20 Log Typed By: VL Water/NAPL Levels Water Level 1 Water Level 1 Water Level 2 NAPL NAPL Soil Description Regional Groundwater Monitoring PAGE 2 Project Number: 63 Borehole Logged By: Al-Date Drilled: Log Typed By: VL Borehole Logged By: Al-Date Drilled: Log Typed By: VL Reading within indicated scale	81283 H J020 09 06 L d PVC
Drilling Method Vibratory Sonic Orehole Dia. (m) 0.15 Top of Casing Elev. (m) 1566.291 Top of Casing Elev. (m) 1567.027 Easting: 653573.816 Description Vibrasonic Vibra	H 120 09 06 L d PVC tted PVC
Sample Interval Vibrasonic Water/NAPL Levels Water Level 1 Water Level 2 NAPL NAPL Soil Description Soil Vapour (ppm) Soil Description At 10.1 m - fine grained sand, dark grey, no mottling.	tted PVC
Soil Description O SILTY SAND, fine to medium grained sand, trace clay, light brown with orange-black mottling, medium dense, low plasticity, wet. (continued) At 10.1 m - fine grained sand, dark grey, no mottling.	
SILTY SAND, fine to medium grained sand, trace ciay, light brown with orange-black mottling, medium dense, low plasticity, wet. (continued) At 10.1 m - fine grained sand, dark grey, no mottling.	
SILT, trace sand, fine grained, dark grey, medium dense, wet.	
Below 12.2 m - brown with light brown mottling.	
SILTY SAND, fine grained sand, light brown, medium dense,	
SAND and GRAVEL, fine to coarse grained sand, fine to coarse gravel, subrounded, trace silt, well graded, loose, wet.	
At 14.3 m - more silt.	
	BENTONITE
At 15.8 m - less silt.	
Below 18.3 m - medium to coarse grained sand, no silt.	
NOTES	
NOTES	

	CRIC T ATTA	TTNT		Client oal Lir	nited			Borehole No. : RG_BH_FR5B				
*))	SNC+LAVA	LIN	Regional		ocation ndwate	er Monito	oring			PAGE 3 OF 3		
Drilling Boreh	g Contractor Mud Bay Drilling Co. Ltd. g Method Vibratory Sonic ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5556257.	. (m)	156 156	0 10 08 6.291 7.027 ting: 6535	573.81	16	Project Number: Borehole Logged Date Drilled: Log Typed By:	631283 By: AH 2020 09 06 VL		
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Lev ▼ Water Lev		ηy Plot	terval	umber	ınt		Reading within indicated scale Reading outside indicated scale	Solid PVC Slotted PVC		
epth in		NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Soil Vapour (ppm)	Well Name 1: RG_MW_FR5B		
	Soil Des	cription		ļ tš	ပ္သီလ	Sa	՝	% 10	0 ¹ 10 ² 10 ³ 10			
20-	SAND and GRAVEL, fine to coarcoarse gravel, subrounded, trac (continued) CLAYEY SILT, trace sand, fine medium dense, medium plastici (laminations).	e silt, well grac to medium gra ty, wet, black r	led, loose, wet. ined, brown, nottling					50		BENTONITE		
22-	SAND and GRAVEL, fine to coacoarse gravel, subrounded, som brown, loose, wet.											
23-										SAND		
= =	Bottom of hole at 24.3 m.							;				
25-												
26												
27												
28-1												
20 ZO Print Date: 200 L												
H 2020				NO	ΓES							
WA/WC: LLH ZUZU												

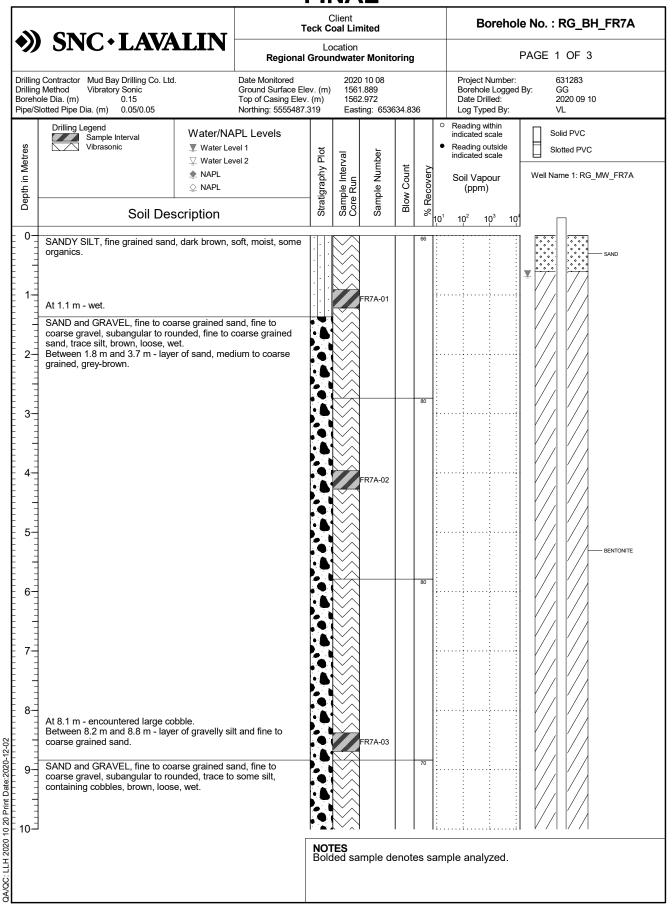
(l.	SNC+LAVA	TINI	Те	eck C	Client oal Lin	nited			Borehole No. : RG_BH_FR5C					
	SINC LAVA		Regional		cation ndwate	r Monite	oring		PAGE 1 OF 1					
lling reho	Contractor Mud Bay Drilling Co. Ltd. Method Vibratory Sonic le Dia. (m) 0.18 otted Pipe Dia. (m) 0.10/0.10		Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5556259.0	. (m) ´	1566 1567	0 10 08 6.118 7.184 ing: 653	570.54	1	Project Number: Borehole Logged Date Drilled: Log Typed By:	631283 I By: AH 2020 09 08 VL	08			
	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Lev ✓ Water Lev ◆ NAPL ◇ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: RG_MW	_FR5C			
	Soil Desc	cription		Stra	San	San	Blc	% 10	0 ¹ 10 ² 10 ³ 10					
1	SANDY SILT, fine grained sand, damp, contains organic material.	brown, loose	low plasticity,		\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\			70		SA	ND			
<u> </u>	GRAVEL, fine to coarse, rounder fine to coarse grained, well grade				}}}}									
								50			NTONITE			
	SAND, coarse grained, trace gra	vel, fine to co	arse, loose, wet.					60		RG_M	IW_FR50			
	GRAVEL, fine to coarse, subrour grained, well graded, grey, wet.	nded, some s	and, coarse		}}}}					SA	ND			
	Bottom of hole at 9.0 m.													
				NOT	ES									



"	SNC · LAVA	TIN	To	eck C	Client oal Lin	nited			Borehole No. : RG_BH_FR6A				
(1)	SINC*LAVA		Regional		cation ndwate	r Monito	ring			PAGE 2 OF 3			
illing oreh	Contractor Mud Bay Drilling Co. Ltd. Method Vibratory Sonic ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5556055.	. (m)	1564 1566	10 08 .890 i.012 ing: 6535	98.46		Project Number: Borehole Logged Date Drilled: Log Typed By:	631283 By: GG 2020 09 09 VL			
Deptin in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Lev □ Water Lev • NAPL □ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count		Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: RG_MW_FR6A			
בֿ	Soil Des	cription		San San Bic		% 10	0 ¹ 10 ² 10 ³ 10 ⁴						
0	SAND and SILT, fine grained sa orange mottling, soft, low plastic below 12.5 m - interbedded sec	ity, wet. <i>(conti</i>	nued)			FR6A-04		95		BENTONITE			
6	SAND and GRAVEL, fine to coacoarse gravel, subangular to rou cobbles, light brown, loose, wet.	ınded, trace si	and, fine to It, containing			FR6A-05		65		RG_MW_FR6A			
9				NOT Bold	ES led sa	mple de	enote	es sar	nple analyzed.				

	CRIC. I ANIA	TINI	Te	eck C	Client oal Lin	nited			Borehole No. : RG_BH_FR6A				
*))	SNC+LAVA	LIN	Regional		cation dwate	er Monito	ring			PAGE 3 OF 3			
Drilling Boreh	Contractor Mud Bay Drilling Co. Ltd. Method Vibratory Sonic De Dia. (m) 0.15 Olotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5556055.3	(m)	1564 1566	0 10 08 4.890 6.012 ting: 6535	98.46	62	Project Number: Borehole Logged Date Drilled: Log Typed By:	631283 By: GG 2020 09 09 VL			
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Lev ▽ Water Lev • NAPL ○ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	covery	indicated scale	Solid PVC Slotted PVC Well Name 1: RG_MW_FR6A			
Dept	Soil Des	cription		Stratig	Sampl Core F	Samp	Blow	% Recovery	10 ² 10 ³ 10 ⁴				
21 22 23	SAND and GRAVEL, fine to coa coarse gravel, subangular to rou cobbles, light brown, loose, wet. Below 21.3 m - grey, gradational decreasing amounts of gravel are SAND, fine to medium grained, swet.	nded, trace sil (continued) change to un	derlying unit,			FR6A-07		80		SAND BENTONITE			
24-	Bottom of hole at 24.1 m.								<u>jj</u>				
25-													
26													
27-													
28-													
29-													
30-			ſ	NOT	ES								
C. CELL 2				Bold	led sa	mple de	enote	es sam	iple analyzed.				

<i>))</i>	SNC · LAVA	IIN	T ₁	eck C	Client oal Lin	nited			Borehole No. : RG_BH_FR6				
"	SINCILAVA		Regional		cation ndwate	r Monite	oring			PAGE 1 OF 1			
illing reho	Contractor Mud Bay Drilling Co. Ltd. Method Vibratory Sonic le Dia. (m) 0.15 otted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5556055.	. (m) ´	1564 1566	0 10 08 4.886 6.047 ing: 6538	596.40)4	Project Number: Borehole Logged Date Drilled: Log Typed By:	631283 d By: GG 2020 09 09 VL			
Deput in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Lev ✓ Water Lev ◆ NAPL ◇ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: RG_MW_FR6B			
5	Soil Des	cription		Stra	San	San	Blo	N %	0 ¹ 10 ² 10 ³ 10				
1	SILTY SAND, fine grained sand, damp-moist, some organics (roo	brown, mediuts, debris).	ım dense,					60		SAND			
<u> </u>	At 1.2 m - wet, water table. SAND and GRAVEL, fine to coar coarse gravel, rounded to subroucobbles, brown, loose, wet.	rse grained sa ınded, trace s	and, fine to ilt, containing							T			
								50		BENTONITE			
1-										RG_MW_FR6E			
5										SAND			
								90					
7	Bottom of hole at 7.3 m.									BENTONITE			
111111111													
1111111													
)			ſ	NOT	ES								
					-								



					N.H	<u> </u>							
<i>(1)</i>	CNICAT ANIA	TTNT	Те		Client oal Lin	nited			Borehole No. : RG_BH_FR7A				
"	SNC+LAVA		Regional		cation ndwate	r Monito	oring		PAGE 2 OF 3				
ling eho	Contractor Mud Bay Drilling Co. Ltd. Method Vibratory Sonic ole Dia. (m) 0.15 olotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5555487.3	. (m)	1561 1562	0 10 08 1.889 2.972 ing: 6536	34.836		Project Number: Borehole Logged Date Drilled: Log Typed By:	631283 By: GG 2020 09 10 VL			
	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Lev □ Water Lev • NAPL □ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	indicated scale	Solid PVC Slotted PVC Well Name 1: RG_MW_FR7A			
	Soil Des	cription		Stra	Sarr	San	OIB	Ƴ 8101	10² 10³ 10⁴				
1	SAND and GRAVEL, fine to coar coarse gravel, subangular to rour containing cobbles, brown, loose	nded, trace to	some silt,			FR7A-04							
milniñi	Between 11.3 m and 11.6 m - ler	ns of sand and	d gravel, silty.				8	0					
3						FR7A-05				BENTONITE			
						FR7A-06	9	0					
	SAND, medium grained, grey, lo	ose, wet.					9	0		RG_MW_FR7A			
LuntunTun						FR7A-07				SAND			
9-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1				NOT Bold	TES led sa	mple de	enotes	sam	nple analyzed.	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			

	CRIC. I ANA	TINI	To	eck C	Client oal Lin	nited			Borehole No. : RG_BH_FR7A				
7))	SNC · LAVA	LLIN	Regional		cation idwate	er Monito	ring			PAGE 3 OF 3			
Drilling Boreh	g Contractor Mud Bay Drilling Co. Ltd. g Method Vibratory Sonic ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5555487.	. (m) ´	156° 156°	0 10 08 1.889 2.972 ting: 6536	34.83	s6	Project Number: Borehole Logged Date Drilled: Log Typed By:	631283 By: GG 2020 09 10 VL			
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Lev ✓ Water Lev ◆ NAPL ◇ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	Recovery	indicated scale	Solid PVC Slotted PVC Well Name 1: RG_MW_FR7A			
Dep	Soil Des	cription		Strati	Samp	Samp	Blov	% 10¹	10² 10³ 10⁴				
20-	SAND, medium grained, grey, lo	ose, wet. (cor	ntinued)					100		SAND			
22-	SAND, fine grained, some grave subangular, trace silt, brown-gre Between 22.6 m and 23.5 m - si	y, very dense,				FR7A-08				BENTONITE			
23-	Below 23.5 m - some silt.												
25	Bottom of hole at 24.1 m.												
26-													
27-													
28-													
29													
30													
GAVGC. LEH ZOZO				NOT Bold	ES led sa	mple de	enote	es sam	nple analyzed.				

•		TTNT	Teck C	Client cal Lir	nited			Borehol	e No. : RG_BH_FR7B			
))	SNC+LAVA	LIN	L Regional Grou	ocation ndwate		oring		PAGE 1 OF 1				
illing oreho	Contractor Mud Bay Drilling Co. Ltd. Method Vibratory Sonic sle Dia. (m) 0.15 otted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Elev. (m Top of Casing Elev. (m) Northing: 5555484.973	156 156	0 10 08 1.841 2.856 ting: 6536	34.015	i	Project Number: Borehole Logged Date Drilled: Log Typed By:	631283 By: GG 2020 09 10 VL			
Depui III Meiles	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Le ▽ Water Le ◆ NAPL ◇ NAPL	1 ⊆	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: RG_MW_FR7B			
á	Soil Des	cription	Stra	San	San	В	% 10 ¹	10 ² 10 ³ 10 ⁴	П			
0-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1	SILTY SAND, fine grained sand interbedded textures (colouring). At 1.4 m - wet, water table. SAND and GRAVEL, fine to coacoarse gravel, subrounded to rocobbles, brown, loose, wet.	some organic	and, fine to				70		SAND			
3	Between 3.7 m and 4.0 m - lens some gravel, fine to coarse, sub	e of sand, me rounded to rou	dium grained, unded.				70		BENTONITE			
2-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1							75		RG_MW_FR7B			
6 -									BENTONITE			
' = = = =	Bottom of hole at 7.3 m.		<u> </u>]							
8-1-1-1												
0			NO	TES								

Project C		Teck Coal	Drilling Coordinates:652228.9 Drilling Method: Diamond		<u> </u>		ution: 1599.05 UTM NA	
Project N	Name:	FRO Swift Ponds Seepage	Location: FRO Swi	ft Pond		Dip (from Hor	iz.): 90°	Reviewed by: D.Kenn
Project L	Locatio	n: Fording River Operations	Date Started: Dec 10, 20 D	ate Completed	: Dec 11, 20	Drilled Depth:	12.4 m	Revision No.: 1, 1/21/
[E	Ê –	LITHOLOGY	/ PROFILE	CC	ORE RECOV	/ERY		
Ê.	ELEVATION (r	SOIL/ROCK D	ESCRIPTION	Total Core Recovery (%)	Solid Core Recovery (%)	Rock Quality Designation (%)	WELL INSTALLATION DETAILS	COMMENTS
.2 159	98	Grey to brown clasts of boulde sub-round clasts. Clasts consi siltstone/shale.	rs and cobbles. Sub-angular to st of mudstone, siltstone and limey	9.	20 40 60 80	20 40 60 80	Y	HQ (96mm diameter) diamond core through overburden. 16/12/20 - After well install and development. Water level @ 2.58 n
7 159 3 159 3 159	91	Interbedded dark and light grey	y bands of lithified silt and clay, es, bedding dips between 60 and 75	100 100 100 95	60 74 90 89 58	25 32 80 80 0 64		HW Surface casing advanced to 5. mbgs.
12 158	87							End of Borehole @ 12.4 mbgs. 51mm diameter PVC monitoring we installed to 11 meters below ground surface (mbgs). 3.0 meter long, 10 slot PVC screen 7.9 to 10.9 mbgs. 10/20 Filter sand from 7 to 11.2 mb Time release bentonite tablets from to 12.4 mbgs and from 0.0 to 7.0 m Monument style protective casing. Pressure and temperature datalogo installed on hourly reading schedule

RECORD OF FR MW20-01S Project Number: VE52842 Drilling Coordinates:652228.43 N, 5558245.26 E Surface Elevation: 1599.03 m Project Client: Drilling Method: **Teck Coal** Diamond Logged by: **B.Chernoff** Datum: UTM NAD 83 Project Name: FRO Swift Ponds Seepage Location: FRO Swift Pond _ Dip (from Horiz.): Reviewed by: D.Kennedy 90° Date Started: <u>Dec 12, 20</u> Date Completed: <u>Dec 12, 20</u> Drilled Depth: Project Location: Fording River Operations Revision No.: 1, 1/21/21 5.7 m **CORE RECOVERY** LITHOLOGY PROFILE Ξ Ξ WELL INSTALLATION Rock Quality Designation (%) Total Core Solid Core **COMMENTS** SOIL/ROCK DESCRIPTION Plot DEPTH DETAILS Recovery (%) Recovery (%) Graphic 20 40 60 80 20 40 60 80 20 40 60 80 Grey to brown clasts of boulders and cobbles. Sub-angular to Csub-round clasts. Clasts consist of Mudstone, Siltstone and Limey Siltstone/Shale. 1598) [HQ (96mm diameter) diamond core through overburden. 1597 16/12/20 - After well install and development. Water level @ 2.23 mbgs 10 1596. 1595. 1594 HW Surface casing advanced to 5.7 70 100 Interbedded dark and light grey bands of lithified silt and clay 51mm diameter PVC monitoring well installed to 5.6 meters below ground surface (mbgs). surface (mogs). 1.5 meter long, 10 slot PVC screen from 4 to 5.5 mbgs. 10/20 Filter sand from 3.5 to 5.65 mbgs. Time release bentonite tablets from 5.65 to 5.7 mbgs and from 0.0 to 3.5 mbgs. Monument style protective casing. Pressure and temperature datalogger installed on hourly reading schedule. Wood Environment and Infrastructure 4445 Lougheed Highway Burnaby, British Columbia Canada V5C 0E4 Tel +1(604) 294-3811 Fax +1(604) 294-4664 Borehole details as presented do not constitute a thorough understanding of all potential conditions present and requires interpretative assistance from a qualified Engineer. In addition, borehole information should be read in conjunction with the report for which it was commissioned and the accompanying 'General Report Notes'. For explanatin of terms and symbols used in soil and rock logging, refer to Appendix - A. www.woodplc.com

Ρ

Date: 1/21/2021 6:36:37

File: FRO SWIFT POND 2.GPJ

RECORD OF FR MW20-02D Project Number: VE52842 Drilling Coordinates:652176.55 N, 5558372.53 E Surface Elevation: 1598.93 m Project Client: Drilling Method: **Teck Coal** Diamond Logged by: Datum: UTM NAD 83 B.Chernoff Project Name: FRO Swift Ponds Seepage Location: FRO Swift Pond Dip (from Horiz.): <u>90°</u> Reviewed by: D.Kennedy Date Started: <u>Dec 13, 20</u> Date Completed: <u>Dec 14, 20</u> Project Location: Fording River Operations Drilled Depth: Revision No.: 1, 1/21/21 15.7 m **CORE RECOVERY** LITHOLOGY PROFILE Ξ Ξ ELEVATION WELL INSTALLATION Total Core Solid Core Rock Quality Designation (%) **COMMENTS** SOIL/ROCK DESCRIPTION Plot DEPTH DETAILS Recovery (%) Recovery (%) Graphic 20 40 60 80 20 40 60 80 20 40 60 80 Grey to brown cobbles and gravel. Trace clay and silt, some sand. CSub-round clasts composed of limestone/limey shale, mudstone, quartzite. 1598 HQ (96mm diameter) diamond core through overburden. 0 1597 1596. 7 1595 16/12/20 - After well install and development. Water level @ 4.08 mbgs 1594 HW Surface casing advanced to 6.7 1593 6 Interbedded dark and light grey bands of lithified silt and clay, 80 0 0 occasional calcite filled fractures, bedding dips between 60 and 75 1592 degress from horizontal 100 32 30 1591 100 98 1590. 100 64 43 10 1589 100 83 90 1588 1587. .12 90 1586. 13 98 95 1585. 100 80 1584 15 100 76 End of Borehole @ 15.7 mbgs. 51mm diameter PVC monitoring well installed to 15.6 meters below ground installed to 13.5 meters below ground surface (mbgs). 3.0 meter long, 10 slot PVC screen from 12.6 to 15.6 mbgs. 10/20 Filter sand from 9.5 to 15.7 mbgs. Time release bentonite tablets from 0.0 to 9.5 mbgs. Monument style protective casing. Pressure and temperature datalogger installed on hourly reading schedule. Wood Environment and Infrastructure 4445 Lougheed Highway Burnaby, British Columbia Canada V5C 0E4 Tel +1(604) 294-3811 Fax +1(604) 294-4664 Borehole details as presented do not constitute a thorough understanding of all potential conditions present and requires interpretative assistance from a qualified Engineer. In addition, borehole information should be read in conjunction with the report for which it was commissioned and the accompanying 'General Report Notes'. For explanatin of terms and symbols used in soil and rock logging, fefer to Appendix - A. www.woodplc.com

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GALORE CREEK - 2011 SI PROGRAM

RECORD OF FR MW20-02S Project Number: VE52842 Drilling Coordinates:652175.93 N, 5558374.39 E Surface Elevation: 1598.94 m Project Client: Drilling Method: **Teck Coal** Diamond Logged by: **B.Chernoff** Datum: UTM NAD 83 Project Name: FRO Swift Ponds Seepage Location: FRO Swift Pond _ Dip (from Horiz.): <u>90°</u> Reviewed by: D.Kennedy Date Started: <u>Dec 14, 20</u> Date Completed: <u>Dec 15, 20</u> Drilled Depth: Project Location: Fording River Operations Revision No.: 1, 1/21/21 6.3 m **CORE RECOVERY** LITHOLOGY PROFILE Ξ Ξ ELEVATION WELL INSTALLATION Rock Quality Designation (%) Total Core Solid Core **COMMENTS** SOIL/ROCK DESCRIPTION Plot DEPTH Recovery (%) DETAILS Recovery (%) Graphic 20 40 60 80 20 40 60 80 20 40 60 80 Grey to brown cobbles and gravel. Trace silt and clay, some sand. CSub-round clasts composed of limestone/limey shale, mudstone, quartzite. 1598.) [HQ (96mm diameter) diamond core through overburden. 1597 16/12/20 - After well install and 1596. development. Water level @ 2.67 mbgs 12 1595. 1594 CHW Surface casing advanced to 6.3 1593. 6 End of Borehole @ 6.3 mbgs. 51mm diameter PVC monitoring well installed to 6.3 meters below ground Installed to 6.3 meters below ground surface (mbgs). 1.5 meter long, 10 slot PVC screen from 4.6 to 6.1 mbgs. 10/20 Filter sand from 3.8 to 6.3 mbgs. Time release bentonite tablets from 0.0 to 3.8 mbgs. Monument style protective casing. Pressure and temperature datalogger installed on hourly reading schedule. Wood Environment and Infrastructure 4445 Lougheed Highway Burnaby, British Columbia Canada V5C 0E4 Tel +1(604) 294-3811 Fax +1(604) 294-4664 Borehole details as presented do not constitute a thorough understanding of all potential conditions present and requires interpretative assistance from a qualified Engineer. In addition, borehole information should be read in conjunction with the report for which it was commissioned and the accompanying 'General Report Notes'. For explanatin of terms and symbols used in soil and rock logging, refer to Appendix - A. www.woodplc.com

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File: FRO SWIFT POND 2.GPJ

GALORE CREEK - 2011 SI PROGRAM

RECORD OF FR MW20-03D Project Number: VE52842 Drilling Coordinates:652186.64 N, 5558167.42 E Surface Elevation: 1600.71 m Project Client: Drilling Method: **Teck Coal** Diamond Logged by: Datum: UTM NAD 83 B.Chernoff Project Name: FRO Swift Ponds Seepage Location: FRO Swift Pond Dip (from Horiz.): <u>90°</u> Reviewed by: D.Kennedy Date Started: <u>Dec 15, 20</u> Date Completed: <u>Dec 16, 20</u> Project Location: Fording River Operations Drilled Depth: Revision No.: 1, 1/21/21 14 m **CORE RECOVERY** LITHOLOGY PROFILE Ξ Ξ ELEVATION WELL INSTALLATION Total Core Solid Core Rock Quality Designation (%) **COMMENTS** SOIL/ROCK DESCRIPTION Plot DEPTH DETAILS Recovery (%) Recovery (%) Graphic 20 40 60 80 20 40 60 80 20 40 60 80 Brown to grey gravel and cobbles. Trace silt and some sand. CSub-round clasts composed of sandstone and siltstone. 1600_ HQ (96mm diameter) diamond core through overburden. 0 1599 9 1598 C17/12/20 - After well install and development. Water Level @ 2.03 1597 HW Surface casing advanced to 4.5 CInterbedded dark and light grey bands of lithified silt and clay, occasional calcite filled fractures, bedding dips between 60 and 75 1596 100 72 33 degress from horizontal 100 **5**0 n 1595 6 96 90 1594 78 1593. .8 43 87.5 50 1592 9 94 1591 10 98 95 0 1590 100 80 0 1589 .12 100 76 0 40 2 Ö 1588. __13 100 17 1587. 51 100 18 End of Borehole @ 14.0 mbgs. 51mm diameter PVC monitoring well installed to 14.0 meters below ground surface (mbgs). surface (mogs). 3.0 meter long, 10 slot PVC screen from 10 to 13 mbgs. 10/20 Filter sand from 9.0 to 13.4 mbgs. Time release bentonite tablets from 0.0 to 9.0 mbgs and from 13.4 to 14.0 mbgs. Monument style protective casing. Pressure and temperature datalogger installed on hourly reading schedule. Wood Environment and Infrastructure 4445 Lougheed Highway Burnaby, British Columbia Canada V5C 0E4 Tel +1(604) 294-3811 Fax +1(604) 294-4664 Borehole details as presented do not constitute a thorough understanding of all potential conditions present and requires interpretative assistance from a qualified Engineer. In addition, borehole information should be read in conjunction with the report for which it was commissioned and the accompanying 'General Report Notes'. For explanatin of terms and symbols used in soil and rock logging, refer to Appendix - A. www.woodplc.com Page: 1 of 1

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File: FRO SWIFT POND 2.GPJ

GALORE CREEK - 2011 SI PROGRAM

RECORD OF FR MW20-03S Project Number: VE52842 Drilling Coordinates:652187.38 N, 5558165.82 E Surface Elevation: 1600.70 m Project Client: Drilling Method: **Teck Coal** Diamond Logged by: **B.Chernoff** Datum: UTM NAD 83 Project Name: FRO Swift Ponds Seepage Location: FRO Swift Pond __ Dip (from Horiz.): Reviewed by: D.Kennedy 90° Date Started: <u>Dec 17, 20</u> Date Completed: <u>Dec 17, 20</u> Drilled Depth: Project Location: Fording River Operations 4.2 m Revision No.: 1, 1/21/21 **CORE RECOVERY** LITHOLOGY PROFILE Ξ Ξ ELEVATION WELL INSTALLATION Rock Quality Designation (%) Total Core Solid Core **COMMENTS** SOIL/ROCK DESCRIPTION Plot DEPTH Recovery (%) DETAILS Recovery (%) Graphic 20 40 60 80 20 40 60 80 20 40 60 80 Brown to grey gravel and cobbles. Trace silt and clay, some sand 0 Sub-round clasts comprised of sandstion and siltstone. 1600_ HQ (96mm diameter) diamond core through overburden. 0 1599 .2 11 16/12/20 - After well install and development. Water level @ 2.21 mbgs 1598 0 .3 1597 HW Surface casing advanced to 4.2 0 End of Borehole @ 4.2mbgs. 51mm diameter PVC monitoring well installed to 4.2 meters below ground surface (mbgs). 1.5 meter long, 10 slot PVC screen from 2.5 to 4.0 mbgs. 10/20 Filter sand from 2.0 to 4.2 mbgs. Time release bentonite tablets from 0.0 to 2.0 mbgs. Monument style protective casing. Pressure and temperature datalogger installed on hourly reading schedule. Wood Environment and Infrastructure 4445 Lougheed Highway Burnaby, British Columbia Canada V5C 0E4 Tel +1(604) 294-3811 Fax +1(604) 294-4664 www.woodplc.com

Format: GALORE CREEK - 2011 SI PROGRAM

Date: 1/21/2021 6:36:38 PM

File: FRO SWIFT POND 2.GPJ

Greenhills Operations Borehole Logs – Wells for Evaluation

411	CNICAT ANA	Te		lient al Lim	ited			Borehole No. : GH_BH_FR1A				
7/)	SNC·LAVA	LLIIN	Teck Coal		cation onal G	roundw	ater			PAGE 1 OF 6		
Drilling Boreho	Contractor JR Drilling Method Dual Rotary ble Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05	G T	Date Monitored Ground Surface Electory op of Casing Elev. Horthing: 5545628.6	(m) '	1495 1496		161.21	9	Project Number: Borehole Logger Date Drilled: Log Typed By:			
Depth in Metres	Drilling Legend Sample Interval ▼▼▼▼ Air Rotary	Water/NAPI ▼ Water Level ▽ Water Level ◆ NAPL ◇ NAPL	1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count		Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: GH_MW_FR1A		
De	Soil Des	cription		Stra	San	San	Blo	& % 10	0 ¹ 10 ² 10 ³ 10			
2-	SAND and GRAVEL (FILL), fine to coarse gravel, subrounded to graded, brown, loose, dry. Between 1.5 m and 4.6 m - dam Between 2.4 m and 3.0 m - conf	subangular, trac	ed sand, fine he silt, well									
4-	SILT and CLAY, poorly graded, plasticity, damp.	dark grey, soft, n	nedium									
6-	SAND and GRAVEL, fine to coacoarse gravel, subrounded, tracloose, damp.									BENTONITE		
8 9 9 10 11 10 11 11 11 11 11 11 11 11 11 11	SILTY GRAVEL, fine gravel, sul coarse grained, trace clay, well sulface standard CLAY, trace gravel, f graded, dark grey, soft, medium wood fragments.	pose, damp.							X			
10 2021				NOTI Differ and s	rentia	tion be grain s	twee size a	n silt analys	and clay fraction sis samples.	s inferred based on plasticity		

	CRIC. T AND	TINI	To	eck C	Client oal Lim	ited				Borehole No. : GH_BH_FR1A				
7))	SNC·LAVA	LLIN	Teck Coa		cation ional G	roundv	vater				PAGE 2	OF 6		
Drilling Boreh	g Contractor JR Drilling g Method Dual Rotary ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5545628.	(m)	1495 1496		461.21	9		Project Number: Borehole Logged Date Drilled: Log Typed By:	By: A	884431 AH 2021 09 01 /L		
Depth in Metres	Drilling Legend Sample Interval ▼▼▼ Air Rotary	Water/NA ▼ Water Lev □ Water Lev • NAPL □ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	• F	Reading within ndicated scale Reading outside ndicated scale Soil Vapour (ppm)	Slo	olid PVC otted PVC me 1: GH_N	/IW_FR1A	
Dep	Soil Des	scription		Stratig Sampl Core F Sampl Blow						10 ² 10 ³ 10 ⁴				
10—110—110—110—110—110—110—110—110—110—	SILT sand CLAY, trace gravel, tgraded, dark grey, soft, medium wood fragments. (continued) Between 11.0 m and 15.2 m - v From 15.2 m - no wood fragments from 15.2 m - v SILT, some clay, trace sand, fin soft, medium plasticity, moist, laclay and brown sand.	ery soft, moist	rained, grey,										— BENTONITE	
2A/QC: TC 202111			NOT Diffe and	erentia	tion be grain s	twee	n sil	t and	d clay fractions samples.	sinferred	d based o	on plasticity		

	O CNICAT ANIATINI				Client Coal Lin	nited			Boreho	Borehole No. : GH_BH_FR1A				
7))	SNC • LAVALIN Tec				ocation gional G	roundv	vater			PAGE 3 OF 6				
Drilling Boreh	rilling Method Dual Rotary orehole Dia. (m) 0.15		Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5545628.	. (m) ´	2021 10 07 1495.263 1496.099 Easting: 653461.219		19	Project Number: Borehole Logge Date Drilled: Log Typed By:						
Metres				Stratigraphy Plot	erval	ımber	Ħ	У	 Reading within indicated scale Reading outside indicated scale 	Solid PVC Slotted PVC				
Depth in Metres		MAPL	_		Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Soil Vapour (ppm)	Well Name 1: GH_MW_FR1A				
	Soil Des	Soil Description			Sar	Sar	ā	%	10 ¹ 10 ² 10 ³ 10	,				
21-	SILT, some clay, trace sand, fin soft, medium plasticity, moist, la clay and brown sand. (continued SANDY SILT, fine to coarse gragravel, fine, subrounded, grey, s	ne clay, trace												
23														
25-	SILT and CLAY, trace sand, me gravel, fine, subangular, well graplasticity, moist.	edium to coarse aded, grey, sof	e grained, trace t, medium							BENTONITE				
0A/QC: TC 2021 1110 Print Date:2023-03-24	At 29.2 m - no sand.			NO [*] Diffi	erentia	tion be	twee	en sil	t and clay fraction sis samples.	s inferred based on plasticity				

	SNC+LAVA	TINI	т	eck C	Client oal Lim	nited			Borehole No. : GH_BH_FR1A				
	SINCYLAVA	Location Teck Coal Regional Groundwater							PAGE 4 OF 6				
Drilling Boreho	Contractor JR Drilling Method Dual Rotary ble Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5545628.	. (m) ´	1495 1496		461.2°	19	Project Borehol Date Dr Log Typ		By: A	84431 H 021 09 01 L	
Depth in Metres	Drilling Legend Sample Interval ▼▼▼▼ Air Rotary	Water/NA ▼ Water Lev ▽ Water Lev • NAPL ○ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Reading vindicated s Reading cindicated s Soil Vap (ppm)	scale outside scale -	Slo	id PVC tted PVC ne 1: GH_M	W_FR1A
ď	Soil Des		Stra	Sar	Sar	ĕ	Ж.	10 ¹ 10 ² 1	10 ³ 10 ⁴				
33-33-33-33-33-33-33-33-33-33-33-33-33-	SILT and CLAY, trace sand, me gravel, fine, subangular, well graplasticity, moist. (continued) Between 32.0 m and 39.6 m - fine street in the	aded, grey, sof	t, medium										BENTONITE
OA/QC: TC 202111 10 Print Date: 2023-03-24 0	At 39.6 m - some sand, fine to n	nedium graine	d .	NC	FS.								
NOTES Differentiation between silt and clay fractions inferred base and select grain size analysis samples.									based o	n plasticity			

	CNIC . T ANIA	T ₁	Client Teck Coal Limited							Borehole No. : GH_BH_FR1A				
7))	SNC • LAVALIN Teck Co					Froundy	vater			PAGE 5 OF 6				
Drilling Boreh	g Contractor JR Drilling g Method Dual Rotary ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5545628.	(m) ´	1498 1498	1 10 07 5.263 6.099 ing: 653	461.2	19		Project Number: Borehole Logged Date Drilled: Log Typed By:	By: AF	21 09 01		
Depth in Metres	Drilling Legend Sample Interval ▼▼▼ Air Rotary	Water/NA ▼ Water Lev □ Water Lev • NAPL □ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	•	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Slott	d PVC ted PVC	FR1A	
De	Soil Des		Strati Samp Core Samp Blov				1 ₀ 1	10 ² 10 ³ 10 ⁴						
40 – 40 – 41 – 41 – 41 – 42 – 42 – 43 – 44 – 44 – 45 – 45 – 45 – 45 – 45	SILT and CLAY, trace sand, me gravel, fine, subangular, well graphasticity, moist. (continued) Between 44.5 m and 45.7 m - n medium grained, occuring in lendary and the state of the subangular and the state of th	edium to coarse aded, grey, sof	sand, fine to										NONITE	
3A/QC: TC 2021				NOT Diffe and	erentia	ition be grain s	twee	en sil anal	lt ar ysis	nd clay fractions s samples.	s inferred	based on լ	olasticity	

	CNICAT ANIA	TINI	Client Teck Coal Limited							Borehole No. : GH_BH_FR1A			
7)	SNC+LAVA	Location Teck Coal Regional Groundwater						PAGE 6 OF 6					
Drillin Boreh	Drilling Method Dual Rotary Borehole Dia. (m) 0.15		Date Monitored 2021 10 07 Ground Surface Elev. (m) 1495.263 Top of Casing Elev. (m) 1496.099 Northing: 5545628.645 Easting: 653461.219				Project Number: 684431 Borehole Logged By: AH Date Drilled: 2021 09 01 Log Typed By: VL						
Metres	Drilling Legend Sample Interval ▼ ▼ ▼ Air Rotary	▼ Water Le		ıy Plot	erval	ımber	nt	ry	•	indicated scale Reading outside indicated scale	Solid PVC Slotted PVC		
Depth in Metres		NAPL NAPL NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery		Soil Vapour (ppm)	Well Name 1: GH_MW_FR1A		
	Soil Des	scription		1 20	ďζ	й		%	1 ₀ 1	10 ² 10 ³ 10	4		
50 - 51 - 51 - 52 - 53 - 54 - 55 - 56 - 56 - 57 - 58 - 57 - 58 - 57 - 58 - 58 - 58	Between 52.7 m and 59.7 m - c boulders.	ubangular, son	e silt, brown,								SAND BENTONITE		
WQC: 10 2021 1		NOTES Differentiation between silt and clay fractions inferred based on plasticity and select grain size analysis samples.											

	CNIC . T ANIA	TINI	Te		lient oal Lim	ited			E	Borehol	e No. :	GH_BH	I_FR1B
 7))	SNC · LAVA		Teck Coa		cation onal G	roundv	vater			I	PAGE 1	OF 3	
Drilling Boreho	Contractor JR Drilling Method Dual Rotary ble Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05	,	Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5545627.4	(m) ´	1495 1496		460.33	31	Boreho Date D Log Ty	/ped By:	By:	684431 JM 2021 09 08 /L	
Depth in Metres	Drilling Legend Sample Interval ▼▼▼▼ Air Rotary	Water/NA ▼ Water Lev □ Water Lev • NAPL ○ NAPL	rel 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	 Reading indicated Reading indicated Soil Va (ppn 	d scale outside d scale apour	Sle	olid PVC otted PVC me 1: GH_I	MW_FR1B
De	Soil Des	cription		Strai	Sam	Sam	Blo	Й % 1	0 ¹ 10 ²	10 ³ 10 ⁴	ſ		
2-	SAND and GRAVEL, fine to coacoarse gravel, subrounded to su graded, brown, loose, dry. At 1.2 m - damp.	urse grained sa ibangular, trace	nd, fine to e silt, well								▼		
5-	SILT and CLAY, trace sand, fine poorly graded, dark grey, soft, m organics (wood fragments). SAND and GRAVEL, fine to coa coarse gravel, subrounded to su graded, brown, loose, damp. Between 5.2 m and 5.5 m - organical subrounded to su graded, brown, loose, damp.	redium plasticit rse grained sa bangular, trace	nd, fine to										— BENTONITE
OA/QC: TC 2021 11 10 Print Date: 203-03-24	Between 7.6 m and 8.2 m - som silty. SILT and CLAY, trace sand, fine subrounded, poorly graded, dark moist. Between 8.2 m and 10.7 m - org	grained, trace grey, soft, me	e gravel, fine, edium plasticity,	NOT	ES	tion b -	huo-		ond elec-	fraction		Naccontact Contact Con	on planticity
DA/QC: TC 2				Diffe and	erentia select	แon be grain s	twee	en silt analy	and clay sis sampl	rractions les.	sinterred	a based (on plasticity

	CNICAT ANIA	TINI	Т		Client oal Lin	nited				Borehol	e No. : GH_BH_FR1B
🔻	SNC+LAVA	LLIN	Teck Coa		ocation ional (Froundw	ater			J	PAGE 2 OF 3
Drillin Boreh	g Contractor JR Drilling g Method Dual Rotary lole Dia. (m) 0.15 Slotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5545627.	. (m) ´	1499 1496	1 10 06 5.257 6.116 ting: 6534	160.33	i1		Project Number: Borehole Logged Date Drilled: Log Typed By:	684431 By: JM 2021 09 08 VL
Depth in Metres	Drilling Legend Sample Interval ▼▼▼▼ Air Rotary	Water/NA ▼ Water Lev ▽ Water Lev ◆ NAPL ◇ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	Recovery	• !	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: GH_MW_FR1B
Dep	Soil Des	scription		Strati	Sam	Samı	Blov	~	1 ₀ 1	10² 10³ 10⁴	
10- 11- 11- 11- 11- 11- 11- 11- 11- 11-		k grey, soft, me	edium plasticity,	NOT and	erentia	ation bei	twee	n sil	t anıysis	d clay fractions samples.	BENTONITE BENTONITE S inferred based on plasticity

	CNIC AT ANIA	TINI	Т	eck C	Client oal Lin	nited			Bore	hole	No. : GH_BH_FR1B
7))	SNC · LAVA		Teck Coa		ocation ional G	roundw	/ater			PA	AGE 3 OF 3
Drilling Boreho	Contractor JR Drilling Method Dual Rotary ble Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5545627.	. (m) ´	1495 1496	1 10 06 5.257 6.116 ing: 6534	160.33	1	Project Num Borehole Lo Date Drilled Log Typed E	gged By	684431 /: JM 2021 09 08 VL
Depth in Metres	Drilling Legend Sample Interval ▼▼▼▼ Air Rotary	Water/NA ▼ Water Lev □ Water Lev • NAPL □ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	 Reading withir indicated scale Reading outside indicated scale Soil Vapour (ppm) 	le	Solid PVC Slotted PVC Well Name 1: GH_MW_FR1B
De	Soil Des	cription		Stra	Sam	San	Blc	%	0 ¹ 10 ² 10 ³	10 ⁴	
21-22-23-24-25-	SILT and CLAY, trace sand, fine subrounded, poorly graded, dark moist. (continued) Between 21.6 m and 25.3 m - so grained.	c grey, soft, me	edium plasticity,								GH_MW_FR1B SAND BENTONITE
26-	Bottom of hole at 25.9 m.			иш	∤ * ▼ * ▼ * !				<u> </u>		
27-1 11 10 Print Date: 70 23-03-24			Ī	NOT	ΓES						
WAYAC: IC ZU				Diffe	erentia select	ition be grain s	twee size a	n sili analy	and clay frac sis samples.	tions i	nferred based on plasticity

	CNIC . T ANIA	TINI	Te		Client oal Lir	nited			Boreho	le No. : GH_BH_FR2A
 7))	SNC·LAVA	LLIN	Teck Coa		cation ional (vater			PAGE 1 OF 3
Drilling Boreh	Contractor Mud Bay Drilling Co. Ltd Method Vibratory Sonic ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5545366.0	(m) ´	150 150	1 10 07 4.631 5.466 ting: 6543	322.39	95	Project Number: Borehole Logged Date Drilled: Log Typed By:	
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Lev □ Water Lev • NAPL □ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: GH_MW_FR2A
Del	Soil Des	cription		Strat	Sam	Sam	Blo	% %	0 ¹ 10 ² 10 ³ 10	
2-	SAND and GRAVEL, fine to cocoarse gravel, subangular, somorganics (roots and grass). GRAVELLY SILT, fine to coarse sand, fine grained, brown, loose At 0.9 m - 100 mm thick red silt	e silt, brown, lo e gravel, suban e, damp.	oose, damp,							
7-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1	CLAYEY SAND, fine to medium fine to coarse, subangular, soft, SILTY GRAVEL, fine to coarse sand, fine to medium grained, b	medium plasti gravel, subang rown, medium	city, moist.							BENTONITE
OA/QC: TC 2021 11 10 Print Date; 2023-03-24				NOT Bold Diffe	ded sa erentia	imple dation be	enot twee	es sa en sil	imple analyzed (g and clay fraction rsis samples.	grain size distribution). s inferred based on plasticity

	CNIC. T ANIA	TINI	To		Client oal Lin	nited			Boreho	le No. : GH_BH_FR2A
 	SNC · LAVA		Teck Coa		cation ional (Froundy	vater			PAGE 2 OF 3
Drilling Boreh	g Contractor Mud Bay Drilling Co. Ltd g Method Vibratory Sonic ole Dia. (m) 0.15 Slotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5545366.	. (m) ´	1504 1508	1 10 07 1.631 5.466 ting: 6543	322.39	95	Project Number: Borehole Logged Date Drilled: Log Typed By:	
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Lev ▽ Water Lev ◆ NAPL ◇ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: GH_MW_FR2A
Dec	Soil Des	scription		Strati	Samp	Samp	Blov	% Re	10 ¹ 10 ² 10 ³ 10	1
10-	SILTY GRAVEL, fine to coarse sand, fine to medium grained, b (continued)	gravel, subang rown, medium	ular, some dense, damp.							
12-	CLAYEY SAND, fine to medium fine, trace silt, grey, firm, medium SAND and GRAVEL, fine to coa coarse gravel, subrounded, trac	m plasticity, da	mp.							
13-14-15-15-15-15-15-15-15-15-15-15-15-15-15-	Between 12.5 m and 15.2 m - c boulders. Between 16.2 m and 16.8 m - s At 17.7 m - 50 mm thick sand, f Between 18.3 m and 20.1 m - s	ontaining cobb ontaining cobb ome silt.	les and			FR2A-03				BENTONITE
0A/QC: TC 2021 11 10 Print Date: 2023-03-24				NO1 Bold Diffe	ded sa erentia	mple d ition be	enot twee	es sa en sil anal	ample analyzed (c t and clay fraction sis samples.	grain size distribution).

	CNIC. T ANIA	TINI	Te		Client oal Lin	nited				Borehol	e No. : GH_BH_FR2A
7/)	SNC·LAVA		Teck Coa		cation ional G	roundw	ater				PAGE 3 OF 3
Drilling Boreho	J Contractor Mud Bay Drilling Co. Ltd. J Method Vibratory Sonic ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5545366.0	(m) ´	1504 1505	10 07 4.631 5.466 ing: 6543	322.39	95		Project Number: Borehole Logged Date Drilled: Log Typed By:	684431 By: AH 2021 09 27 VL
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Lev ▽ Water Lev • NAPL ○ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	ir • F ir	Reading within ndicated scale Reading outside ndicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: GH_MW_FR2A
Del	Soil Des	cription		Strat	Sam Core	Sam	Blo	% R	1 ₀ 1	10 ² 10 ³ 10 ⁴	
20-	SAND and GRAVEL, fine to coa coarse gravel, subrounded, trace (continued) Between 20.1 m and 20.4 m - 30 fine grained, some silt, moderate Between 20.7 m and 21.0 m - 30 fine grained, some silt, moderate	e silt, grey, loo 00 mm layer of e plasticity. 00 mm layer of	se, wet. f clayey sand,			FR2A-05					BENTONITE
22-	Between 23.5 m and 23.8 m - fir	ne to medium (grained sand.			FR2A-06					GH_MW_FR2A
24-	GRAVELLY SILT, fine to coarse sand, fine grained, trace clay, da										BENTONITE
26-	BEDROCK, siltstone, grey, com medium hard, calcite mineralizat										
0A/QC: TC 2021 11 10 Print Date: 2023-03-24	Bottom of hole at 27.1 m.			N. V.V.	, , , 1			'			
3A/QC: TC 2021 1				Diffe	led sa erentia	tion be	twee	en sil	t and	e analyzed (gi d clay fractions samples.	rain size distribution). s inferred based on plasticity

•))	SNC+LAVA	LIN		eck C	Client oal Lin				Boreho	le No. : GH_BH_FR2B PAGE 1 OF 2
Drilling Boreh	g Contractor Mud Bay Drilling Co. Ltd g Method Vibratory Sonic ole Dia. (m) 0.15 Slotted Pipe Dia. (m) 0.05/0.05	L.	Date Monitored Ground Surface El Top of Casing Elev Northing: 5545365	ev. (m)	202 ² 150 ² 1505	1 10 06 1.686 5.483 ing: 654			Project Number: Borehole Logged Date Drilled: Log Typed By:	684431
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Lev ⊽ Water Lev • NAPL ◇ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: GH_MW_FR2B
Δ	Soil Des	scription		Stra	Sar	Sar	ă	્રા	10 ¹ 10 ² 10 ³ 10	
1-	SILT and GRAVEL, fine to coar subrounded, some sand, fine to damp. GRAVELLY SILT, fine to coarse subrounded, trace sand, fine to grey, loose, damp.	coarse graine	d, red, loose,					80		
2	At 2.7 m - 100 mm thick sandy of Between 3.0 m and 4.3 m - som	-			\$\$\$\$\$\$\$\$\$\$\$\$			80		
4	CLAYEY SAND, fine to medium fine to coarse, subangular, soft,									
5— 6— 7—	SILTY GRAVEL, fine to coarse sand, fine to coarse grained, bro	gravel, subang own, medium o	ular, some lense, damp.							BENTONITE
9				NOT Diffe and	erentia	ition be	etwee	en sil	t and clay fraction sis samples.	s inferred based on plasticity

	CNIC AT ANIA	TINI		Teck C	Client oal Lin	nited			Borehol	le No. : GH_BH_FR2B
7))	SNC · LAVA	LIIN	Teck Co		cation ional G	iroundw	vater			PAGE 2 OF 2
Drilling Boreho	Contractor Mud Bay Drilling Co. Ltd. Method Vibratory Sonic ole Dia. (m) 0.15 oltted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface I Top of Casing Ele Northing: 554536	ev. (m) ´	1504 1505	10 06 1.686 5.483 ing: 6543	323.27	7	Project Number: Borehole Logged Date Drilled: Log Typed By:	684431 By: AH 2021 09 27 VL
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Lev □ Water Lev • NAPL ○ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	indicated scale	Solid PVC Slotted PVC Well Name 1: GH_MW_FR2B
De	Soil Des	cription		Stra	Sarr	San	Blo	۲ % 10	¹ 10 ² 10 ³ 10 ⁴	
10-	SILTY GRAVEL, fine to coarse gand, fine to coarse grained, bro (continued)	gravel, subang own, medium c	ular, some lense, damp.							
11-	CLAYEY SAND, fine to medium fine to coarse, subangular, trace moderate plasticity, moist.	grained sand, silt, grey, med	, some gravel, dium dense,							BENTONITE
12-	SAND and GRAVEL, fine to coacoarse gravel, subrounded, trace	rse grained sa e silt, grey, loo	and, fine to se, wet.							
13										GH_MW_FR2B
14-										
15					$\stackrel{\checkmark}{\searrow}$:		BENTONITE
	Bottom of hole at 15.2 m.			_						
16-										
17-										
18-										
24										
50-5202 - 19-										
rint Date										
20_										
0A/QC: TC 2021 11 10 Print Date:2023-03-24 00 00 00 00 00 00 00 00 00 00 00 00 00				NOT Diffe and	erentia	tion be grain s	twee size a	n silt analys	and clay fractions is samples.	s inferred based on plasticity

	SNC+LAVA	TINI	Т		Client oal Lin	nited			Boreho	le No. : GH_BH_FR3A
	SINCYLAVA		Teck Coa		cation ional C	Froundy	vater			PAGE 1 OF 5
Drilling Boreho	Contractor JR Drilling Method Dual Rotary ble Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Electory of Casing Electory Northing: 5545568.3	(m) ´	1487 1488	1 11 21 7.555 3.372 ing: 6530	085.61	14	Project Number: Borehole Logged Date Drilled: Log Typed By:	684431 d By: JM 2021 09 14 VL
Depth in Metres	Drilling Legend Sample Interval ▼▼▼▼ Air Rotary	Water/NA ▼ Water Lev □ Water Lev ◆ NAPL ○ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: GH_MW_FR3A
De	Soil Des	cription		Strat	Sam	Sam	Blo	% R	10 ¹ 10 ² 10 ³ 10	
0-040C: IC 2021 11 10 Print Date: 2023-03-24	SANDY CLAY, fine to coarse gragravel, fine to coarse, subrounded plasticity, damp. SAND and GRAVEL, fine to coarcoarse gravel, subrounded to sure clay, brown, loose, dry. SILT and CLAY, soft. From 4.6 m to 16.8 m - limited researched.	rse grained sa bangular, som	n, soft, low							BENTONITE
JA/QC: 10 2021				NOT Diffe and	r ES erentia select	ition be grain s	twee	en sil anal	t and clay fraction sis samples.	s inferred based on plasticity

	CNIC AT ATTA	TINI	Te	ck C	Client oal Lin	nited			Boreho	le No. : GH_BH_FR3A
7))	SNC+LAVA	LLIN	Teck Coa		cation ional C	Froundw	ater			PAGE 2 OF 5
Drilling Boreho	Contractor JR Drilling Method Dual Rotary le Dia. (m) 0.15 otted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5545568.3	(m)	1487 1488	1 11 21 7.555 3.372 ing: 6530	085.61		Project Number: Borehole Logged Date Drilled: Log Typed By:	684431 By: JM 2021 09 14 VL
Depth in Metres	Drilling Legend Sample Interval ▼▼▼▼ Air Rotary	Water/NA ▼ Water Le ▽ Water Le ◆ NAPL ◇ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count		Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: GH_MW_FR3A
٥	Soil Des	scription		Stra	Sar	Sar	ă	% 10	0 ¹ 10 ² 10 ³ 10	
10	SILT and CLAY, trace sand, fine dark brown, soft, high plasticity,	e grained, trace	e gravel, fine,	NOT	ES erentia	ution be	twee	n silt	and clay fraction	s inferred based on plasticity
DA/QC: TC				and	select	grain	size a	analys	sis samples.	s inferred based on plasticity

	CNIC . T ANIA	TINI	Т	eck C	Client oal Lim	nited			Boreho	le No. : GH_BH_FR3A
 7/)	SNC · LAVA	Teck Coa		cation ional G	roundv	vater			PAGE 3 OF 5	
Drilling Boreho	Contractor JR Drilling Method Dual Rotary ble Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5545568.	. (m) ´	1487 1488		085.61	14	Project Number: Borehole Logged Date Drilled: Log Typed By:	684431 I By: JM 2021 09 14 VL
Depth in Metres	Drilling Legend Sample Interval ▼ ▼ ▼ Air Rotary	Water/NA ▼ Water Lev ▽ Water Lev ◆ NAPL ◇ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: GH_MW_FR3A
Dep	Soil Des	scription		Strati	Samp	Samp	Blow	% Re	0 ¹ 10 ² 10 ³ 10	1
22-	SILT and CLAY, trace sand, fine dark brown, soft, high plasticity, At 20.4 m - some gravel, coarse At 21.3 m - wet.	moist. (continu	e gravel, fine, ued)							GH_MW_FR3A
25 - 25 - 25 - 25 - 25 - 25 - 25 - 25 -	SAND and GRAVEL, fine to coaccarse gravel, subangular to sul loose, wet. Between 25.8 m and 28.3 m - s moist, possible weathered muds moist.	some clay, dark stone. d, some sand, ft, moist.	e silt, grey, c grey, compact, fine grained,					-		BENTONITE
3A/QC: TC 2021				NOT Diffe and	erentia	tion be grain s	twee	en sil analy	t and clay fraction sis samples.	s inferred based on plasticity

Date Number: Date Manifered Date Regional Coroundwater Date Manifered Date Regional Coroundwater Date Manifered Date Relative Date Manifered Date Relative Date Manifered Date Relative Date (Number: Date Date Date Date Date Date Date Date Date Date Date Date Date Date Date Date Date Date Date Date Date Date Date Date Date Date Date Date Date Date Date Date Date Date Date Date Date Date Date Date Date Date Date Date Date Date Date Date Date Date Date Date Date Date Date Date Date Date Date Date		CNIC . T ANIA	TINI	T	eck C	Client oal Lin	nited			Boreho	le No. : GH_BH_FR3A
Dorling Method Dual Rotary Ground Surface Elev (m) 1487-755 1487-755 Dorling Long (m) 1487-755 Dorling Long (m	 	SINC*LAVA	LLIN	Teck Coa			roundw	vater			PAGE 4 OF 5
Water Level 2 Water	Drilling Boreh	Method Dual Rotary ole Dia. (m) 0.15		Ground Surface Electron Top of Casing Electron	. (m̀) ´	1487 1488	7.555 3.372	085.61	4	Borehole Logged Date Drilled: Log Typed By:	d By: JM 2021 09 14
Soil Description BEDROCK, siltstone, weathered, heavily fractured, fine grained, hard, moist. (continued) BEDROCK, siltstone, weathered, heavily fractured, fine grained, hard, moist. (continued) At 33.2 m - dry. Between 34.4 m and 35.1 m - some clay on siltstone cuttings. BEDROCK, siltstone, dark grey, hard.	apth in Metres	Sample Interval	▼ Water Lev ▼ Water Lev	vel 1	tigraphy Plot	nple Interval e Run	nple Number	w Count	Recovery	 Reading outside indicated scale Soil Vapour 	Slotted PVC
BEDROCK, siltstone, dark grey, hard. BEDROCK, siltstone, dark grey, hard.	ă	Soil Des	cription		Stra	San	San	В	% R	10 ¹ 10 ² 10 ³ 10	,
Between 34.4 m and 35.1 m - some clay on siltstone cuttings. BEDROCK, siltstone, dark grey, hard.	31–	grained, hard, moist. (continued)	d, heavily fracti	ured, fine	****						
BEDROCK, siltstone, dark grey, hard.		Between 34.4 m and 35.1 m - so	Itstone cuttings.	* .							
NOTES Differentiation between silt and clay fractions inferred based on plastic and select grain size analysis samples.	37-		NOT	TES erentia	ition be	twee	en sil	t and clay fraction			

	CNIC. T ANIA	TINI	Tec	Client ck Coal Li	mited			Boreho	le No. : GH_BH_FR3A
7))	SNC+LAVA		Teck Coal I	Location Regional		ater			PAGE 5 OF 5
Drilling Boreh	g Contractor JR Drilling g Method Dual Rotary ole Dia. (m) 0.15 Slotted Pipe Dia. (m) 0.05/0.05	Gro Top	te Monitored bund Surface Elev. o of Casing Elev. (r thing: 5545568.36	(m) 148 m) 148	21 11 21 37.555 38.372 sting: 6530	85.614	1	Project Number: Borehole Logged Date Drilled: Log Typed By:	684431 By: JM 2021 09 14 VL
Depth in Metres	Drilling Legend Sample Interval TTY Air Rotary Soil Des	Water/NAPL ▼ Water Level 1 □ Water Level 2 • NAPL □ NAPL		Stratigraphy Plot Sample Interval	Sample Number	Blow Count	% Recovery	indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: GH_MW_FR3A
40-	BEDROCK, siltstone, dark grey, Between 40.1 m and 40.5 m - da trace coal.	hard. (continued)	L		V V V V V V V V V V V V V V V V V V V		\$\\ 10^{\\}	102 103 10	BENTONITE
43 44 45 45 46 47 48 48 48 49 49 50 50 50 50 50 50 50 50 50 50 50 50 50			[NOTES	ation be	tweer	n silt í	and clay fraction	s inferred based on plasticity
			i a	and selec	ct grain s	size a	nalys	ind clay fractions	s interieu baseu on plasticity

SNC·LAVA		Client Teck Coal Limited Location		Borehole No. : GH_BH_FR3B
Drilling Contractor JR Drilling Drilling Method Dual Rotary Borehole Dia. (m) 0.15 Pipe/Slotted Pipe Dia. (m) 0.05/0.05	Date Monitore Ground Surfac Top of Casing Northing: 554	ce Elev. (m) 1487.546 Elev. (m) 1488.377		PAGE 1 OF 1 Project Number: 684431 Borehole Logged By: JM Date Drilled: 2021 09 16 Log Typed By: VL
Drilling Legend Sample Interval V V Air Rotary Li tidde	Water/NAPL Levels ▼ Water Level 1 □ Water Level 2 • NAPL □ NAPL	Stratigraphy Plot Sample Interval Core Run Sample Number	Blow Count	indicated scale Reading outside indicated scale Soil Vapour (ppm) Solid PVC Slotted PVC Well Name 1: GH_MW_FR3B
Soil Des SANDY CLAY, fine to coarse gr gravel, fine to coarse, subrounded plasticity, damp. SAND and GRAVEL, fine to coarse gravel, subrounded to ar brown, loose, dry. 2- At 3.0 m - damp.	ained sand, some silt, some ed, dark brown, soft, low		M % 10 ¹	10 ² 10 ³ 10 BENTONITE GH_MW_FR3B
SILT and CLAY, soft. 5 6 Bottom of hole at 6.1 m.				BENTONITE
9-		NOTES		and clay fractions inferred based on plasticity

	SNC+LAVA	TINI	т	eck C	Client oal Lin	nited			Borehole No. : GH_BH_FR4A	
Y))	SINCYLAVA		Teck Coa		ional C	Froundy	vater		PAGE 1 OF 4	
Drilling Boreho	y Contractor JR Drilling y Method Dual Rotary ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5545820.	. (m) ´	1492 1493	1 11 21 2.543 3.240 ting: 653	169.21	16	Project Number: 684431 Borehole Logged By: JM Date Drilled: 2021 09 17 Log Typed By: VL	
Depth in Metres	Drilling Legend Sample Interval ▼▼▼▼ Air Rotary	Water/NA ▼ Water Lev □ Water Lev • NAPL □ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm) Soil Name 1: GH_MW_FR4A	
ă	Soil Des	cription		Stra	Sar	Sar	В	Ж	10 ¹ 10 ² 10 ³ 10 ⁴	
0-	SILT and CLAY, some sand, find dark brown, firm, low plasticity, o	e grained, som dry, contains ro	ne gravel, fine, pots to 0.3 m.							
	SANDY CLAY, fine grained sand dark brown, soft, medium plastic	d, some silt, so city, dry.	ome gravel, fine,							
2-	At 2.1 m - moist.									
3-	SILT and CLAY, some gravel, fil From 2.9 m to 18.9 m - limited re	ne, soft, moist. eturns.							Y	
5-	At 4.3 m - wet.								BENTONITE	
7-										
8 9 9 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1								-		
9 110				NOT Diffe and	TES erentia select	ation be t grain s	twee	en sil anal	t and clay fractions inferred based on plasti	icity

	CNIC . T ANIA	TINI	Te	ck C	Client oal Lim	ited			Boreho	ole No. : GH_BH_FR4A
7))	SNC · LAVA		Teck Coa		cation ional G	roundw	ater/			PAGE 2 OF 4
Drilling Boreho	Contractor JR Drilling Method Dual Rotary Ile Dia. (m) 0.15 otted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5545820.8	(m)	1492 1493		169.21		Project Number: Borehole Logger Date Drilled: Log Typed By:	: 684431 d By: JM 2021 09 17 VL
Depth in Metres	Drilling Legend Sample Interval ▼▼▼▼ Air Rotary	▼ Water Le		Stratigraphy Plot	Sample Interval Core Run	Sample Number	ount		 Reading within indicated scale Reading outside indicated scale Soil Vapour 	Solid PVC Slotted PVC Well Name 1: GH_MW_FR4A
Depth	Soil Des			Stratigra	Sample Core Ru	Sample	Blow Count	% Recovery	(ppm)	
10-		•	(continued)					10	D ¹ 10 ² 10 ³ 10	1 1
11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	BEDROCK, siltstone, weathered			NOT	ES					GH_MW_FR4A —— BENTONITE
JAVUC: 1C.2				and	select	grain s	iwee size a	analys	and clay fraction sis samples.	s inferred based on plasticity

	CNIC . T ANIA	TINI	Т	eck C	Client oal Lin	nited			Boreho	le No. : GH_BH_FR4A
7//	SNC+LAVA	LLIN	Teck Coa		cation ional G	iroundv	vater			PAGE 3 OF 4
Drilling Boreho	Contractor JR Drilling Method Dual Rotary Die Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5545820.	. (m) ´	1492 1493	11 21 2.543 3.240 ing: 653	169.21	16	Project Number: Borehole Logged Date Drilled: Log Typed By:	684431 d By: JM 2021 09 17 VL
Depth in Metres	Drilling Legend Sample Interval ▼▼▼▼ Air Rotary	Water/NA ▼ Water Lev ✓ Water Lev ◆ NAPL ◇ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: GH_MW_FR4A
De	Soil Des	scription		Strat	Sam	Sam	Bo	% R	10 ¹ 10 ² 10 ³ 10	
20-00/00; 1C 202111 10 Jaie: 203-23-23-23-23-23-23-23-23-23-23-23-23-23	BEDROCK, siltstone, weatherer (continued) Between 28.0 m and 28.3 m - c fine. At 28.7 m - wet.	d, fine grained,		**************************************						BENTONITE
QA/QC: TC 2021				NOT Diffe and	erentia	tion be grain s	twee	en sil anal	t and clay fraction sis samples.	s inferred based on plasticity

	CRIC. I ANIA	TINI	Т	eck C	Client oal Lin	nited				Borehol	e No. : GH_BH_FR4A
7)	SNC·LAVA		Teck Coa		ocation ional C	Froundw	ater				PAGE 4 OF 4
Drilling Boreh	g Contractor JR Drilling I Method Dual Rotary ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5545820.	. (m) ´	1492 1493	1 11 21 2.543 3.240 ting: 6531	69.21	6		Project Number: Borehole Logged Date Drilled: Log Typed By:	684431 By: JM 2021 09 17 VL
Depth in Metres	Drilling Legend Sample Interval TYYY Air Rotary Soil Des	▼ Water Lev ▼ Water Lev • NAPL • NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	•	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: GH_MW_FR4A
31-33-33-33-	BEDROCK, siltstone, weathered (continued) At 30.5 m - calcification present.		dark grey, dry.	*****							BENTONITE
35-38-38-38-38-38-38-38-38-38-38-38-38-38-	Bottom of hole at 34.8 m.										
0A00C: 1C 2021 11 10 Print Dale: 202-24				NO TO Difference	FES erentia select	ution bel	wee	n silli naly	t ar	nd clay fractions samples.	s inferred based on plasticity

~!!	SNC+LAVA	TINI	1	eck C	Client oal Lin	nited				Borehol	e No. : GH_BH_FR4B
7 //	SINCYLAVA		Teck Co		ocation ional G	iroundv	vater				PAGE 1 OF 1
Drilling Boreho	Contractor JR Drilling Method Dual Rotary ble Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface El Top of Casing Elev Northing: 5545819	/. (m̀) ´	1492 1493		171.34	14		Project Number: Borehole Logged Date Drilled: Log Typed By:	684431 By: AH 2021 09 17 VL
Depth in Metres	Drilling Legend Sample Interval ▼▼▼ Air Rotary Soil Des	▼ Water Let ▼ Water Let ◆ NAPL ◇ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	•	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm) 10² 10³ 10⁴	Solid PVC Slotted PVC Well Name 1: GH_MW_FR4B
1-	SILT and CLAY, some sand, fine coarse, subrounded, dark brown SILTY SAND, fine grained sand, to coarse, dark brown, firm, dam	, firm, damp.									
3	Between 2.4 m and 3.4 m - soft, GRAVELLY CLAY, some silt, tra brown, loose, low plasticity, wet.		grained, dark								BENTONITE
7	SANDY CLAY, fine grained sand soft, medium plasticity, wet.	1, some silt, d	ark brown, very								GH_MW_FR4B
10-	Bottom of hole at 9.1 m.			<u> </u>	1 ~ . ~ . ~				:	_; ; ;	<u> ° ° ° ° ° ° ° ° ° ° ° ° ° ° ° °</u>
10-				NOT Diffe and	TES erentia select	tion be	twee	en sil analy	t an ysis	d clay fractions samples.	s inferred based on plasticity

*))	SNC+LAVA	TIN	Т	eck C	Client coal Lir					Borehol	e No. :	GH_BH_FR5A
			Teck Co		ocation gional (water				PAGE [*]	1 OF 6
Drilling Boreho	Contractor Mud Bay Drilling Co. Ltd. Method Vibratory Sonic ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface El Top of Casing Elev Northing: 5545476	ر. (m̀) ´	148 148	1 10 06 7.844 8.769 ting: 653	287.7	22		Project Number: Borehole Logged Date Drilled: Log Typed By:	By:	684431 TC 2021 09 21 VL
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NAI ▼ Water Lev □ Water Lev • NAPL □ NAPL	el 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	w Count	% Recovery		Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	sı	olid PVC lotted PVC ame 1: GH_MW_FR5A
De	Soil Des	cription		Stra	San	San	Blow	% R	1 ₀ 1	10 ² 10 ³ 10 ⁴		П
2	SILTY SAND, fine grained sand. SAND, fine grained, trace grave GRAVELLY SAND, fine to coars subrounded gravel, some silt, we to 80 mm diameter, brown, loose SILT and CLAY, grey, very soft,	I, subrounded, se grained sand ell graded, con e, wet.	grey, loose, dry. d, rounded to taining cobbles					100			<pre>F####################################</pre>	# # # # # # # # # # # # # # # # # # #
10				NO Bold	TES ded sa erentia selec	ample d ation be t grain	lenot etwee size	es s en si anal	amp It an	ole analyzed (g nd clay fractions samples.	######################################	# #

	A CRIC. I AND	TINI	Te		Client oal Lir	nited			Borel	ole No.	: GH_BH_FR5A
7) SNC+LAVA	LLIN	Teck Coal		cation ional (Froundw	ater			PAGE	E 2 OF 6
Drilli Bore	ng Contractor Mud Bay Drilling Co. Ltd ng Method Vibratory Sonic hole Dia. (m) 0.15 Slotted Pipe Dia. (m) 0.05/0.05	l.	Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5545476.8	(m) '	148 148	1 10 06 7.844 3.769 ting: 6532	87.72	22	Project Numb Borehole Log Date Drilled: Log Typed By	ged By:	684431 TC 2021 09 21 VL
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Lev ✓ Water Lev ◆ NAPL △ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	overy	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)		Solid PVC Slotted PVC Name 1: GH_MW_FR5A
Dept	Soil Des	scription		Stratig	Sample Core R	Sample	Blow	% Recovery	(ppiii)	104	
- 10-									10 ¹ 10 ² 10 ³	101	-+
11-	SANDY CLAY, fine to coarse gi to coarse, rounded to subround	rained sand, so	ome gravel, fine			FR5A-05		100			#
OA/OC: TC 20211110 Print Date:2023-03-24	CLAYEY SAND, fine to coarse to coarse, subrounded to subar	se gravel, roun- rained, containi stiff, damp.	containing y, loose, moist. ded to ing cobbles to some gravel, fine			FR5A-06		70		# # # # # # # # # # # # # # # # # # # #	# # # # # # # # # # # # # # # # # # #
QA/QC: TC 202				Diffe	led sa erentia	ition bet	wee	n si	ample analyzed It and clay fracti ysis samples.	(grain si ons infer	ze distribution). red based on plasticity

	CNIC . T AND	TINT	To		Client oal Li	nited			Boreho	le No. : (GH_BH_FR5A
V)	SNC · LAVA	ALIN	Teck Coa		ocation jional (<i>r</i> ater	•		PAGE 3	OF 6
Drilling Boreho	Contractor Mud Bay Drilling Co. Ltd Method Vibratory Sonic ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05	l.	Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5545476.	. (m) ´	148 148	1 10 06 7.844 8.769 ting: 6532	287.7	22	Project Number: Borehole Logged Date Drilled: Log Typed By:	d By: T	84431 C 021 09 21 ⁽ L
letres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Lev ▼ Water Lev		Plot	ıval	nber	Į,		Reading within indicated scale Reading outside indicated scale	1 ⊟	lid PVC
Depth in Metres		NAPL NAPL NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Soil Vapour (ppm)	Well Nar	me 1: GH_MW_FR5A
	Soil Des	scription		₺	ဟိပိ	ű		%	10 ¹ 10 ² 10 ³ 10	1	
21-	CLAYEY SAND, fine to coarse to coarse, subrounded to subar medium dense, damp. (continual states of the coarse, subangular, some gravel, front subangular, some silt, trace sar containing cobbles to 110 mm of SANDY SILT, fine to coarse gravel, fine to coarse, subround	ine to coarse, r se gravel, subrad, fine to coars id, fine to coars idiameter, grey, ained sand, trad led to subangu	ounded to se grained, stiff, damp. ce clay, trace			FR5A-08		100			# # # # # # # # # # # # # # # # # # #
24	SILT and CLAY, some sand, so rounded, grey, soft, medium plate of the sand, coarse of the sand sand sand sand sand sand sand sand	gravel, coarse.					80			# # # # # # # # # # # # # # # # # # #	
0A/QC: TC 2021 11 10 Print Date:2023-05-24	GRAVELLY CLAY, subangular fine to coarse grained, some sil SANDY SILT, some gravel, fine clay, containing one cobble to 1 stiff, low plasticity, dry. GRAVELLY CLAY, fine to coars sand, fine to coarse grained, co	t, grey, stiff, da e to coarse, sub 50 mm diamet se gravel, subro	pangular, trace er, brown, very ounded, some							# # # # # # # # # # # # # # # # # # #	# # # # # # # # # # # # # # # # # # #
QA/QC: TC 2021 11				Diffe	ded sa erentia	ation be	twe	en si	ample analyzed (g It and clay fraction ysis samples.	rain size s inferred	distribution). I based on plasticity

	CNIC . T ANIA	TINI	Т		Client oal Lin	nited			Boreho	le No. : (GH_BH_F	R5A
 	SNC·LAVA	LLIN	Teck Coa		cation ional (Froundw	ater			PAGE 4	OF 6	
Drilling Boreh	g Contractor Mud Bay Drilling Co. Ltd y Method Vibratory Sonic ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05	l.	Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5545476.	′. (m̀) ´	148 148	1 10 06 7.844 3.769 ting: 6532	287.72	22	Project Number: Borehole Logged Date Drilled: Log Typed By:	d By: T 2	684431 FC 2021 09 21 /L	
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Lev ⊽ Water Lev • NAPL ◇ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Slo	olid PVC otted PVC me 1: GH_MW	
De	Soil Des	scription		Stra	San	San	Blo	% R	10 ¹ 10 ² 10 ³ 10	14		
30 - 30 - 30 - 31 - 31 - 31 - 32 - 33 - 33 - 33 - 33	diameter, brown, stiff, damp. SANDY CLAY, fine to coarse git to coarse, subrounded, containin diameter, brown, loose, moist. CLAY and GRAVEL, fine to coarse git, containing cobt soft, medium plasticity, damp. At 32.3 m - dry. SANDY CLAY, fine to coarse gisubrounded to subangular, som plasticity, moist to wet. Between 33.2 m and 33.5 m - cidiameter. GRAVELLY CLAY, fine to coarse subangular, some silt, some sail brown, firm, medium plasticity, to subrounded. At 35.7 m - containing cobbles to subrounded. At 36.4 m - wet. CLAYEY SAND, fine to coarse to coarse, rounded to subrounded mm diameter, rounded, dark brown, very loose, wet. At 39.3 m - increasing gravel, coarse gravel, on and 40.8 m - coarse	rained sand, so the silt, brown, vontaining cobb see gravel, subround, fine to coarmoist. To 110 mm diarrained sand, seed, containing cown, loose, we carse grained sand, some commontaining cobb	orounded, some diameter, grey, ome gravel, fine, ery soft, high les to 150 mm ounded to se grained, dark oneter, some gravel, fine cobbles to 100 t.			FR5A-13		80				ROUT
40-	diameter, rounded to subrounde		, ,		<u> </u>				<u> </u>	# #	# #	
QA/QC: TC 2021				Diffe	led sa erentia	ition be	twee	en si	ample analyzed (g t and clay fraction ysis samples.	rain size s inferred	distributior d based on	n). plasticity

	CNIC . T ANIA	TINI	т		Client oal Li r	nited			Borehole No. : GH_BH_FR5A			
7//	SNC · LAVA	LLIN	Teck Coa		cation ional (/ater				PAGE 5 OF 6	
Drilling Boreho	Contractor Mud Bay Drilling Co. Ltd Method Vibratory Sonic ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5545476.	. (m) ´	148 148	1 10 06 7.844 8.769 ting: 6532	287.72	22		Project Number: Borehole Logged Date Drilled: Log Typed By:	684431 By: TC 2021 09 21 VL	
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Lev ✓ Water Lev • NAPL ◇ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	• F	Reading within ndicated scale Reading outside ndicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: GH_MW_FR5	A
De	Soil Des	scription		Stra	San	Sam	Blo	% R	1 ₀ 1	10 ² 10 ³ 10 ⁴		
41-	SAND and GRAVEL, fine to coccoarse gravel, rounded to subrodark brown, very loose, wet. (cocoarse gravel). Between 40.8 m and 43.0 m - coccoarse gravel, rounded to subrounded	ounded, some ontinued) ontaining cobb	clay, well graded,								# # # # # # # # # # # # # # # # # # #	
44-	At 42.7 m - orange staining. SILTY GRAVEL, fine to coarse subangular, some sand, fine to containing cobbles to 120 mm c subangular, dark brown, loose,	l, some clay,					50			BENTONIT	TE.	
46-	Between 45.7 m and 46.0 m - c diameter, orange staining. At 46.9 m - containing one cobb							50				
rint Date:2023-03-24	At 47.9 m - pocket of sand, fine SANDY GRAVEL, fine to coars coarse grained sand, some silt, At 48.8 m - containing one cobb. SILTY SAND, fine to coarse gra subrounded, dark brown, very lo Between 49.1 m and 49.7 m - s 100 mm diameter.	nnge staining. ne gravel, fine, aining cobbles to			FR5A-16		100			GH_MW_FI	R5A	
OA/QC: TC 2021 11 10 Print Date:2023-03-24 04	SILT and CLAY, some sand, fin	e to coarse gra	ained, some	Diffe	ded sa erentia	ation be	twee	n sil	t and	le analyzed (gi d clay fractions samples.	rain size distribution). s inferred based on plas	sticity

	ONIC T ANIA	TINI	Te		Client oal Lin	nited				Boreho	le No. : GH_BH_FR5A
*))	SNC · LAVA	LIN	Teck Coa		cation ional C	Groundw	vater				PAGE 6 OF 6
Drilling Boreh	g Contractor Mud Bay Drilling Co. Ltd. g Method Vibratory Sonic ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5545476.8	. (m)	1487 1488	1 10 06 7.844 3.769 ing: 6532	287.72	22		Project Number: Borehole Logged Date Drilled: Log Typed By:	684431 By: TC 2021 09 21 VL
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Lev □ Water Lev • NAPL ○ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	•	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: GH_MW_FR5A
De	Soil Des	cription		Stra	San	San	Blo	% R	1 ₀ 1	10 ² 10 ³ 10	
50-	gravel, containing cobbles to 90 plasticity. BEDROCK, siltstone, weathered BEDROCK, mudstone, weather Bottom of hole at 50.9 m.	d, grey, dry. (co	ontinued)	* ; * ;							
53-	Solidin of Hole at 50.5 III.										
2040C: 1C 2021 11 10 Print Date: 2023-05-24				NOT	FES	mple de	onat	20.50	am	nle analyzed (a	rain siza distribution)
JA/40: 102				Bold Diffe	ded sa erentia	mple de ition be grain s	enot twee size	es s en si anal	am It ai ysis	ple analyzed (g nd clay fraction s samples.	rain size distribution). s inferred based on plasticity

*))	SNC+LAVA	LIN	Ted	ck Co	ient al Lim	nited			Boreho	le No. : GH_BH_FR5B
			Teck Coal			roundw	ater			PAGE 1 OF 3
Drilling Boreho	Contractor Mud Bay Drilling Co. Ltd Method Vibratory Sonic ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05	Gr To	te Monitored ound Surface Elev p of Casing Elev. (orthing: 5545478.05	m)	1487 1488		286.67	'5	Project Number: Borehole Logged Date Drilled: Log Typed By:	
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NAPL ▼ Water Level 1 ▽ Water Level 2 • NAPL ◇ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: GH_MW_FR5B
De	Soil Des	scription		Stra	San	San	Blo	~	0 ¹ 10 ² 10 ³ 10	21 🗆
- 0-	SILTY SAND, fine grained sand	l, some clay, brown	n, soft, moist.					60		
2-	SAND, fine grained, trace grave GRAVELLY SAND, fine to coar subrounded gravel, some silt, w to 80 mm diameter, brown, loos	se grained sand, rell graded, contain	ounded to							¥ // //
3-	SILT and CLAY, grey, very soft,	high plasticity, mo	oist.					100		
4-					************************************					
5-										BENTONITE
7-								100		
8-										
9-	At 9.1 m - soft.							100		
9-				NOTE Differ and s	rentia	tion be grain s	twee	n sil analy	t and clay fraction sis samples.	s inferred based on plasticity

	CRIC. I ANIA	т		Client oal Lin	nited			Borehol	e No. : GH_BH_FR5B	
7))	SNC+LAVA	Teck Coa		ocation jional G	roundv	vater			PAGE 2 OF 3	
Drilling Boreh	g Contractor Mud Bay Drilling Co. Ltd. g Method Vibratory Sonic ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5545478.0	. (m) ´	1487 1488	1 10 06 7.888 3.672 ing: 6532	286.67	' 5	Project Number: Borehole Logged Date Drilled: Log Typed By:	684431 By: TC 2021 09 21 VL
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Lev ▽ Water Lev ◆ NAPL ◇ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count		Peading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: GH_MW_FR5B
	Soil Desc	cription		Stra	Sar	Sar	ă	% 10	¹ 10 ² 10 ³ 10 ⁴	
11-	SILT and CLAY, grey, very soft, h	igh plasticity	moist.					100		BENTONITE
16-	SANDY CLAY, fine to coarse gra to coarse, subrounded to subang 120 mm diameter, soft, wet.	ined sand, sc ular, containii	ome gravel, fine ng cobbles to					70		GH_MW_FR5B
18-	SAND and GRAVEL, fine to coar coarse gravel, some silt, trace clamm diameter, grey, loose, wet.	se grained sa ay, containing	and, fine to cobbles to 90					50		SAND
19-	SILT and CLAY, grey, very stiff, n	nedium plasti	city, damp.							
20-	SAND and GRAVEL, fine to coar coarse gravel, rounded to subrou cobbles to 130 mm diameter.	se grained sa nded, some s	and, fine to silt, containing							BENTONITE
				NO ⁻ Diffe	erentia	ition be	etwee	n silt analys	and clay fractions is samples.	s inferred based on plasticity

	CNIC . T ANIA	TINI		Teck C	Client oal Lin	nited				Borehol	e No. : GH_BH_FR5B
*/)	SNC · LAVA		Teck C		cation ional C	Groundy	vater				PAGE 3 OF 3
Drilling Boreho	Contractor Mud Bay Drilling Co. Ltd. Method Vibratory Sonic ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface I Top of Casing El Northing: 554547	ev. (m)	1487 1488	1 10 06 7.888 3.672 ting: 6532	286.67	75		Project Number: Borehole Logged Date Drilled: Log Typed By:	684431 By: TC 2021 09 21 VL
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Lev □ Water Lev • NAPL □ NAPL		 Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	•	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: GH_MW_FR5B
De	Soil Des	cription		Stra	Sam	San	Blo	% R	1 ₀ 1	10 ² 10 ³ 10 ⁴	
20-	SAND and GRAVEL, fine to coa coarse gravel, rounded to subro cobbles to 130 mm diameter. (c	unded, some s ontinued)	silt, containing								BENTONITE
	SILT, some clay, grey, very stiff,	low plasticity,	damp.								
	Bottom of hole at 21.5 m.										
22-											
23-											
24-											
25											
26-											
27-											
28-											
20											
3-03-24											
ate:2023											
Print C											
₹ - 30-]				NOT	ΓES						
0A/QC: TC 2021 11 10 Print Date: 2023-03-24				□ Diffe	erentia	tion be t grain s	twee	en sil analy	t ar ⁄sis	nd clay fractions samples.	s inferred based on plasticity
ğ											

~))	SNC·LAVA	TIN	т	eck C	Client oal Lir				Boreh	ole No. : GH_BH_FR6
\ * //	SINCILAVA		Teck Coa		ocation ional (vater			PAGE 1 OF 1
Drilling Boreho	Contractor Mud Bay Drilling Co. Ltd Method Vibratory Sonic ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05	l.	Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5545300.	′. (m̀) ´	149 149	1 10 05 0.767 1.537 ting: 653	861.0	40	Project Number Borehole Logge Date Drilled: Log Typed By:	
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Le ▽ Water Le ◆ NAPL ◇ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: GH_MW_FR6
De	Soil Des	scription		Strat	Sam	Sam	Bo	% R	10 ¹ 10 ² 10 ³ 1	 o1
1-	SILT, some gravel, fine to coars low plasticity, damp, organics (r SAND and GRAVEL, fine to cocoarse gravel, subrounded, son plasticity, massive, damp. Between 0.6 m and 2.7 m - organical coarse.	arse grained sane silt, brown,	and, fine to loose, low					80		
2-	At 2.1 m - wet.							50		BENTONITE
4-	Between 3.7 m and 4.0 m - san	d, well graded,	loose, wet.							GH_MW_FR6
5-	CLAYEY SILT, grey, stiff, high p	plasticty majet				FR6-02		120		5-4-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-
7-	OBVIET OILT, groy, Juli, hight	nastoty, moist								BENTONITE
8-	Bottom of hole at 8.8 m.					FR6-03				
9-										
9-10-				NOT Bold Diffe and	ded sa erentia	imple d ation be t grain s	enot twee	es sa en sil anal	ample analyzed (t and clay fractior sis samples.	grain size distribution). s inferred based on plasticity

	CRIC. T ANIA	TINI	Te		Client Coal Lir	nited			Boreho	ole No. : GH_BH_FR7
 7 //	SNC+LAVA	LII	Teck Coa		ocation jional (Groundy	<i>r</i> ater			PAGE 1 OF 6
Drilling Boreho	g Contractor Mud Bay Drilling Co. Ltd. g Method Vibratory Sonic ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5545431.	. (m̀) ´	149 149	1 10 06 1.862 2.519 ting: 6537	753.23	38	Project Number: Borehole Logged Date Drilled: Log Typed By:	
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Lev ✓ Water Lev ◆ NAPL ◇ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: GH_MW_FR7
	Soil Desc	cription		l ts	တ္တလိ	Sa	՝	% 1	0 ¹ 10 ² 10 ³ 10	
1	SILT, some sand, fine grained, s medium plasticity, damp to moist staining.	ome clay, bro , organics (ro	wn, soft, ots), orange					80		CONCRETE
3-	SAND and GRAVEL, fine to coar coarse gravel, subrounded, some 100 mm diameter, loose, wet.	se grained sa e silt, containi	and, fine to ng cobbles to			FR7-02		80		T
5	SILT and CLAY, grey, very soft, h	igh plasticity	massive, moist.					100		BENTONITE
9-10-				NO Bold Diff and	TES saded saderential selections	mple d	enot-twee	es sa en silt	mple analyzed (g and clay fraction sis samples.	grain size distribution). s inferred based on plasticity

	CRIC. T AND	TINI	Te	ck C	Client oal Lin	nited			Boreho	ole No. : GH_BH_FR7
7))	SNC+LAVA		Teck Coa		cation ional G	roundv	vater			PAGE 2 OF 6
Drilling Boreho	Contractor Mud Bay Drilling Co. Ltd. Method Vibratory Sonic ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5545431.	(m)	1491 1492	1 10 06 1.862 2.519 ing: 653	753.23	38	Project Number: Borehole Logged Date Drilled: Log Typed By:	684431 I By: MM 2021 09 25 VL
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Le ▽ Water Le ◆ NAPL ◇ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count		Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: GH_MW_FR7
	Soil Des	cription		Stra	S Sa	Sal	ā	% 10	0 ¹ 10 ² 10 ³ 10	
11-	SILT and CLAY, grey, very soft, (continued)	high plasticity	, massive, moist.					100		BENTONITE
				NOT Bold Diffe	r ES led sa erentia select	mple d ition be grain s	enote twee size a	es sa en silt analys	mple analyzed (g and clay fraction sis samples.	rain size distribution). s inferred based on plasticity

	CNIC . T AND	TINI	Te		Client oal Lir	nited				Boreho	le No. : Gl	1_BH_FR7
7/)	SNC · LAVA	TTIN	Teck Coa		cation ional (Froundw	ater				PAGE 3 O	F 6
Drilling Boreh	g Contractor Mud Bay Drilling Co. Ltd g Method Vibratory Sonic ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05	l.	Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5545431.	(m) ´	149 149	1 10 06 1.862 2.519 ting: 6537	7 53.23	88		Project Number: Borehole Logged Date Drilled: Log Typed By:		31 09 25
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Lev ✓ Water Lev ◆ NAPL ◇ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	•	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid P ¹ Slotted Well Name 1	
Dep	Soil Des	scription		Strat	Sam	Sam	Blov	% Re	1 ₀ 1	10 ² 10 ³ 10 ⁴		
20–207 11 10 Avioc: TC 2021 11 10 Print Date: 203-03-03-03-03-03-03-03-03-03-03-03-03-0	SILT and CLAY, grey, very soft, (continued) Between 21.0 m and 24.1 m - 1	, high plasticity,	massive, moist.			FR7-08		130				BENTONITE
3A/QC: TC 2021				NOT Bold Diffe and	r ES ded sa erentia selec	mple de ition bet t grain s	enote twee size a	es sa n sil analy	amp t an ysis	ole analyzed (g nd clay fractions samples.	rain size dist s inferred ba	tribution). sed on plasticity

	CNICAT AND	TINI	Te		Client oal Lin	nited			Boreh	ole No. : GH_BH_FR7
7)	SNC·LAVA	LLIN	Teck Coa		cation ional G	roundv	<i>r</i> ater			PAGE 4 OF 6
Drilling Boreho	Contractor Mud Bay Drilling Co. Ltd Method Vibratory Sonic ble Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5545431.	(m)	1491 1492		753.23	38	Project Number: Borehole Logge Date Drilled: Log Typed By:	: 684431 d By: MM 2021 09 25 VL
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Le ⊽ Water Le • NAPL ∴ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: GH_MW_FR7
De	Soil Des	scription		Strat	Sam	Sam	Bjo	N %	0 ¹ 10 ² 10 ³ 10	
33 - 33 - 33 - 33 - 33 - 33 - 33 - 33	SILT and CLAY, grey, very soft, (continued) At 34.3 m - 5 mm thick silt sean At 34.4 m - 5 mm thick silt sean At 34.4 m - 150 mm thick layer	n. n.		NOT	FS	FR7-13		100		BENTONITE
JAVAC: 10 ZUZI				NOT Bold Diffe and	ded sa erentia	mple de tion be grain s	enot twee size	es sa en silt analy	mple analyzed (o and clay fractior sis samples.	grain size distribution). is inferred based on plasticity

	CNIC . T ANIA	TINI	To		Client oal Lir	nited			Boreh	ole No. : GH_BH_FR7
7)	SNC · LAVA	LLIN	Teck Coa		cation ional (/ater			PAGE 5 OF 6
Drilling Boreh	g Contractor Mud Bay Drilling Co. Ltd g Method Vibratory Sonic ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5545431.	. (m) ´	149 149	1 10 06 1.862 2.519 ting: 6537	753.23	38	Project Number: Borehole Logge Date Drilled: Log Typed By:	
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Lev □ Water Lev • NAPL • NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: GH_MW_FR7
Dep	Soil Des	scription		Strati	Samp	Samp	Blov	% Re	10 ¹ 10 ² 10 ³ 10	71
40 – 40 – 40 – 41 – 41 – 41 – 41 – 41 –	SILT and CLAY, grey, very soft, (continued) Between 43.3 m and 43.6 m - s SANDY SILT, fine to coarse gragravel, fine, subangular, stiff, lot CLAYEY SILT, grey, stiff to very moist.	high plasticity, ilt, some sand, ained sand, sor w plasticity, ma	fine grained. me clay, trace assive, wet.			FR7-15		130		BENTONITE
2A/QC: TC 2021 11				NOT Bold Diffe	r ES ded sa erentia selec	imple de ation be t grain s	enot twee size	es sa en sil anal	ample analyzed (g t and clay fractior ysis samples.	grain size distribution). is inferred based on plasticity

	CRIC. T ANIA	TINI	Т		Client oal Lir	nited			Boreho	ole No. : GH_BH_FR7
 *//	SNC · LAVA		Teck Coa		cation ional (ater			PAGE 6 OF 6
Drilling Boreho	g Contractor Mud Bay Drilling Co. Ltd. y Method Vibratory Sonic ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5545431.	. (m) ´	149 149	1 10 06 1.862 2.519 ting: 6537	753.23	38	Project Number: Borehole Logger Date Drilled: Log Typed By:	
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Lev □ Water Lev • NAPL ○ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	 Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm) 	Solid PVC Slotted PVC Well Name 1: GH_MW_FR7
De	Soil Des	cription		Stra	San	San	Blo	% R	10 ¹ 10 ² 10 ³ 10	9
50-	CLAYEY SILT, grey, stiff to very moist. (continued)	stiff, high plas	ticity, massive,					100		BENTONITE
52-	SAND, fine to medium grained, loose, massive, wet.	some silt, trac	e clay, grey, very			FR7-19A				GH_MW_FR7
53-	SAND and GRAVEL, fine to coacoarse gravel, subangular, some massive, wet. At 53.0 m - 300 mm thick layer of clay. At 54.3 m - 150 mm thick layer of the same statement of the s	e silt, well grac	led, grey, loose, rained, some			FR7-19B				SLOUGH
OA/OC: TC 202111 10 Print Date: 2023-03-224	Bottom of hole at 54.6 m.			KA ID						
QA/QC: TC 2021				Diffe	ded sa erentia	ation be	twee	n sil	ample analyzed (o t and clay fraction sis samples.	rain size distribution). s inferred based on plasticity

	CNIC . T ANIA	TINI	Т		Client oal Lin	nited			Boreho	le No. : GH_BH_FR8A
7 //	SNC+LAVA	TIN	Teck Coa		ocation ional (Groundy	vater			PAGE 1 OF 6
Drilling Boreh	g Contractor Mud Bay Drilling Co. Ltd. g Method Vibratory Sonic ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface El Top of Casing Elev Northing: 5545205	/. (m̀) ´	1492 1492	1 10 05 2.112 2.995 ting: 654	145.60	8	Project Number: Borehole Logged Date Drilled: Log Typed By:	684431 I By: AH NA VL
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Lev ⊽ Water Lev ◆ NAPL ◇ NAPL	rel 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: GH_MW_FR8A
	Soil Des	cription		Stra	Sa	Saı	B	% 10¹	10 ² 10 ³ 10	
0-	SILTY SAND, fine grained sand, plasticity, wet. Between 0.0 m and 0.9 m - conta	aining coal, bla						80		
2-	Between 1.5 m and 2.1 m - orang	ge staining.								
3-	Between 2.4 m and 2.7 m - fine to SAND and GRAVEL, fine to coar coarse gravel, subrounded, trace	rse grained sa	nd, fine to					80		
4-	SANDY CLAY, fine grained sand medium plasticity, wet. SANDY SILT, fine grained sand,									BENTONITE
6-	plasticity, wet.	7/3	,					100		
7-	SILT and CLAY, grey, soft, medi	um plasticity, \	wet.							
8-	At 8.2 m - high plasticity, moist.									
9-	· · · · · · · · · · · · · · · · · · ·							100		
10-				NOT Diffe and	rES erentia selec	ation be	etwee size a	n silt a	and clay fractions s samples.	s inferred based on plasticity

	CNIC AT ANIA	TINI	Te		Client oal Lin	nited				Borehol	e No. :	GH_BH_	FR8A
 	SNC·LAVA		Teck Coa		cation ional G	roundw	vater				PAGE 2	2 OF 6	
Drilling Boreho	Contractor Mud Bay Drilling Co. Ltd Method Vibratory Sonic ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05	l.	Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5545205.2	(m)	1492 1492	10 05 .112 .995 ng: 6541	145.60	08		Project Number: Borehole Logged Date Drilled: Log Typed By:	By: A	684431 AH NA VL	
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Le ▽ Water Le ◆ NAPL ◇ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	• ! • i	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Sle	olid PVC otted PVC mme 1: GH_M	W_FR8A
Dek	Soil Des	scription		Strat	Sam	Sam	Blo	% Re	1 ₀ 1	10 ² 10 ³ 10 ⁴			
11 11 12 13 13 14 15 15 15 15 15 15 15 15 15 15 15 15 15	SILTY SAND, fine grained sand plasticity, wet. SILT and CLAY, grey, soft, high	lium plasticity,	ey, soft, low	NOT				100					BENTONITE
JAVAC: 10 2021				NOT Diffe and	erentia	tion be grain s	twee size	en sil anal	t an ysis	d clay fractions samples.	sinferred	d based o	n plasticity

*))	SNC+LAVA	TIN	Т	eck C	Client oal Lim	nited			Borehol	e No. : GH_BH_FR8A
			Teck Coa		ocation ional G	roundw	ater		1	PAGE 3 OF 6
Drilling Boreho	Contractor Mud Bay Drilling Co. Ltd Method Vibratory Sonic ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5545205.	(m)	1492 1492		145.60)8	Project Number: Borehole Logged Date Drilled: Log Typed By:	684431 By: AH NA VL
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Le ▽ Water Le • NAPL ◇ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: GH_MW_FR8A
De	Soil Des	scription		Strai	Sam	Sam	Blo	8 K	1,0 ¹ 1,0 ² 1,0 ³ 1,0 ⁴	
21	SILT and CLAY, grey, soft, high	plasticity, moi		NO ₀ Diffe	TES erentia	tion be	twee	100		BENTONITE Sinferred based on plasticity
				Diffe	erentia	tion be grain s	twee size a	n sil anal	t and clay fractions /sis samples.	s inferred based on plasticity

	CNIC . T AND	TINI	Te		Client oal Lin	nited				Boreh	ole N	o. : G	H_BH_	FR8A
7)	SNC+LAVA		Teck Coa		cation ional G	iroundv	vater				PAG	GE 4 (OF 6	
Drilling Boreh	g Contractor Mud Bay Drilling Co. Ltd g Method Vibratory Sonic ole Dia. (m) 0.15 Slotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5545205.2	(m) ´	1492 1492	10 05 1.112 1.995 ing: 654	145.6	08	 	Project Numbe Borehole Logg Date Drilled: Log Typed By:	ed By:	684 AH NA VL		
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NAF ▼ Water Leve □ Water Leve • NAPL □ NAPL	el 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	• Re ind	eading within dicated scale eading outside dicated scale oil Vapour (ppm)	w		PVC ed PVC 1: GH_M\	W_FR8A
De	Soil Des	scription		Stra	Sam	Sam	Bo	% R	10 ¹	10 ² 10 ³ 1	10 ⁴			
31-32-	SILT and CLAY, grey, soft, high	t. (continued)					100							
33	SAND, fine grained, some silt, ç	grey, loose, wet.												
	SILT and CLAY, grey, soft, high	plasticity, moist	t.					100						
34	At 34.7 m - 2 mm thick sand, fir	ı.											BENTONITE	
38 - 38 - 38 - 38 - 38 - 38 - 38 - 38 -	At 38.4 m - 2 mm thick sand, fir	ı. _	NOT	erentia	tion be grain s	twee	100 100 en sil	t and	clay fractio amples.	nns info	erred b	pased of	n plasticity	

	SNC+LAVA	TINI	Т		Client oal Lin	nited			Borehol	e No. : GH_BH_FR8A
			Teck Coa		ocation ional G	roundw	/ater			PAGE 5 OF 6
Drilling I Borehole	Contractor Mud Bay Drilling Co. Ltd. Method Vibratory Sonic e Dia. (m) 0.15 otted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5545205.	(m) ´	1492 1492		145.60	8	Project Number: Borehole Logged Date Drilled: Log Typed By:	684431 By: AH NA VL
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Lev ∇ Water Lev • NAPL ○ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: GH_MW_FR8A
ă	Soil Des	cription		Stra	Sar	Sar	В	%	10 ¹ 10 ² 10 ³ 10 ⁴	
41-	SILT and CLAY, grey, soft, high	plasticity, mois	st. (continued)					100		BENTONITE GH_MW_FR8A
45-	SILTY SAND, fine grained sand, SILT and CLAY, grey, soft, high SAND, fine to medium grained, trace silt, grey, loose, wet. SILT and CLAY, grey, soft, high SANDY CLAY, fine to medium goft, medium plasticity, wet. SILT and CLAY, grey, soft, high At 45.7 m - 20 mm thick sand, fin	plasticity, mois trace gravel, fil plasticity, mois grained sand, s plasticity, mois	st. ne, subrounded, st. some silt, grey,					100		SAND
47:0-27021 12:00:00 1 10 Print Description 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				NO _D Differ and	erentia	tion be grain s	tweeesize a	n sil	t and clay fractions	BENTONITE s inferred based on plasticity

	SNC+LAVA	TINI	т		Client oal Lin	nited			Borehole No. : GH_BH_FR8A
7/)	SINC*LAVA		Teck Coa		ocation ional G	roundw	vater		PAGE 6 OF 6
Drilling Boreho	Contractor Mud Bay Drilling Co. Ltd Method Vibratory Sonic ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface El- Top of Casing Elev Northing: 5545205	/. (m̀) ´	1492 1492	1 10 05 2.112 2.995 ing: 6541	145.60		Project Number: 684431 Borehole Logged By: AH Date Drilled: NA Log Typed By: VL
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Lev □ Water Lev • NAPL □ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count		Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm) Solid PVC Slotted PVC Well Name 1: GH_MW_FR8A
De	Soil Des	scription		Strat	Sam	Sam	Blo	ਔ % 10	10 ¹ 10 ² 10 ³ 10 ⁴
51-52-53-54-	SILT and CLAY, grey, soft, high Between 50.3 m and 51.2 m - m At 51.2 m - 100 mm thick sand,	nedium dense.						100	BENTONITE
55-	Bottom of hole at 55.0 m.								<u>iii</u> .
24/QC: TC 2021 11 10 Print Date: 2023-03-24				NOT					
3A/QC: TC 2021				NOT Diffe and	r ES erentia select	ition be grain s	twee	n silt analys	t and clay fractions inferred based on plasticity sis samples.

	CRIC. T ANIA	ī		Client oal Lin	nited			Boreho	le No. : GH_BH_FR8B	
 7 //	SNC+LAVA	LII	Teck Co		cation ional C	Froundy	ater			PAGE 1 OF 1
Drilling Boreho	g Contractor Mud Bay Drilling Co. Ltd. g Method Vibratory Sonic ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface El Top of Casing Elev Northing: 5545206	/. (m̀) ´	1492 1492	1 10 05 2.125 2.993 ting: 654	145.78	31	Project Number: Borehole Logged Date Drilled: Log Typed By:	684431 By: AH NA VL
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Lev □ Water Lev • NAPL □ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	indicated scale	Solid PVC Slotted PVC Well Name 1: GH_MW_FR8B
٥	Soil Desc	cription		Str	Sar	Sar	B	% 10	¹ 10 ² 10 ³ 10	
0-	SILTY SAND, fine grained sand, plasticity, wet. Between 0.0 m and 0.9 m - conta	aining coal, bl	ack.		\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\			80		BENTONITE
2-	Between 1.5 m and 2.1 m - orang			>>>>>>					■ Senionie	
3-	SAND and GRAVEL, fine to coar coarse gravel, subrounded, trace						80 :		GH_MW_FR8B	
5-	SANDY CLAY, fine grained sand medium plasticity, wet. SANDY SILT, fine grained sand, plasticity, wet.		,		}}}					BENTONITE
6-	Bottom of hole at 6.1 m.			. .				ļį.		
7-										
8-1										
9-										
				NOT Diffe and	rES erentia selec	ition be grain s	twee	n silt a	and clay fraction	s inferred based on plasticity

Line Creek Operations Borehole Logs – Wells for Evaluation

Borehole No: LC_MW_LC1-1A **Teck Coal Limited** Project: LCO Phase 2 Water Treatment Project No: ENW.GENV03056-01 Location: Upper Line Creek Ground Elev: 1642.52 m UTM: 661955.34 E; 5538175.93 N; Z 11 Elk Valley, British Columbia Moisture Content (%) Sample Type SOIL SYMBOL Elevation (m) Soil Depth (m) SC Description Plastic Moisture Liquid Content Limit 20 40 60 80 GRAVEL (FILL) - sandy, fine grained gravel 6.1 1642 - (Gravel - 66%; Sand - 24%; Silt & Clay - 10%) GW - damp 1641 2 1640 9.4 GRAVEL - sandy, some silt, subangular gravel, wet, brown 3 1639 1638 - rounded cobbles to 125 mm diameter 1637 1636 1636 9.7 - (Gravel - 60%; Sand - 26%; Silt & Clay - 14%) mm - fine grained angular to subangular gravel, cobbles to 125 mm diameter (102 | 8.3 auger 1635 8 stem 1634 8.5 Solid 9 - cobbly, trace sand 1633 10 1632 11 9.3 SAND - gravelly, trace silt, subangular to subrounded gravel, well graded, wet to very wet, compact, dark 1631 SW 12 GRAVEL - sandy, trace silt, subangular to subrounded gravel, fine grained sand, well graded, very wet, 1630 compact, dark brown GW 13 1629 - at 13.59 m, intermixed with CLAY - some sand, moist, firm, medium plastic, dark brown 14 CLAY - some silt, some gravel, wet, brown - damp, firm 1628 15 END OF BOREHOLE (15.24 metres) 1627 water - 5.49 metres below ground on December 5, 2021 Monitoring well installed to 13.98 metres Monitoring well diameter: 55 mm 1626 Screened Interval: 10.93 - 13.98 metres below ground 17 020 Slot Size 10/20 Filter Sand 1625 Top of sand: 9.75 metres below ground Top of PVC: 1643.620 masl 18 1624 19 1623 Contractor: Mud Bay Drilling Completion Depth: 15.24 m **TETRA TECH** Equipment Type: TerraSonic 150CC Rotosonic Drill Rig Start Date: 2021 December 3 Logged By: Carl Forkheim Completion Date: 2021 December 4 Reviewed By: Stephan Klump Page 1 of 1

Borehole No: LC_MW_LC1-2A **Teck Coal Limited** Project: LCO Phase 2 Water Treatment Project No: ENW.GENV03056-01 Location: Upper Line Creek Ground Elev: 1645.1 m Elk Valley, British Columbia UTM: 662008.42 E; 5538214.14 N; Z 11 Moisture Content (%) SOIL SYMBOL Sample Type Elevation (m) SPT (N) Soil Depth (m) ■ SPT (N) ■ 40 60 USC ■ Soluble Sulphates (%) ■ Description 2 3 Plastic Moisture Liquid Content Limit Limit 20 40 80 GRAVEL (FILL) - sandy, dry - white GW 61 1644 CLAY - silty, some sand, some gravel, subangular gravel to 20 mm diameter, moist to wet, firm, medium plastic, dark brown CI 1643 18.8 GRAVEL - sandy, some silt, subangular gravel, brown 3 1642 GW - wet 1641 237 75.2 CLAY - some silt, trace gravel, wet, light brown 5 8.2 1640 - at 5.03 m, GRAVEL - sandy, trace silt, trace clay, subrounded to subangular gravel to 50 mm diameter, well graded, very wet, brown CH 1639 - subangular gravel 48 4.3 Dec5/21 **₿**38 Dec. GRAVEL - very fine grained sand, coarse grained angular to 8 102 subangular gravel, wet 1637 GW auger 9 1636 CLAY - silty, gravelly, some sand, subangular to subrounded gravel to 50 mm diameter, moist to wet, firm to stiff, medium CI 16.7 plastic, dark brown to black 1635 SAND - silty, trace clay, trace gravel, fine grained sand, wet, dark brown SM 11 1634 22.6 GRAVEL - some fine grained sand, angular to subangular GW gravel, wet, brown 12 1633 SAND - silty, fine grained sand, wet, brown SM 13 1632 GRAVEL, COBBLES AND SAND - fine grained sand, angular to subangular gravel, wet, dark brown 14 1631 GW 15 1630 CLAY - some angular gravel, damp, light brown - at 15.70 m, GRAVEL - sandy, trace clay, trace silt, 16 1629 subrounded to subangular gravel to 50 mm diameter, well graded, very wet, brown CI - sandy, fine grained sand, wet, dark brown 1628 - at 16.92 m, SAND - silty, trace gravel, trace clay, very wet, compact, dark brown 18 1627 END OF BOREHOLE (18.29 metres) water - 6.73 metres below ground on December 5, 2021 19 Monitoring well installed to 14.67 metres 1626 Monitoring well diameter: 55 mm Screened Interval: 11.62 - 14.67 metres below ground Contractor: Mud Bay Drilling Completion Depth: 18.29 m Equipment Type: TerraSonic 150CC Rotosonic Drill Rig Start Date: 2021 December 3 **TETRA TECH** Logged By: Megan Savage Completion Date: 2021 December 3 Reviewed By: Stephan Klump Page 1 of 2

Borehole No: LC_MW_LC1-2A **Teck Coal Limited** Project: LCO Phase 2 Water Treatment Project No: ENW.GENV03056-01 Location: Upper Line Creek Ground Elev: 1645.1 m Elk Valley, British Columbia UTM: 662008.42 E; 5538214.14 N; Z 11 Moisture Content (%) LC_MW_LC1-2A SOIL SYMBOL Sample Type Elevation (m) SPT (N) Soil Depth (m) NSC ■ SPT (N) ■ 40 60 80 ■ Soluble Sulphates (%) ■ 2 Description 3 Plastic Moisture Liquid Limit Content Limit 20 40 80 1625 020 Slot Size 10/20 Filter Sand Top of sand: 10.67 metres below ground Top of PVC: 1646.135 masl 21 1624 22 1623 23 1622 24 1621 25 1620 26 1619 27 1618 28 1617 29 1616 30 1615 31 1614 32 1613 33 1612 34 1611 35 1610 36 1609 37 1608 38 1607 39 1606 Contractor: Mud Bay Drilling Completion Depth: 18.29 m Equipment Type: TerraSonic 150CC Rotosonic Drill Rig Start Date: 2021 December 3 **TETRA TECH** Logged By: Megan Savage Completion Date: 2021 December 3 Reviewed By: Stephan Klump Page 2 of 2

Borehole No: LC_MW_LC1-3A **Teck Coal Limited** Project: LCO Phase 2 Water Treatment Project No: ENW.GENV03056-01 Location: Upper Line Creek Ground Elev: 1647.03 m UTM: 661989.64 E; 5538247.11 N; Z 11 Elk Valley, British Columbia Moisture Content (%) LC_MW_LC1-3A Sample Type SOIL SYMBOL Elevation (m) Soil Depth (m) SC Description Plastic Moisture Liquid Content Limit 80 20 40 60 GRAVEL (FILL) - sandy, damp 1646 13.1 - dry CLAY - silty, wet, brown 1645 GRAVEL - sandy, some silt and clay, subangular gravel, wet, brown 6.8 - (Gravel - 77%; Sand - 15.1%; Silt & Clay - 7.9%) 3 1644 8.8 1643 5.9 COBBLES AND GRAVEL - fine to coarse grained sand, cobbles to 200 mm diameter, wet 1.1 1642 4.2 1641 GRAVEL - some sand, some silt, some clay, coarse grained angular to subangular gravel, fine grained sand, well graded, wet 1640 7.4 - (Gravel - 51%; Sand - 35.8%; Silt & Clay - 13.2%) Dec56 9 1638 GW 10 1637 Sonic (6.5 1636 12 1635 - cobbles to 125 mm diameter 13 1634 SAND - silty, trace clay, fine grained subangular sand, poorly graded, wet, black 1633 14 SM 15 1632 SILT - clayey, wet, black ML16 1631 CLAY - silty, sandy, some gravel to gravelly, gravel to 20 mm diameter, damp to moist, stiff, low plastic, dark grey to black 17 CL 1630-- some fine grained gravel, coarse grained sand, dry, hard - dry gravel layer GRAVEL - clayey, silty, angular to rounded gravel, well graded, wet, brown 1629 GC 19 1628 Completion Depth: 24.38 m Contractor: Mud Bay Drilling **TETRA TECH** Equipment Type: TerraSonic 150CC Rotosonic Drill Rig Start Date: 2021 December 1 Logged By: Carl Forkheim Completion Date: 2021 December 1 Reviewed By: Stephan Klump Page 1 of 2

Borehole No: LC_MW_LC1-3A **Teck Coal Limited** Project: LCO Phase 2 Water Treatment Project No: ENW.GENV03056-01 Location: Upper Line Creek Ground Elev: 1647.03 m Elk Valley, British Columbia UTM: 661989.64 E; 5538247.11 N; Z 11 Moisture Content (%) LC_MW_LC1-3A Sample Type SOIL SYMBOL Elevation (m) Soil Depth (m) SC Description Plastic Moisture Liquid Limit Content Limit 20 40 60 80 162 GC CLAY - silty, sandy, trace to some gravel, gravel to 20 mm diameter, damp to wet, soft to hard, low plastic, black 21 1626 CL шш - dry, very hard 102 - at 21.80 m, damp to moist, medium plastic, silt pockets, potential precipitates 22 1625 - at 22.71 m, gravel to 50 mm diameter 23 1624 CI 24 1623 END OF BOREHOLE (24.38 metres) water - 7.77 metres below ground on December 5, 2021 25 1622 Monitoring well installed to 13.56 metres Monitoring well diameter: 55 mm Screened Interval: 10.51 - 13.56 metres below ground 26 1621 020 Slot Size 10/20 Filter Sand Top of sand: 9.45 metres below ground Top of PVC: 1647.768 masl 27 1620 28 1619 29 1618 30 1617 31 1616 32 1615 33 1614 34 1613 35 1612 36 1611 37 1610 38 1609 39 1608 Contractor: Mud Bay Drilling Completion Depth: 24.38 m **TETRA TECH** Equipment Type: TerraSonic 150CC Rotosonic Drill Rig Start Date: 2021 December 1 Logged By: Carl Forkheim Completion Date: 2021 December 1 Reviewed By: Stephan Klump Page 2 of 2

Borehole No: LC_MW_WLC-1A **Teck Coal Limited** Project: LCO Phase 2 Water Treatment Project No: ENW.GENV03056-01 Location: West Line Creek Ground Elev: 1503.18 m UTM: 659753.09 E; 5532228.49 N; Z 11 Elk Valley, British Columbia Moisture Content (%) SOIL SYMBOL Sample Type Elevation (m) SPT (N) Soil Depth (m) ■ SPT (N) ■ 40 60 NSC ■ Soluble Sulphates (%) ■ Description 2 3 Plastic Moisture Liquid Limit Content Limit 20 40 80 ΤP TOPSOIL - trace gravel, rootlets, damp, black, (300 mm thick) 1503-GRAVEL - silty, clayey, subangular to rounded gravel, damp, 18.3 1502 35 GM 2 GC 1501 - trace sand, wood chips 3 1500 33 COBBLES AND GRAVEL - some silt, trace fine grained sand, rootlets, angular to subangular fine gravel, damp, dark grey 11.3 1499 - (Gravel - 65%; Sand - 24%; Silt & Clay - 11%) 5 GW 1498 - large boulder 6.5 1497 - trace clay 19.1 CLAY - silty, massive, damp, stiff, brown 1496 20 8 1495 24.6 - 75 mm thick silt laver CI 9 - decreasing silt content 22.5 ШШ 1494 (102)10 1493 - wet 9 SAND - trace silt, fine to coarse grained subrounded to rounded 11 SP sand, poorly graded, damp, brown 1492 - 100 mm thick silty clay band CLAY - trace silt, wet, soft, medium plastic, black 12 1491 SAND - trace to some silt, fine to coarse grained subrounded to rounded sand, damp, brown 13 1490 - 150 mm thick silt layer - damp, brown 14 1489 SW - trace gravel to 150 mm 15 - finer grained sand 1488 - gradual transition to silt and fine grained sand 16 1487 SAND - some gravel, trace silt, subrounded to subangular 1486 gravel to 40 mm diameter, well graded, damp to wet, loose, SW 18 CLAY - silty, some rounded gravel, damp, stiff, low plastic, 1485 CL 19 1484 - gradual transition to gravelly, no visible silt, trace coarse Contractor: Mud Bay Drilling Completion Depth: 48.77 m Equipment Type: TerraSonic 150CC Rotosonic Drill Rig Start Date: 2021 November 27 **TETRA TECH** Logged By: Carl Forkheim Completion Date: 2021 November 27 Reviewed By: Stephan Klump Page 1 of 3

Borehole No: LC_MW_WLC-1A **Teck Coal Limited** Project: LCO Phase 2 Water Treatment Project No: ENW.GENV03056-01 Location: West Line Creek Ground Elev: 1503.18 m Elk Valley, British Columbia UTM: 659753.09 E; 5532228.49 N; Z 11 Moisture Content (%) LC_MW_WLC-1A SOIL SYMBOL Sample Type Elevation (m) SPT (N) Soil Depth (m) NSC ■ SPT (N) ■ 40 60 ■ Soluble Sulphates (%) ■ 2 Description Plastic Moisture Liquid Limit Content Limit 20 40 80 subangular sand, subangular gravel, hard 1483-21 1482 CL 22 - cobbles 75 to 100 mm diameter 1481 - trace silt, fine rounded to angular gravel, dry to damp - silty, some angular gravel, damp, brown 23 1480 GRAVEL - clayey, silty, trace coarse grained sand, fine grained gravel to cobbles, damp, hard, dark grey - cobbles, dry 24 1479 - 200 mm thick silty clay band 25 1478 26 - wet for 900 mm 1477 - 200 mm thick silty clay and gravel layer, compact 27 1476 - pulverized cobble 28 1475 - pulverized cobble 29 - pulverized cobble 1474 30 1473 Sonic (31 1472 GC 32 - some coarse grained sand 147 33 1470 34 1469 - cobbles for 600 mm 35 1468 36 - some clayey silty gravel 1467 37 1466 38 1465 - 460 mm thick silty clay layer 39 1464 Contractor: Mud Bay Drilling Completion Depth: 48.77 m Equipment Type: TerraSonic 150CC Rotosonic Drill Rig Start Date: 2021 November 27 **TETRA TECH** Logged By: Carl Forkheim Completion Date: 2021 November 27 Reviewed By: Stephan Klump Page 2 of 3

Borehole No: LC_MW_WLC-1A **Teck Coal Limited** Project: LCO Phase 2 Water Treatment Project No: ENW.GENV03056-01 Location: West Line Creek Ground Elev: 1503.18 m UTM: 659753.09 E; 5532228.49 N; Z 11 Elk Valley, British Columbia Moisture Content (%) LC_MW_WLC-1A SOIL SYMBOL Sample Type Elevation (m) SPT (N) Soil Depth (m) NSC ■ SPT (N) ■ 40 60 80 ■ Soluble Sulphates (%) ■ 2 3 Description Plastic Moisture Liquid Content Limit Limit 20 40 1463-41 - 600 mm thick band of cobbles to 150 mm diameter 1462 - 600 mm thick silt layer - some clay, trace gravel, damp, hard 42 1461 - gradual transition to more clay and silt content 43 1460 GM Sonic (102 1459 - 900 mm thick layer of increasing silt content, subangular to GM subrounded gravel, moist to wet 45 1458 - cobbles to 150 mm diameter 46 1457 47 - 600 mm thick clayey layer - moist, high plastic 1456 BEDROCK - pulverized, dry 48 - weathered, hard clay EDROCK 1455 END OF BOREHOLE (48.77 metres) 49 1454 water - dry on December 14, 2021 Monitoring well installed to 47.24 metres Monitoring well diameter: 55 mm 50 1453 Screened Interval: 44.19 - 47.24 metres below ground 020 Slot Size 10/20 Filter Sand 51 Top of sand: 43.28 metres below ground Top of PVC: 1504.107 masl 1452 52 1451 53 1450 54 1449 55 1448 56 1447 57 1446 58 1445 59 1444 Contractor: Mud Bay Drilling Completion Depth: 48.77 m **TETRA TECH** Equipment Type: TerraSonic 150CC Rotosonic Drill Rig Start Date: 2021 November 27 Logged By: Carl Forkheim Completion Date: 2021 November 27 Reviewed By: Stephan Klump Page 3 of 3

Borehole No: LC_MW_WLC-2A **Teck Coal Limited** Project: LCO Phase 2 Water Treatment Project No: ENW.GENV03056-01 Location: West Line Creek Ground Elev: 1488.33 m UTM: 659868.79 E; 5532370.14 N; Z 11 Elk Valley, British Columbia Moisture Content (%) SOIL SYMBOL Sample Type Elevation (m) SPT (N) Soil Depth (m) ■ SPT (N) ■ 40 60 NSC Description Plastic Moisture Liquid Limit Content Limit 20 40 80 TOPSOIL - rootlets, damp, (60 mm thick) TP 1488 SILT - some subangular gravel to 75 mm diameter, trace fine grained sand, trace clay, damp, soft, low plastic, brown 13.4 - (Gravel - 8%; Sand - 32%; Silt - 45%; Clay - 15%) 1487 ML 21 14.8 2 - increasing clayey gravel content 1486 18.6 GRAVEL - clayey, silty, sandy, trace cobbles, angular to 3 rounded gravel, damp 1485 - cobbles to 125 mm diameter шш 12.6 - at 4.11 m, CLAY - silty, gravelly, some sand, subangular GC 1484 gravel to 40 mm diameter, moist, low to medium plastic, GM 9.9 Dec**[**]/21 - (Gravel - 41%; Sand - 35.9%; Silt & Clay - 23.1%) - 300 mm thick gravelly clay layer - trace coarse grained 6.9 sand, low plastic 1482 - dry, increasing hardness MUDSTONE (BEDROCK) - weathered, trace fine grained sandy layers 6.4 1481 EDROCK - dry, hard, black 8 1480 9.7 9 END OF BOREHOLE (9.14 metres) 1479 water - 4.80 metres below on December 14, 2021 10 Monitoring well installed to 5.94 metres Monitoring well diameter: 55 mm 1478 Screened Interval: 4.42 - 5.94 metres below ground 020 Slot Size 11 10/20 Filter Sand 1477 Top of sand: 3.51 metres below ground Top of PVC: 1489.474 masl 12 1476 13 1475 14 1474 15 1473 16 1472 17 1471 18 1470 19 1469 Completion Depth: 9.14 m Contractor: Mud Bay Drilling **TETRA TECH** Equipment Type: TerraSonic 150CC Rotosonic Drill Rig Start Date: 2021 November 30 Logged By: Carl Forkheim Completion Date: 2021 November 30 Reviewed By: Stephan Klump Page 1 of 1

Borehole No: LC_MW_WLC-3A **Teck Coal Limited** Project: LCO Phase 2 Water Treatment Project No: ENW.GENV03056-01 Location: West Line Creek Ground Elev: 1511.42 m UTM: 659582.96 E; 5532281.38 N; Z 11 Elk Valley, British Columbia Moisture Content (%) LC_MW_WLC-3A SOIL SYMBOL Sample Type Elevation (m) SPT (N) Soil Depth (m) ■ SPT (N) ■ 40 60 NSC Description Plastic Moisture Liquid Limit Content Limit 20 40 80 SAND AND GRAVEL - rootlets, (300 mm thick) SW 1511 GRAVEL - sandy, some silt, boulders, angular to subangular GW gravel, medium to coarse grained sand, well graded, grey to 5.1 1510-- (Gravel - 66%; Sand - 25%; Silt & Clay - 9%) 1509 23.2 64 3 1508 1507 - some clay GW 26 18.5 1506 51 12.8 - no visible silt or boulders 1505 - some silt, boulders 7.2 1504 12 8 - 200 mm thick silt layer - some gravel, damp, brown 1503 9 22.7 ШШ - (Gravel - 10%; Sand - 26%; Silt & Clay - 64%) 29 1502 SAND - trace silt, fine grained sand, damp, brown Sonic (1501 28 11 1500 SP - 200 mm thick wet layer 12 1499 13 1498 14 - 150 mm thick dry layer 1497 - 150 mm thick wet, gravel, sand and silt layer CL CLAY AND SAND - gravelly, coarse grained sand, angular 15 gravel, moist, dense, low to medium plastic, black 1496 cobbles to 125 mm diameter СН CLAY - trace silt to silty, gravelly, dry to moist, hard, high 16 plastic, dark grey to black 1495 GRAVEL - sandy, silty, angular to subangular, damp, brown 1494 18 GM - pulverized limestone and dolostone, cobbles, free water 1493 19 1492 Contractor: Mud Bay Drilling Completion Depth: 47.85 m Equipment Type: TerraSonic 150CC Rotosonic Drill Rig Start Date: 2021 November 23 **TETRA TECH** Logged By: Carl Forkheim Completion Date: 2021 November 23 Reviewed By: Stephan Klump Page 1 of 3

Borehole No: LC_MW_WLC-3A **Teck Coal Limited** Project: LCO Phase 2 Water Treatment Project No: ENW.GENV03056-01 Location: West Line Creek Ground Elev: 1511.42 m UTM: 659582.96 E; 5532281.38 N; Z 11 Elk Valley, British Columbia Moisture Content (%) LC_MW_WLC-3A SOIL SYMBOL Sample Type Elevation (m) SPT (N) Soil Depth (m) ■ SPT (N) ■ 40 60 NSC Description Plastic Moisture Liquid Limit Content Limit 20 40 80 - silty, clayey, cobbly, no visible sand, angular to subangular 1491 gravel, moist, dense 21 1490-22 1489 23 1488 24 GM 1487 - 300 mm thick sand layer - trace subangular gravel, coarse 25 1486 - 900 mm thick clayey, silty layer - trace coarse grained sand, 26 1485 27 1484 - 600 mm thick sandy layer, some clay, some silt, trace cobbles 28 1483 No recovery 29 1482 30 Sonic (1481 31 1480 32 SAND - trace fine grained angular to subangular gravel, 1479 medium grained sand 33 - at 33.07 m, CLAY - silty, some sand, some gravel, 1478 subrounded to subangular gravel to 50 mm diameter, moist, firm, medium plastic, brown 34 - at 33.38 m, gravelly, subangular to subrounded gravel to 60 1477 SP 35 - 300 mm thick dry zone 1476 36 1475 Dec 14/21 GRAVEL - clayey, some sand and silt, angular gravel, damp GC 39 1472 - 600 mm thick sand layer - coarse grained angular sand, Completion Depth: 47.85 m Contractor: Mud Bay Drilling Equipment Type: TerraSonic 150CC Rotosonic Drill Rig Start Date: 2021 November 23 **TETRA TECH** Logged By: Carl Forkheim Completion Date: 2021 November 23 Reviewed By: Stephan Klump Page 2 of 3

Borehole No: LC_MW_WLC-3A **Teck Coal Limited** Project: LCO Phase 2 Water Treatment Project No: ENW.GENV03056-01 Location: West Line Creek Ground Elev: 1511.42 m UTM: 659582.96 E; 5532281.38 N; Z 11 Elk Valley, British Columbia Moisture Content (%) LC_MW_WLC-3A SOIL SYMBOL Sample Type Elevation (m) SPT (N) Soil Depth (m) NSC ■ SPT (N) ■ 40 60 80 Description Plastic Moisture Liquid Limit Content Limit 20 40 80 moist GC 41 CLAY - some sand, some gravel, some rounded cobbles, damp to moist, very stiff, low plastic, black 1470 CL 1469 GRAVEL - sandy, silty, clayey, angular gravel, damp, brown, iron inclusions 43 mm 1468 (102 - hard GM Sonic (1467 45 1466 46 CLAY - trace gravel, hard, dark grey 1465 CL 47 - weathered bedrock inclusions 1464 48 END OF BOREHOLE (47.85 metres) water - 37.43 metres below ground on December 14, 2021 1463 Monitoring well installed to 45.72 metres Monitoring well diameter: 55 mm 49 Screened Interval: 42.67 - 45.72 metres below ground 1462 020 Slot Size 50 10/20 Filter Sand Top of sand: 42.06 metres below ground 1461 Top of PVC: 1511.415 masl 51 1460 52 1459 53 1458 54 1457 55 1456 56 1455 57 1454 58 1453 59 1452 Contractor: Mud Bay Drilling Completion Depth: 47.85 m **TETRA TECH** Equipment Type: TerraSonic 150CC Rotosonic Drill Rig Start Date: 2021 November 23 Logged By: Carl Forkheim Completion Date: 2021 November 23 Reviewed By: Stephan Klump Page 3 of 3

			Client Teck Coal Limited							Boreho	le No.	: RG_BH	_LCA
(•)	SNC+LAVA	LIN	Regiona	l Grou	cation indwat		torin	g -		ı	PAGE	1 OF 4	
Drilling Boreh	Contractor JR Drilling Method Dual Rotary Dial. (m) 0.18 Ottled Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev Northing: n/a	ev. (m)	n/a TBC TBC)				Project Number: Borehole Logged Date Drilled: Log Typed By:	Ву:	683032 SE 2021 08 10 VL	
Depth in Metres	Drilling Legend Sample Interval TYTY Air Rotary	Water/NA ▼ Water Le ▽ Water Le • NAPL ◇ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	•	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)		Solid PVC Slotted PVC Jame 1: RG_N	IW_LC4A
	Soil Desc	ription		Str	Sal	Saı	B	1%	10 ¹	10 ² 10 ³ 10 ⁴			
- 1-	SAND and GRAVEL, fine to coars trace silt, dark brown, damp. SAND, fine to medium grained, tra loose, dry.		/										
- - - -	Between 1.5 m and 1.8 m - contain SAND and GRAVEL, fine to coars												
3	At 4.9 m - dark brown, damp. At 5.8 m - moist. At 6.4 m - moist to wet.		and, line to										- BENTONITE
9-10-	Between 9.4 m and 10.1 m - conta	es.	NOT Cas Ben Cas 0.10	ES ing: 0 tonite: ing: 2: 0 slot	– 37.3 r : 0 – 7.1 -inch Soc size; So	m; S m; S hed	cree Sanc ule 4 Pack	en Ir dd Pa 440 P k: 10	nterval: 37.3 – 3 ack: 36.9 – 38.9 VC; Screens: 2 0/20 Frac Sand	88.9 m; 0 m 2-inch \$	Total Dep	th: 38.9 m	

	CRIC. T ATTA	TINI	Client Teck Coal Limited							Boreho	le No	. : RG_E	BH_LCA
?))	SNC+LAVA	LIN	Regional	Grou	cation ndwat e Cree	er Monii k	torin	g -			PAGE	2 OF 4	4
Drilling Boreho	g Contractor JR Drilling g Method Dual Rotary ole Dia. (m) 0.18 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev. Northing: n/a		n/a TBD TBD East					Project Number: Borehole Logged Date Drilled: Log Typed By:	Ву:	683032 SE 2021 08 VL	10
Depth in Metres	Drilling Legend Sample Interval ▼*▼*▼ Air Rotary	Water/NA ▼ Water Lev □ Water Lev • NAPL □ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	•	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Well	Solid PVC Slotted PV0 Name 1: R0	C G_MW_LC4A
De	Soil Desc	cription		Stra	Sam	Sam	Blo	₽ 8	0 ¹	10 ² 10 ³ 10 ⁴			
13 14 15 16 17 18 18 19 18 19 18 19 18 19 18 19 18 19 18 18	SAND and GRAVEL, fine to coar coarse gravel, trace silt, brown, d	rse grained sa dry. (continued	and, fine to										—— BENTONITE
NOTES Casing: 0 – 37.3 m; Screen Interval: 37.3 – Bentonite: 0 – 7.1 m; Sand Pack: 36.9 – 38 Casing: 2-inch Schedule 40 PVC; Screens 0.100 slot size; Sand Pack: 10/20 Frac Sar										38.9 m 9 m 2-inch	; Total D	epth: 38.9 m e 40 PVC,	

			Client Teck Coal Limited						Boreho	ole No. : RG_BH_LCA
()	SNC+LAVA	LIN	Regional	Lo	ocation		orino			PAGE 3 OF 4
Drilling	Contractor JR Drilling		Date Monitored		ne Cre n/a		oring	-	Project Number:	
Drilling Boreho	Method Dual Rotary lle Dia. (m) 0.18 lotted Pipe Dia. (m) 0.05/0.05		Ground Surface Ele Top of Casing Elev. Northing: n/a		TBD TBD				Borehole Logged Date Drilled: Log Typed By:	
Depth in Metres	Drilling Legend Sample Interval TYYY Air Rotary	Water/NA ▼ Water Lev ▽ Water Lev ♠ NAPL ◇ NAPL	vel 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: RG_MW_LC4A
۵	Soil Desc	cription		Stra	Sar	Sar	B	% 10	0 ¹ 10 ² 10 ³ 10	4
23-23-23-23-23-23-23-23-23-23-23-23-23-2	BEDROCK, shale, grey, dry. (conditions) At 26.5 m - dark grey. At 27.0 m - light grey. Between 29.0 m and 29.6 m - dark At 29.6 m - light grey.									BENTONITE
				NOT Cas Ben Cas 0.10	TES ing: 0 tonite: ing: 2- 10 slot	– 37.3 r 0 – 7.1 inch Sc size; Sa	m; S m; s hed and	creen Sand ule 4(Pack:	Interval: 37.3 – Pack: 36.9 – 38.) PVC; Screens: 10/20 Frac San	38.9 m; Total Depth: 38.9 m 9 m 2-inch Schedule 40 PVC, d

	CRIC T ATTA	TTNI	Client Teck Coal Limited							Boreho	le No.	: RG_E	BH_LCA	
?))	SNC+LAVA	LIN	Regional (Groun	cation dwate e Cree		ring	-		ı	PAGE	4 OF 4	1	
Drilling Boreho	g Contractor JR Drilling J Method Dual Rotary ble Dia. (m) 0.18 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev. Northing: n/a	v. (m)	n/a TBD TBD	ı				Project Number: Borehole Logged Date Drilled: Log Typed By:	By:	683032 SE 2021 08 VL	10	
Depth in Metres	Drilling Legend Sample Interval ▼▼▼ Air Rotary	Water/NA ▼ Water Le ⊽ Water Le • NAPL ○ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	Recovery	•	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	s	Solid PVC Slotted PVC	C G_MW_LC4#	Ą
	Soil Desc	ription		Stra	Sar Cor	Sar	В	~	0 ¹	10² 10³ 10⁴				
33-33-33-33-33-33-33-33-33-33-33-33-33-	BEDROCK, shale, grey, dry. (conditions) Between 32.0 m and 32.3 m - dark At 33.8 m - dark grey. At 34.1 m - light grey. At 38.1 m - light tan.												RG_MW_LC	
- 40				NOT Cas Ben Cas 0.10	ES ing: 0 tonite: ing: 2- 0 slot	– 37.3 r 0 – 7.1 inch Sc size; Sa	m; S m; S hedi	creei Sand ule 4 Pack	n lı I P 0 F :: 1	nterval: 37.3 – 3 ack: 36.9 – 38.9 PVC; Screens: 2 0/20 Frac Sand	88.9 m;) m 2-inch S	Total D	epth: 38. e 40 PVC	9 m Ç,

			Client Teck Coal Limited							Boreho	le No.	: RG_BH_LCB
(\$)	SNC+LAVA	LIN	Regiona	l Groui	cation ndwate ne Cre	er Monite	oring	ı -			PAGE	1 OF 1
Drilling Boreh	g Contractor JR Drilling g Method Dual Rotary ole Dia. (m) 0.18 Slotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface E Top of Casing Ele Northing: n/a	lev. (m)	n/a TBD TBD)				Project Number: Borehole Logged Date Drilled: Log Typed By:	Ву:	683032 SE 2021 08 13 VL
Depth in Metres	Drilling Legend Sample Interval ▼▼▼▼ Air Rotary	Water/NA ▼ Water Le □ Water Le • NAPL □ NAPL		 Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	•	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	s	iolid PVC ilotted PVC ame 1: RG_MW_LC4B
ď	Soil Des	cription		Stra	San	San	Blo	₩ %	0 ¹	10 ² 10 ³ 10 ⁴		
0-	SAND and GRAVEL, fine to coal coarse gravel, trace silt, brown, coanse gravel, trace silt, brown, coanse grained, to brown, loose, dry.	dry.										
2-	SAND and GRAVEL, fine to coar coarse gravel, trace silt, containing	and, fine to ght brown, dry.									BENTONITE	
4-												
6-	, ,								· · · · · · · · · · · · · · · · · · ·			
7-	At 6.4 m - damp to moist.											RG_MW_LCB
9-10-	Bottom of hole at 8.4 m.				<u> ▼`</u> ▼ <u>`</u> ▼					: : :	L <u>/</u> _/	BENTONITE
	NOTES Casing: 0 – 8.1 m; Screen Interval: 6.6 – 8.1 m; Total Depth: 8.1 m Bentonite: 0 – 6.2 m; Sand Pack: 6.2 – 8.1 m; Bentonite: 8.1 - 8.4 m Casing: 2-inch Schedule 40 PVC; Screens: 2-inch Schedule 40 PVC, 0.100 slot size; Sand Pack: 10/20 Frac Sand											

	CRIC. I ANIA	TINI	Te	eck C	Client oal Lin	nited			Borehol	e No. : LC_BH_ERX1A
 7)	SNC·LAVA		Regional		cation ndwate	r Monito	oring			PAGE 1 OF 3
Drillin Boreh	g Contractor Mud Bay Drilling Co. Ltd. g Method Vibratory Sonic ole Dia. (m) 0.15 Slotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Electory of Casing Electory Northing: 5526826.8	. (m̀) ´	n/a).869 ting: 6550)35.57	7 4	Project Number: Borehole Logged Date Drilled: Log Typed By:	686625 By: AH 2021 11 18 VL
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Lev ∇ Water Lev • NAPL ∴ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: LC_MW_ERX1A
Dept	Soil Des	cription		Stratic	Samp Core F	Samp	Blow	-0	0 ¹ 10 ² 10 ³ 10	
3- 1- 2- 3- 3- 4- 4- 8- 8- 8-	GRAVELLY SAND (TILL), fine to coarse gravel, subangular to sub brown, medium dense, low plast damp. Between 0.0 m and 0.6 m - controxidation. Between 2.1 m and 3.0 m - bould between 3.0 m and 4.6 m - dense bedded. BOULDER, aphanitic, moderate bedded. SANDY GRAVEL (TILL), fine to fine to medium grained sand, so dense, low plasticity, damp. Between 9.1 m and 9.4 m - bould subanal sand, fine to medians between the plasticity damp.	der. coarse gravel, soarse gravel,	e clay, trace silt, g cobbles, naterial, orange ed, thickly subangular, silt, grey-brown,					80 80 90 90 90 90 90 90 90 90 90 90 90 90 90		BENTONITE
2777				NOT	ES					
j S										

	A CRIO F ATTA	T TR T	Те		Client oal Lin	nited	Borehole No. : LC_BH_ERX1A				
") SNC+LAVA	LIN	Regional		cation dwate	r Monite	oring		PAGE 2 OF 3		
illin oreh	ng Contractor ng Method Vibratory Sonic hole Dia. (m) 0.15 Slotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5526826.8	d Surface Elev. (m) 1300.869 f Casing Elev. (m) n/a)35.574		Project Number: Borehole Logged Date Drilled: Log Typed By:	686625 By: AH 2021 11 18 VL	
Deptn in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Lev ∇ Water Lev • NAPL • NAPL	vel 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: LC_MW_ERX1A	
<u>ڏ</u>	Soil Des	cription		Stra	Sar	Sar	ă	% 10¹	10² 10³ 10⁴		
111	Between 9.8 m and 10.1 m - light prown oxid SILTY GRAVEL (TILL), fine to coarse gravel dense, low plasticity, damp. (continued) Between 11.3 m and 11.6 m - light orange oxid size oxid s		zation. subangular, d, dark brown, dization.							BENTONITE	
117-	BEDROCK, shale, dark grey, we	ak.		NOT	ES					LC_MW_ERX1.	

			_		Client	<u> </u>			Borehole	e No. : LC_BH_ERX1A
((•)	SNC+LAVA	LIN		Lo	oal Lin					
			Regional	Grour		r Monito	oring			PAGE 3 OF 3
Drilling Boreho	Contractor Mud Bay Drilling Co. Ltd. Method Vibratory Sonic ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5526826.	. (m) ´	n/a).869 ing: 6550	35.57	74	Project Number: Borehole Logged Date Drilled: Log Typed By:	686625 By: AH 2021 11 18 VL
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Lev ▼ Water Lev • NAPL • NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: LC_MW_ERX1A
۵	Soil Des	cription		Stra	Sar	Sar	Bi	% F	10 ¹ 10 ² 10 ³ 10 ⁴	
20-	BEDROCK, shale, dark grey, we	eak. <i>(continued</i>	d)							SAND
	Bottom of hole at 21.2 m.									
23-24-25-26-26-26-26-26-26-26-26-26-26-26-26-26-										
27										
20- 20-										
MANGE: AH 2022 01 19				NOT	ES					
DACC: A										

		TTNT	Te		Client oal Lin	nited			Borehole	No.: LC_BH_ERX1B		
 ?))	SNC+LAVA	LIN	Regional		cation	r Monito	oring		PAGE 1 OF 2			
Drilling Boreh	g Contractor Mud Bay Drilling Co. Ltd. g Method Vibratory Sonic ole Dia. (m) 0.15 Slotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5526832.0	(m) ´	n/a).856 ting: 6550)34.78	18	Project Number: Borehole Logged Date Drilled: Log Typed By:	686625 By: AH 2021 11 19 VL		
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	▼ Water Lev ▼ Water Lev • NAPL • NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: LC_MW_ERX1B		
- 0-	Soil Des	•		KXZXX	s o	S		% 1(0 ¹ 10 ² 10 ³ 10 ⁴			
2-		orounded, som um dense, lov ains organic m	ne clay, trace silt, v plasticity, naterial.					70		BENTONITE		
7-10-	SILTY GRAVEL (TILL), fine to or some clay, trace sand, fine to me	me clay, trace	silt, grey-brown,	NOT	ES			100				

	CRIC. I ANIA	TINI	Te	eck C	Client oal Lir	nited			Borehole	No. : LC_BH_ERX1B
 7 //	SNC+LAVA		Regional		cation ndwate	er Monito	oring			PAGE 2 OF 2
Drilling Boreh	g Contractor Mud Bay Drilling Co. Ltd. g Method Vibratory Sonic ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5526832.0	(m)	n/a	0.856 ting: 6550	34.78	38	Project Number: Borehole Logged Date Drilled: Log Typed By:	686625 By: AH 2021 11 19 VL
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Lev ∇ Water Lev ♠ NAPL ◇ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: LC_MW_ERX1B
Dep	Soil Des	cription		Stratic	Samp Core I	Samp	Blow	10 ¹ Rec	10² 10³ 10⁴	
11	Between 9.8 m and 11.6 m - ora SILTY GRAVEL (TILL), fine to consome clay, trace sand, fine to midense, low plasticity, damp. (consequence)	oarse gravel, s edium grained	subangular.					80		BENTONITE LC_MW_ERX1B SAND
14-	BEDROCK, shale, dark grey, we	eak.								BENTONITE
15-	Bottom of hole at 14.6 m.									
16										
17-										
19 19 1 1 1 1 1 1 1 1										
20-			г							
27. 71. Z.O.Z.				NOT	ES					

	CD10 T 4774		1	(Feck C	Client oal Lin	nited	Borehole No. : LC_BH_SRD1A			
!))	SNC+LAVA	Regional		cation ndwate	r Monite	oring		PAGE 1 OF 4		
Orilling Contractor JR Drilling Orilling Method Dual Rotary Borehole Dia. (m) 0.18 Pipe/Slotted Pipe Dia. (m) 0.05/0.05			Date Monitored Ground Surface E Top of Casing Elev Northing: 5526817	face Elev. (m) 1202.459 ng Elev. (m) 1203.245			603.698		Project Number: Borehole Logged Date Drilled: Log Typed By:	631283 By: AH 2021 08 24 VL
Depth in Metres	Drilling Legend Sample Interval TYYY Air Rotary	Water/NA ▼ Water Lev ∇ Water Lev • NAPL NAPL		 Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: LC_MW_SRD1A
ñ	Soil Desc	cription		Stra	San	San	Blo	₩ 10 ¹	10 ² 10 ³ 10 ⁴	П
0-	SILTY SAND, fine grained sand, subrounded, brown, loose, damp	trace gravel,	fine to coarse,							
1-	SAND and GRAVEL, fine grained subrounded, trace silt, grey, loose	d sand, fine to e, dry.	o coarse gravel,							
2-	Between 1.5 m and 3.0 m - less t	fine grained s	and, less silt.							
3-										
4	Between 4.0 m and 4.6 m - less s	sand, less silt	, damp.							
5-	GRAVEL, fine to coarse, subrour grey, loose, dry.	nded, trace sa	and, fine grained,	0						BENTONITE
6-	SAND and GRAVEL, fine grained subrounded, brown, loose, dry.	d sand, fine to	o coarse gravel,							
7-	At 7.0 m - moist.									
8	GRAVEL, coarse, subrounded, g	rey, loose, dr	y.					:		
9	SAND and GRAVEL, fine to med coarse gravel, subrounded, brow									
J				NOT	ΓES					

SINC + LAVALIN Location Regional Groundwater Monitoring PAGE 2 O					
Regional Groundwater Monitoring PAGE 2 O Similing Contractor JR Drilling Co	Borehole No. : LC_BH_SRD1A PAGE 2 OF 4				
Filling Method Dual Rotary Ground Surface Elev (m) 10.18 Top of Casing Elev (m) 10.050.05 Top of Ca					
Water Level 2 Water Level 2 NAPL NAPL Soil Description Well Name 1 Well Name 1	Borehole Logged By: AH Date Drilled: 2021 08 24				
Soll Description SAND and GRAVEL, fine to medium grained sand, fine to coarse gravel, subrounded, brown, loose, wet. (continued) GRAVEL, fine to coarse, subrounded, trace sand, coarse grained, poorly graded, brown, loose, wet. SAND and GRAVEL, fine to coarse grained sand, fine to coarse gravel, subrounded to subangular, trace silt, well graded, dark grey, wet. SAND and GRAVEL, fine to coarse grained sand, fine to coarse gravel, subrounded to subangular, trace silt, well graded, dark grey, wet. SAND and GRAVEL, fine to coarse grained sand, fine to coarse gravel, subrounded to subangular, silty, well graded, brown, loose wet. SAND and GRAVEL, fine to coarse grained sand, fine to coarse gravel, subrounded to subangular, silty, well graded, brown, loose wet. SANDY CLAY, assumed to be sandy clay, no returns.					
SAND and GRAVEL, fine to coarse grained sand, fine to coarse gravel, subrounded, brown, loose, wet. SAND and GRAVEL, fine to coarse grained sand, fine to coarse gravel, subrounded to subangular, trace silt, well graded, dark grey, wet. SAND and GRAVEL, fine to coarse grained sand, fine to coarse gravel, subrounded to subangular, trace silt, well graded, dark grey, wet. SAND and GRAVEL, fine to coarse grained sand, fine to coarse gravel, subrounded to subangular, trace silt, well graded, brown, loose wet. SAND and GRAVEL, fine to coarse grained sand, fine to coarse gravel, subrounded to subangular, silty, well graded, brown, loose wet. SANDY CLAY, assumed to be sandy clay, no returns.					
brown, loose wet. SANDY CLAY, assumed to be sandy clay, no returns.	BENTONITE				
NOTES					

					<u>N</u> H				Г		
	CRIC. T ATA	TTRI	т		Client oal Lin	nited	Borehole No. : LC_BH_SRD1A				
V))	SNC+LAVA		Regional		cation ndwate	r Monito	oring		PAGE 3 OF 4		
Orilling Boreho	Contractor JR Drilling Method Dual Rotary le Dia. (m) 0.18 otted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5526817.	Surface Elev. (m) asing Elev. (m)		2.459 3.245 ing: 6536	459 245 ng: 653603.698		Project Number: Borehole Logged Date Drilled: Log Typed By:	631283 By: AH 2021 08 24 VL	
Depth in Metres	Drilling Legend Sample Interval TTT	Water/NA ▼ Water Lev □ Water Lev ♠ NAPL ○ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: LC_MW_SRD1A	
۵	Soil Desc	cription		Stra	San	San	B	% 101	10² 10³ 10⁴		
21	SANDY CLAY, assumed to be sa (continued) SANDY CLAY, fine grained sand brown, loose, wet. Between 22.9 m and 24.4 m - no	, some silt, m									
24	SILTY CLAY, trace sand, fine gradark brown, wet. Between 25.9 m and 27.4 m - no		edium plasticity,							BENTONITE	
29-	SILTY CLAY, dark brown, soft.			NOT	ES					P. SAND	

					<u> </u>						
	CRIC. T ATTA	TTNT	Tec		Client Dal Lin	nited			Borehole	No. : LC_BH_SRD1A	
7))	SNC+LAVA		Regional G		cation dwate	r Monito	oring		PAGE 4 OF 4		
Drilling N Borehole	Orilling Contractor JR Drilling Orilling Method Dual Rotary Sorehole Dia. (m) 0.18 Oipe/Slotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Elev Top of Casing Elev. (Northing: 5526817.66	e Elev. (m) 1202.459 Elev. (m) 1203.245 817.666 Easting: 653603.698		Project Number: Borehole Logged Date Drilled: Log Typed By:	631283 By: AH 2021 08 24 VL				
Depth in Metres	Drilling Legend Sample Interval Air Rotary	Water/NA ▼ Water Lev □ Water Lev • NAPL □ NAPL	I	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	indicated scale	Solid PVC Slotted PVC Well Name 1: LC_MW_SRD1A	
ă	Soil Des	cription		Stra	San Cor	San	Blc	₩ 10	¹ 10² 10³ 10⁴		
31-33-33-33-33-33-33-33-33-33-33-33-33-3	BEDROCK, shale, black, compe Between 36.6 m and 36.9 m - we	e, dark brown,	soft, damp.							LC_MW_SRD1A SAND BENTONITE	
38-				NOT	ES						

11)	CRIC. T ATTA	TENT	т	eck C	lient oal Lin	nited			Borehole No. : LC_BH_SRD1B			
<i>((</i>)	SNC+LAVA		Regional		cation idwate	r Monite	oring		PAGE 1 OF 2			
rilling oreho	g Contractor JR Drilling J Method Dual Rotary ble Dia. (m) 0.18 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5526819	. (m) ´	1203	2.469 3.159 ing: 6536	601.31	4	Project Number: Borehole Logged Date Drilled: Log Typed By:	Borehole Logged By: SE Date Drilled: 2021 08 16		
Depth in Metres	Drilling Legend Sample Interval ▼▼▼▼ Air Rotary	Water/NA ▼ Water Lev ✓ Water Lev ◆ NAPL ◇ NAPL	/el 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count		Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: LC_MW_SRD1B		
בֿ	Soil Desc	ription		Stra	Sar	Sar	ĕ	% 1(0 ¹ 10 ² 10 ³ 10 ⁴	П		
1-1-1-1	SILTY SAND, fine grained sand, to brown, loose, dry. SAND and GRAVEL, fine to coars coarse gravel, subangular, dry.		/									
3-	GRAVEL, fine to coarse, trace sa containing cobbles, dry.	nd, coarse gr	rained,									
5	SAND and GRAVEL, fine to coars	se grained sa	and fine to							BENTONITE		
6 -	coarse gravel, brown, dry to damp At 6.9 m - damp.											
8	SAND and GRAVEL, fine to coars coarse gravel, containing cobbles At 8.7 m - dry.									SAND LC_MW_SRD1B		
Ė ₀				NOT	ES			<u> </u>				
				.101	_0							

	CNICAT AND	TTNT	те	eck C	Client oal Lin	nited			Borehole	e No. : LC_BH_SRD1B
7/)	SNC+LAVA		Regional		cation ndwate	r Monito	oring			PAGE 2 OF 2
Drilling Boreho	g Contractor JR Drilling g Method Dual Rotary ole Dia. (m) 0.18 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5526819.6	. (m) ´	1203	2.469 3.159 ting: 6536	601.31	4	Project Number: Borehole Logged Date Drilled: Log Typed By:	631283 By: SE 2021 08 16 VL
Depth in Metres	Drilling Legend Sample Interval ▼▼▼▼ Air Rotary	Water/NA ▼ Water Lev ∇ Water Lev ♠ NAPL ♦ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: LC_MW_SRD1B
ă	Soil Des	cription		Stra	San	San	BIG	% 101	10 ² 10 ³ 10 ⁴	
10	GRAVEL, moist.									SAND
F 11-	Bottom of hole at 11.0 m.			102	,			I;		
12-										
13-										
14-										
15-										
16-										
17-										
18-										
19-										
20										
				NOT	ES					

	CDIO T ATZA		Те		Client oal Lin				Borehole	No. : LC_BH_SRD2A	
V)	SNC+LAVA	LIN	Regional		cation	r Monite	oring		PAGE 1 OF 3		
rilling Soreho	Contractor Mud Bay Drilling Co. Ltd. Method Vibratory Sonic ole Dia. (m) 0.15 oltted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5525984.2	(m) ´) n/a				Project Number: 686625 Borehole Logged By: AH Date Drilled: 2021 11 20 Log Typed By: VL		
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Lev ▽ Water Lev ♠ NAPL ◇ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	indicated scale	Solid PVC Slotted PVC Well Name 1: LC_MW_SRD2A	
۵	Soil Desc	cription		Stra	Sar	Sar	ă	% 10 ¹	10 ² 10 ³ 10 ⁴		
0-	SILTY SAND, fine grained sand, plasticity, damp, contains rootlets	trace clay, br	own, loose, low					70			
1-	SAND, fine to medium grained, to poorly graded, brown, loose, dam	race gravel, fi np.	ne, subrounded,								
2-	GRAVEL, fine to coarse, subrour coarse grained, brown, loose, da (75-150 mm), subrounded.										
3-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1	Between 3.7 m and 4.0 m - some	o cilt						70			
4-1111111111111111111111111111111111111	between 3.7 III and 4.0 III - Some	s Siit.									
5								50		BENTONITE	
7-	At 6.1 m - wet. Between 6.1 m and 9.1 m - trace	silt.									
8-1											
9	Between 9.1 m and 10.7 m - con	taining cobble	es.					50			
10					\bigotimes						
			Ţ	NOT	ES						

Soil Description GRAVEL, fine to coarse, subrounded, some sand, fine to coarse grained, brown, loose, damp, containing cobbles (75-150 mm), subrounded. (continued) GRAVELLY SILT, fine to coarse gravel, subrounded, some sand, fine grained, trace clay, brown, dense, low plasticity, damp. SILTY CLAY, some sand, fine to coarse grained, dark brown, medium dense, medium plasticity, damp, laminated 1-2 mm layers of silt and day.	M CRICAT ATIA	TINT	Tec	Cli ck Coa	ent al Lin	nited			Borehole	No.: LC_BH_SRD2A
Inig Method Vibratory Sonic Short Description Water/NAPL Levels Short Level 2 Short Level 3 Short Level 2 Short L	JINC LAVA		Regional G			r Monite	oring			PAGE 2 OF 3
Sample interval Water Levels Water Level 2 NAPL NA	ling Method Vibratory Sonic ehole Dia. (m) 0.15		Ground Surface Elev. Top of Casing Elev. (m) ´	1197 n/a		384.63		Borehole Logged Date Drilled: Log Typed By:	By: AH 2021 11 20
GRAVEL, fine to coarse, subrounded, some sand, fine to coarse grained, brown, losse, damp, containing cobbles (75-190 mm), subrounded. (continued) GRAVELLY SILT, fine to coarse gravel, subrounded, some sand, fine grained, trace clay, brown, dense, low plasticity, damp, laminated 1-2 mm layers of silt and clay.	Sample Interval	▼ Water Lev		tigraphy Plot	րle Interval e Run	ple Number	w Count	•	indicated scale Reading outside indicated scale Soil Vapour	
GRAVELLY SILT, fine to coarse gravel, subrounded, some sand, fine grained, trace clay, brown, dense, low plasticity, damp. SILTY CLAY, some sand, fine to coarse grained, dark brown, medium dense, medium plasticity, damp, laminated 1-2 mm layers of silt and clay.	Soil Des	cription		Stra	San	San	Blo	₩ % 10	¹ 10² 10³ 10⁴	
NOTES	coarse grained, brown, loose, da (75-150 mm), subrounded. (con 15-150 mm),	e gravel, subroown, dense, loo coarse grained sand, s	unded, some ow plasticity, och		\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\			100		LC_MW_SRD2
NOTES					$\stackrel{\checkmark}{\nearrow}$			<u>:</u>		
			1	NOTE	S					

	CRIC. I ANIA	TINI	T	eck C	Client oal Lin	nited			Borehole	No.: LC_BH_SRD2A
 7))	SNC+LAVA	TIN	Regional		cation ndwate	er Monito	ring			PAGE 3 OF 3
Drilling Boreho	Contractor Mud Bay Drilling Co. Ltd. Method Vibratory Sonic ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5525984.	. (m̀) ´	n/a	7.216 ting: 6538	84.63	34	Project Number: Borehole Logged Date Drilled: Log Typed By:	686625 By: AH 2021 11 20 VL
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Lev ✓ Water Lev • NAPL ◇ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	overy	indicated scale	Solid PVC Slotted PVC Well Name 1: LC_MW_SRD2A
Deptl	Soil Des			Stratig	Sample Core F	Sample	Blow	% Recovery جَ	10 ² 10 ³ 10 ⁴	
21-	SANDY CLAY, fine to medium grocoarse, subrounded, some silt medium plasticity, moist. (continual BEDROCK.	, dark grey, m	some gravel, fine ledium dense,					80	Ÿ Ÿ Ÿ	SAND BENTONITE
23	Bottom of hole at 22.8 m.			V ///				:		(////
24-										
27-										
28-										
30			_							
2020 TO				NOT	ES					

<i>"</i>	SNC+LAVA	TIN	Te	eck C	Client oal Lin	nited			Borehole	No.: LC_BH_SRD2B
II	SINC LAVA		Regional (cation ndwate	r Monite	oring			PAGE 1 OF 1
illing reho	Contractor Mud Bay Drilling Co. Ltd Method Vibratory Sonic ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5525982.	(m)	n/a	7.215 ing: 6538	384.74		Project Number: Borehole Logged Date Drilled: Log Typed By:	686625 By: AH 2021 11 20 VL
Deptri in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Lev □ Water Lev • NAPL □ NAPL	/el 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	P Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: LC_MW_SRD2B
ne L	Soil Des	cription		Stra	San	San	Blo	₩ % 10	¹ 10 ² 10 ³ 10 ⁴	
0	SILTY SAND, fine grained sand plasticity, damp, contains organ	, trace clay, loc ic material.	ose, low					70		
1-	SAND, fine to medium grained, poorly graded, brown, loose, da	trace gravel, fi mp.	ne, subrounded,		$\stackrel{\checkmark}{\searrow}$					
2-	GRAVEL, fine to coarse, subrou coarse grained, brown, loose, d. (75-150 mm), subrounded.									
3-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1								80		BENTONITE
5-					>>>>>>>					
6	At 5.8 m - moist. Between 6.1 m and 9.1 m - trac	e silt.						50		
8-1										LC_MW_SRD2
9-1	Bottom of hole at 9.1 m.									SLOUGH
7										
10-			Γ	NOT	ES					

Elkview Operations Borehole Logs – Wells for Evaluation

	CRIC T ATTA		т		Client oal Lin	nited				l	Boreho	le No. :	EV_E	BH_EC	3A
	SNC+LAVA	ILIN	Regional		cation ndwate		oring	I				PAGE ²	1 OF	6	
Drilling Boreho	g Contractor Mud Bay Drilling Co. Ltd. g Method Vibratory Sonic ole Dia. (m) 0.18 slotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface El Top of Casing Elev Northing: 5506540	′. (m̀) ´	133 ²		340			Boreh Date [ct Number: ole Logged Drilled: yped By:	By:	683032 TG 2021 09 VL	16	
Depth in Metres	Drilling Legend Sample Interval	Water/NA ▼ Water Le ▽ Water Le • NAPL ◇ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	ir • F ir	Reading	d scale g outside d scale apour	SI	olid PVC otted PV		СЗА
De	Soil Des	scription		Stra	San	San	Blc	₩ % 1	0 ¹	10²	10 ³ 10			ian pressi water)	ure: 47.5 psi
0-	SAND and GRAVEL, fine to coarcoarse gravel, subangular, sombrown, roots and organics to 0.1 CLAYEY GRAVEL, subrounded silt, some sand, containing cobbAt 0.9 m - grey.	e silt, containir I5 m. I to subangular	ng cobbles, dark									#######################################	# # # # # # # # # # # # # # # # # # #		
1	SILT and CLAY, high plasticity,	grey.										‡ # ‡ #	# #		
3	Below 5.2 m - laminations of silt medium grained sand comprisin and clay.				FEC							#######################################	#######################################		T, 7 in. steel casing
					ehole	diamete ation pr					n, 0.15 m eyed).	to EOH			

	CRIC. I ATIA	TINI	т	eck C	Client oal Lin	nited				Borehol	e No	o. : E\	/_BH	_EC3	Α
7))	SNC+LAVA		Regional		cation dwate	r Monito	oring				PAG	E 2 C)F 6		
Drilling Boreh	g Contractor Mud Bay Drilling Co. Ltd. g Method Vibratory Sonic ole Dia. (m) 0.18 Slotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5506540		1331 1332		340			Project Number: Borehole Logged Date Drilled: Log Typed By:	Ву:	6830 TG 202 ⁻ VL)32 I 09 16		
Depth in Metres	Drilling Legend Sample Interval	Water/NA ▼ Water Lev □ Water Lev • NAPL □ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	w Count	% Recovery	•	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	We	Solid f	d PVC	MW_EC3	3A
De	Soil Desc	cription		Strat	Sam Core	Sam	Blow (₹ % 1	0 ¹	10² 10³ 10⁴					
13-11-11-11-11-11-11-11-11-11-11-11-11-1	SILT and CLAY, high plasticity, g Between 14.9 m and 16.0 m - sa moderate plasticity. At 17.4 m - 0.15 m lense of sand some clay, low plasticity. At 18.3 m - frequency of sand lar	ndy, fine grain	ned sand, grained sand,								• • • • • • • • • • • • • • • • • • •		+++++++++++++++++++++++++++++++++++++++	— GROUT,	7 in. steel casing
				NOT Bore Colla	ES ehole o ar loca	diamete ation pre	er 0.′ elimi	18 m nary	to 2 (no	21.3 m, 0.15 m t surveyed).	to E	OH.			

	CRIC. T ATTA	TINI	т		Client oal Lin	nited				Borehol	e No. :	EV_B	BH_EC3A
7))	SNC+LAVA		Regional		cation ndwate	er Monito	oring				PAGE	3 OF (6
Drilling Boreho	g Contractor Mud Bay Drilling Co. Ltd. g Method Vibratory Sonic ole Dia. (m) 0.18 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5506540		133 ²		340		E	Project Number: Borehole Logged Date Drilled: Log Typed By:	Ву:	683032 TG 2021 09 VL	16
Depth in Metres	Drilling Legend Sample Interval	Water/NA ▼ Water Lev □ Water Lev ♠ NAPL ○ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	• Re	eading within dicated scale eading outside dicated scale soil Vapour (ppm)	s	olid PVC lotted PV	C /_MW_EC3A
De	Soil Des	cription		Stra	San	San	В	% 1	0 ¹ 1	10 ² 10 ³ 10 ⁴			
21-	SILT and CLAY, high plasticity, of SILT and SAND, fine grained sa sand, trace to some clay, grey, s	nd, some mec	lium grained								# ## # ## # ## # ## # ## # ## # ##	# # # # # # # # # # # # # # # # # # #	GROUT, 7 in. steel casing
23-											* # # # # # # # # # # # # # # # # # # #	#######################################	
25											# # # # # # # # # # # # # # # # # # # #	#######################################	GROUT, 6 in. steel casing
28-											# # # # # # # # # # # # # # # # # # #		
				NOT Bore Coll	ehole	diamete ation pr	er 0.´ elimi	18 m nary	to 21 (not	1.3 m, 0.15 m surveyed).	to EOF	l.	

	CRIC T ATIA	TTNT	т		Client oal Li n	nited				Borehol	e No.	: EV_	BH_	EC3A	\
7))	SNC+LAVA		Regional		cation ndwate	er Monito	oring	1			PAGE	4 OF	6		
Drilling Boreho	g Contractor Mud Bay Drilling Co. Ltd. y Method Vibratory Sonic ole Dia. (m) 0.18 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Electrop of Casing Electropy Northing: 5506540		133 ²		340			Project Number: Borehole Logged Date Drilled: Log Typed By:	Ву:	68303 TG 2021 (VL			
Depth in Metres	Drilling Legend Sample Interval	Water/NA ▼ Water Lev ⊽ Water Lev ♠ NAPL ◇ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	w Count	Recovery	•	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Well	Solid PV Slotted F Name 1:	PVC	W_EC3A	
De	Soil Des	cription		Strai	Sam	Sam	Blow	ৃ	1 ₀ 1	10 ² 10 ³ 10 ⁴					
30-	SILT and SAND, fine grained sar sand, trace to some clay, grey, sl	lightly cohesiv	e. (continued)						:		‡ ‡ ‡	# # # # # #	# # #		
31-	SAND, fine to medium grained, s laminations of silt and clay up to 10% within dominant sands.										+ + + + +	# # # # # # # # # # # #	# # # # #		
32	At 32.0 m - 0.20 m lense of claye grained sand, some silt, trace cogravel, low plasticity. Below 32.2 m - no gravel.										+ + + + + +	# # # # # # # # # # # #	# # # # #		
33-	Below 33.3 m - increasing silt.										# # #	# # # # # # # #	# # # #		
34-	SILT and CLAY, trace gravel, fin trace sand, medium to coarse gradark brown to grey, dense, low to	ained, contain	ing cobbles,								# # # # # #	# # # # # # # # # # # # # # #	# # # #		
35	At 35.1 m - 0.20 m lense of fine to coarse grained sand, some silt, g										+ + + + + .	# # # # # # # # # # # #	# # # # #	GROUT, 6 in.	n. steel casing
36-	Below 36.2 m - no sand, no grave	el.									# # #	# # # # # # # # # # # # # # #	# # # #		
37	SAND, fine to coarse grained, so	ome silt to silty	, light brown.								# #	# # # #	# # #		
38-	SILT and CLAY, some gravel, fin sand, coarse, compact, light brow										# # #	# # # # # # # # # # # # # # # # # # # #	# # # #		
39	SILT and CLAY, some sand, fine gravel, fine, subangular, dark bro till-like. At 38.4 m - 0.25 m lense of fine t fine gravel, trace to some silt, da	se, low plasticity, ned sand, trace								+ + + + + + + +	# # # # # # # # # # # # # # # # # # #	+ + + + + + + +			
40	Below 39.6 m - some gravel, trace grained, containing cobbles.	ce sand, fine to	o coarse		TE0				<u></u>		‡ ‡	# # #	###		
				NOT Bore Coll	ehole	diamete ation pre	er 0.1 elimi	18 m nary	to (no	21.3 m, 0.15 m ot surveyed).	to EC)H.			

	OBIO TATA	TTAT	Т		Client oal Li r	nited			Boreho	e No. :	EV_BI	-LEC3	4
 ?))	SNC·LAVA		Regional		cation ndwate	er Monito	oring			PAGE 5	OF 6		
Drillin Boreh	g Contractor Mud Bay Drilling Co. Ltd. g Method Vibratory Sonic ole Dia. (m) 0.18 Slotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Electrop of Casing Electropy Northing: 5506540		133 133		340		Project Number: Borehole Logged Date Drilled: Log Typed By:	By: T	83032 G 021 09 10/L	6	
Depth in Metres	Drilling Legend Sample Interval Soil Des	Water/NA ▼ Water Lev ▽ Water Lev ◆ NAPL ◇ NAPL Cription	vel 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Slo	lid PVC otted PVC me 1: EV_	_MW_EC3#	4
41-42-43-44-44-44-44-44-44-44-44-44-44-44-44-	SILT and CLAY, some sand, fine gravel, fine, subangular, dark brotill-like. (continued) SAND and GRAVEL, subrounde silt, dark brown, loose. CLAYEY, SANDY GRAVEL, fine to subangular, loose, low plastic SILT and CLAY, trace sand, fine	e to coarse gracity. to coarse gracity. to coarse grangular, dark grangular,	ar gravel, some vel, subrounded ined, trace rey, very dense, des.					6 100	1 102 103 10	*#####################################	· · · · · · · · · · · · · · · · · · ·	—— GROUT, 6	in. steel casing
50-				NOT Bore Coll	ehole	diamete	er 0.′ elimi	18 m t	o 21.3 m, 0.15 m not surveyed).	to EOH.	# #		

	CD10 T AT74		To		Client oal Lin	nited				Borehol	e No	o. : E	EV_E	BH_EC3A
*))	SNC+LAVA	LIN	Regional		cation dwate	r Monito	ring				PAG	E 6	OF	6
Drilling Boreho	g Contractor Mud Bay Drilling Co. Ltd. y Method Vibratory Sonic ole Dia. (m) 0.18 llotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5506540		133 ²		40			Project Number: Borehole Logged Date Drilled: Log Typed By:	Ву:	TC	21 09	16
Depth in Metres	Drilling Legend Sample Interval	Water/NA ▼ Water Le ▽ Water Le • NAPL ◇ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	Recovery	•	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	We	Slot	d PVC ted PV ne 1: E	
De	Soil Des	cription		Stra	San Core	San	Blo	્રા	0 ¹	10² 10³ 10⁴				
51-	SILT and CLAY, dark brown, der drilling than previous material. (a Below 50.3 m - low plasticity. Below 51.2 m - trace sand, fine to coarse, subrounded to subangul	continued) to coarse, trac									+ + + + + + + + +	# # # # # # # # # # # # # # # # # # # #	# # # # # # # # # # # # # # # # # # # #	GROUT, 6 in. steel casing
52	GRAVELLY SILT and CLAY, fine subangular, some sand, fine to dense. SAND, fine grained, some silt, b laminations, no plasticity.	coarse grained	l, dark brown,								‡ ‡ ‡ ‡ ‡	# # # # #	# # # # # # # # # # # # # # # # # # #	GROUT, no steel casing
53-											‡ ‡	#-	# :	EV_MW_EC3A
54-	SILTY SAND and GRAVEL, sub containing cobbles, grey, reducir Below 54.0 m - gravel, fine to co to coarse grained sand, some si Below 54.3 m - gravel, fine to co subangular, some sand, coarse fine to medium grained, containi	ng fine fractior parse, subangu lt. parse, subroun grained, trace	n downwards. ular, sandy, fine ded to silt, trace sand,								+ + + + + + + + + + + + + + + + + + + +	# # # # # # #	# # # # # # # # # # # # # # # # # # # #	GROUT and pre-packed screen
55-	be washed out. At 54.9 m - Artesian flow encour pulled. Shut-in gauge pressure of before installing well. Flow of 1.1 and increased after one 10 ft rur (highest flow rates not measure Produced water included silt and	of 37.5 psi mea I L/s measure n of casing wa d and on the o	asured at collar d in cased hole, s removed rder of 10 L/s).											
	grained). Bottom of hole at 54.9 m.													
57-														
58-														
59														
60					ehole					21.3 m, 0.15 m ot surveyed).	to E	OH.		



EV_MW_EC3B CLIENT: Teck Coal Ltd. LOGGED BY: DVB **PSD SPT Blow Count** Sample Lithologic Symbol Vane Shear Test Well Installation Energy Efficiency (%) Gravel / Sand / Silt / Clay (%) No. Silt/Clay Gravel Organics Recovery Ξ Depth (ft) Sand O Boulder/Cobbles No Recovery ▼ S_u - Peak ∇S_u - Residual ■ Moisture Content (%) (%) Grab
SPT
LPT
Shelby **Backfill Details** Plastic Limit
Liquid Limit (kPa) N Value 25 50 75 100 0 10 10 10 10 10 10 **USCS** 9 20 8 9 Soil Description 20 40 Stick-up: 1.18m 0 OL/OH; Organics 00 - 3 GRAVEL (GW-GM) - few cobbles, few 0 ĜM-GW sand, few fines, very loose, moist, well-graded, fine sand to coarse 24270 0 gravel, subrounded; 00 0 3/0/1 2 - 8 24272 3 - 10 11 24273 LEAN CLAY (CL)* - very soft, moist to wet, low plasticity, very dark grayish - 12 13 brown (10YR 3/2); 0/0/67/33 24274 14 15 16 24275 0/1/2 17 18 19 24276 20 1/1/0 - 21 24277 LEAN CLAY (CL)* - trace sand, very soft, moist to wet, low plasticity, very 22 dark grayish brown (10YR 3/2); - 23 24 25 26 8 LEAN CLAY (CL)* - little sand, very 27 soft, moist to wet, poorly-graded, fine sand to medium sand, low plasticity, 28 very dark grayish brown (10YR 3/2); 0/29/54/17 24278 29 30 31 32 33 40 34 35 0/0/2 0/7/64/29 24280 36 82.8% 37 24281 ĊĹ 38 39 40 Well Installation Details *Description inferred after reviewing laboratory results

Bentonite

PVC

☐ End Cap Slough



PROJECT: Erickson Dam site investigation

DRILLHOLE ID: SRK21-ED-BH04

LOCATION: Elkview Operations

DRILL TYPE: Sonic TSi 150cc Compact Crawler

COORDINATES:

DRILLING DATE:

660842.3 E 5506516.4 N

04-Sep-21 TO: 06-Sep-21

Bentonite

PVC

■ End Cap Slough

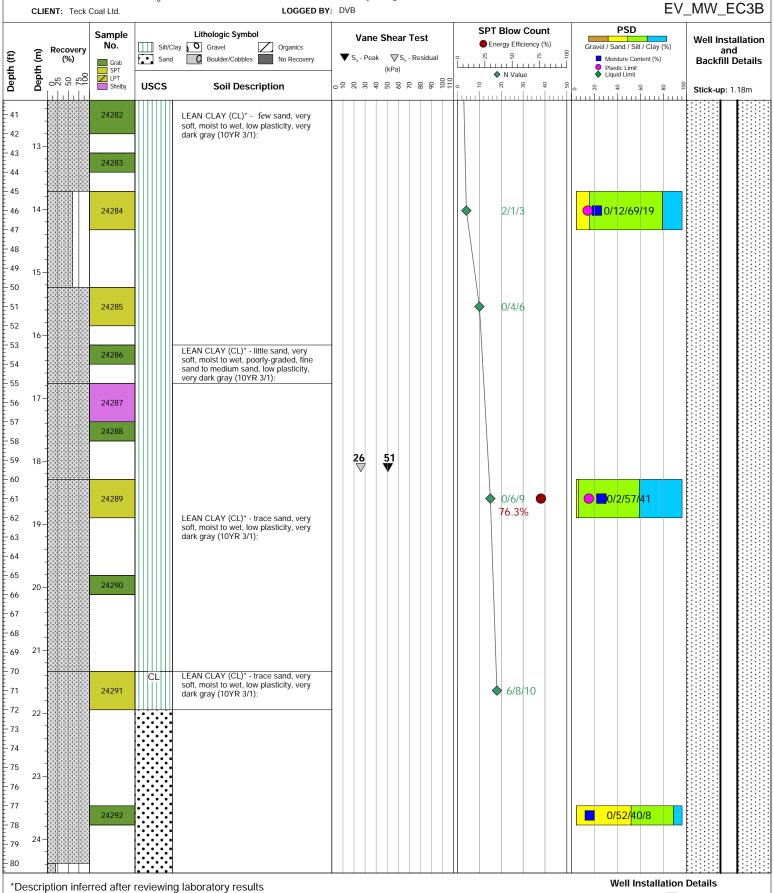
Screen

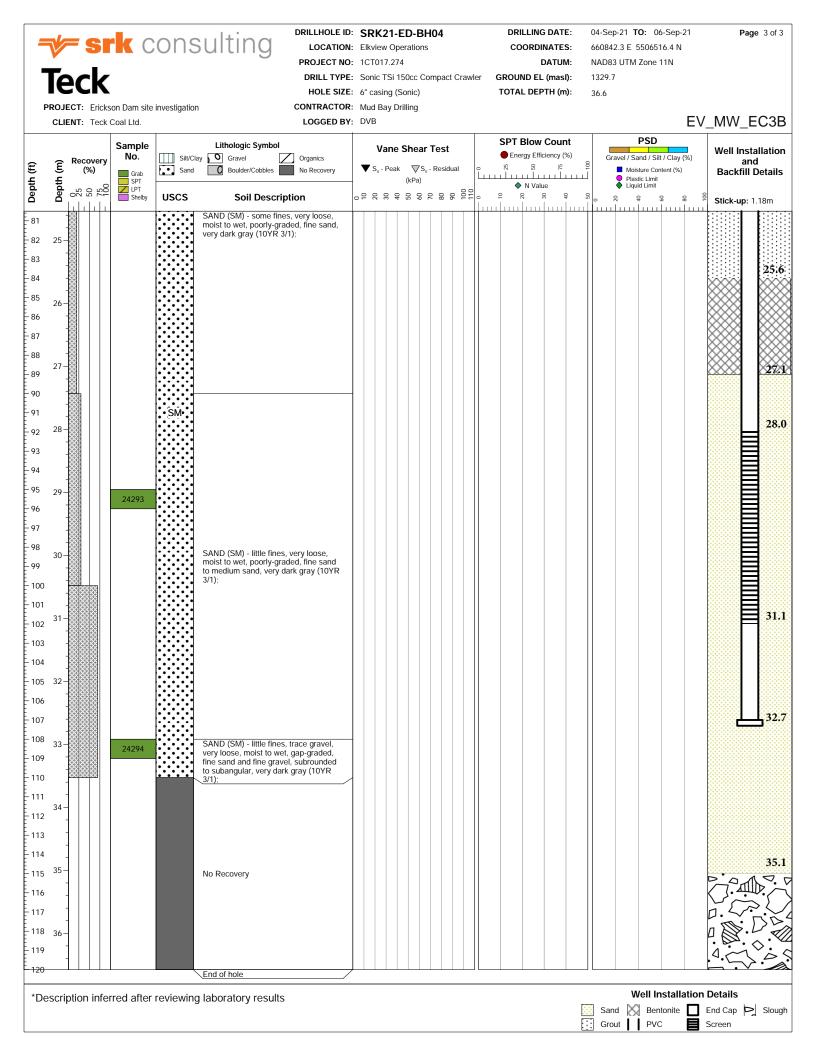
NAD83 UTM Zone 11N

Page 2 of 3

DATUM: GROUND EL (masl): 1329.7 TOTAL DEPTH (m): 36.6

HOLE SIZE: 6" casing (Sonic) CONTRACTOR: Mud Bay Drilling





	ONIO TATA	T T T T T	т		Client oal Lin	nited			Е	Borehole N	lo. : EV	_BH22_I	RCSgw_1A
*))	SNC+LAVA	LIN	EVO		cation nd Boo	die Cree	k				PAGE	1 OF 3	
Drilling Boreho	g Contractor Forged Drilling g Method Vibratory Sonic ole Dia. (m) 0.15 clotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5509281.	. (m) ´	116 116	2 07 28 1.443 2.309 116 ting: 655			Bo Da	roject Number orehole Logge ate Drilled: og Typed By:		692054 MTB 2022 07 16 MF)
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Le □ Water Le • NAPL □ NAPL	vel 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	Recovery	Realindi Soi	ading within cated scale ading outside cated scale il Vapour (ppm)		Solid PVC Slotted PVC me 1: EV_N	//W22_RCSgw_1A
ă	Soil Desc	cription		Stra	San	San	B	~	1 ₀ 0 ¹ 10) ² 10 ³ 10))1		
0-	SAND and GRAVEL (FILL), fine to coarse gravel, subangular to a silt, brown, loose, wet. SAND (FILL), fine to coarse grain coarse, subangular-angular, som	ngular, well g	graded, some					30					
2-	present.		. ,			1A-01		50					
4	GRAVEL (NATIVE), fine to coars fine to coarse grained, trace silt, brown, loose, wet.					1A-02					.		
6-	From 6.1 m to 6.4 m - coal dust p	present.						70					
7	SAND and GRAVEL, fine to coar coarse gravel, subrounded, well loose, wet.	graďed, some	e silt, brown,			1A-03							
9-	SANDY GRAVEL, fine to coarse coarse grained sand, well graded wet. SAND and GRAVEL, fine to coar coarse gravel, subrounded, well loose, wet.	d, some silt,	brown, loose,					90					
				NOT Bold		le deno	ites s	ampl	e analy	yzed.			

41		-	т		lient oal Lim	ited			Borehole N	lo. : EV_BH22_RCSgw	/_1A
)))	SNC+LAVA	LIN	EVO		cation nd Bod	lie Cree	k			PAGE 2 OF 3	
rilling oreho	Contractor Forged Drilling Method Vibratory Sonic ele Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface El Top of Casing Elev Northing: 5509281	/. (m)	1161 1162	07 28 .443 .309 116 ing: 655			Project Number: Borehole Logged Date Drilled: Log Typed By:		
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NAI ▼ Water Le □ Water Le • NAPL □ NAPL	vel 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count		Page Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: EV_MW22_RC	CSgw_1
	Soil Desc	cription		Stra	San	San	В	% 10	¹ 10 ² 10 ³ 10	9	
10-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-	SANDY GRAVEL, fine to coarse coarse grained sand, well grade wet.					1A-04					
-	SAND, fine to medium grained s subrounded, poorly graded, trace					1A-05					
3-	SANDY GRAVEL, fine to coarse coarse grained sand, trace silt, li							80			
4-						1A-06				BENTONT	E
5								80			
7-	At 16.5 m - brown.										
, +	SAND, fine grained, some silt, dowet.	ark brown, me	edium dense,			1A-07					
8-	SILT, some sand, fine grained, d moist.	ark brown, fir	m, low plasticity,			1A-08		60			
9	SILT and GRAVEL, fine to coars subrounded, some sand, fine to medium dense, moist.	coarse graine	ed, dark brown,	30000		1A-09				BENTONIT	E/CUTTIN
0.0	SAND and GRAVEL, fine to coar subangular to subrounded, some dense, wet.	se grained sa e silt, dark bro	and, fine gravel, own, medium							SAND	
				NOT Bold		e deno	tes s	ample	analyzed.		

	CRIC. I ANIA	TINI	7		Client oal Lin	nited			Во	rehole N	o.: EV_BH22_RCSgw	_1A
7))	SNC · LAVA	LIIN	EVO		cation Ind Boo	die Creel	k				PAGE 3 OF 3	
Drilling Boreho	Contractor Forged Drilling Method Vibratory Sonic ble Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface El Top of Casing Elev Northing: 5509281	/. (m̀) ´	116 116	2 07 28 1.443 2.309 116 ting: 6558			Bore Date	ect Number: hole Logged Drilled: Typed By:	692054 By: MTB 2022 07 16 MF	
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NAI ▼ Water Le ⊽ Water Le • NAPL ◇ NAPL	vel 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count		indicaReadiindicaSoil \	ng within ted scale ng outside ted scale /apour om)	Solid PVC Slotted PVC Well Name 1: EV_MW22_RC	Sgw_1A
Det	Soil Desc	cription		Strat	Sam	Sam	Blo	% 10) ¹ 10 ²	10 ³ 10 ⁴		
21-	SAND and GRAVEL, fine to coar subangular to subrounded, some dense, wet. (continued) BEDROCK, siltstone, dark grey.	se grained sa e silt, dark bro	and, fine gravel, wn, medium			1A-10					EV_MW22_RI	
24	Bottom of hole at 24.1 m.					1A-11				;		
25												
				NO1 Bolo	Γ ES I samp	le deno	tes s	ample	analyz	ed.		

		T T T T	T		Client oal Lin	nited			Borehole N	lo. : EV_	BH22_R	CSgw_1B
*))	SNC+LAVA	LIN	EVO C		cation nd Boo	die Cree	k			PAGE 1	OF 2	
Drilling Boreho	g Contractor Forged Drilling g Method Hydrovac/Vibratory Sonic ble Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5509281.0	(m) ´	1161 1162	2 07 18 1.535 2.394 116 ting: 6559			Project Number: Borehole Logged Date Drilled: Log Typed By:	d By: N	92054 ИТВ 2022 07 17 ИF	
Depth in Metres	Drilling Legend Sample Interval Vac. Extraction Vibrasonic	Water/NA ▼ Water Le ▽ Water Le ◆ NAPL ◇ NAPL	vel 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Sid	otted PVC e 1: EV_M	W22_RCSgw_1A
D _O	Soil Desc	cription		Stra	Sarr	Sam	Blo	₩ %	0 ¹ 10 ² 10 ³ 10	<u> </u>	7	
1-	SAND and GRAVEL (FILL), fine to coarse gravel, subangular to a silt, brown, loose, dry. SAND (FILL), fine to coarse grain coarse, subangular to angular, so coal present.	ngular, well ç	graded, some									
2-								60				
5	GRAVEL (NATIVE), fine to coars fine to coarse grained, trace silt, brown, loose, dry.											— BENTONITE
7-	At 6.0 m - wet.							20		Y		
9-	SANDY GRAVEL, fine to coarse coarse grained sand, well graded wet. SAND and GRAVEL, fine to coar coarse gravel, subrounded, well loose, wet.	d, some silt,	brown, loose,					80				— BENTONITE/CUTTINGS — SAND
				NOT Bold		le deno	tes s	ample	e analyzed.			

	CRIC. I ANIA	TINI	Т		Client oal Lin	nited			Bor	ehole N	o. : EV_BH22_RCSgw_1B
7))	SNC · LAVA	LIIN	EVO (cation nd Boo	die Creel	k				PAGE 2 OF 2
Drilling Boreho	Contractor Forged Drilling Method Hydrovac/Vibratory Sonic Dia. (m) 0.15 Ottled Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Electrop of Casing Electron. Northing: 5509281.	(m)	116 ²	2 07 18 1.535 2.394 116: ting: 6559			Borel Date	ct Number: nole Logged Drilled: Typed By:	692054 I By: MTB 2022 07 17 MF
Depth in Metres	Drilling Legend Sample Interval Vac. Extraction Vibrasonic	Water/NA ▼ Water Le ⊽ Water Le • NAPL △ NAPL	vel 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	indicate Readin		Solid PVC Slotted PVC Well Name 1: EV_MW22_RCSgw_1B
Dek	Soil Desc	cription		Strat	Samı	Samı	Blov	% 10	¹ 10 ²	10 ³ 10	•
10-	SANDY GRAVEL, fine to coarse coarse grained sand, well graded wet. SAND, fine to medium grained, t poorly graded, trace silt, brown,	d, some silt,	brown, loose,								EV_MW22_RCSgw_1B
12-	Bottom of hole at 11.9 m.	loose, wet.		****				:	:		BENTONITE
13- 14- 15- 17- 18-											
				NOT Bold	T ES I samp	le denot	tes s	ample	analyze	ed.	

	ONTO T AT74	T T	To		lient oal Lin	nited			Borehole N	o. : EV_	BH22_R	CSgw_1C
 ?))	SNC+LAVA	LIN	EVO (cation nd Boo	die Cree	k			PAGE 1	OF 1	
Drilling Boreh	g Contractor Forged Drilling g Method Vibratory Sonic ole Dia. (m) 0.15 Slotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5509279.	(m)	116 ²	2 07 14 1.516 2.423 116 ting: 6559			Project Number: Borehole Logged Date Drilled: Log Typed By:	I By: N	692054 MTB 2022 07 17 MF	
Depth in Metres	Drilling Legend Sample Interval Vac. Extraction Vibrasonic	Water/NA ▼ Water Le ▽ Water Le • NAPL ◇ NAPL	vel 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Page Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	SIG	olid PVC otted PVC e 1: EV_MW	V22_RCSgw_1C
l a	Soil Desc	cription		Stra	Sarr	Sam	Blo	₩ % 10	1 10 ² 10 ³ 10]		
3- 3- 4- 5- 8- 8-	SAND and GRAVEL (FILL), fine to coarse gravel, subangular to a silt, brown, loose, dry. SAND (FILL), fine to coarse grain coarse, subangular to angular, so coal present. GRAVEL, fine to coarse, subrour coarse grained, trace silt, light brown of hole at 8.9 m.	to coarse graingular, well of the coarse graingular, well of the coarse grained, some grained, some silt, black	avel, fine to k, loose, dry,					80			FV.	BENTONITE BENTONITE/CUTTINGS MW22_RCSgw_1C SAND BENTONITE
- 10-				NOT Bold	ES samp	le deno	tes s	ample	analyzed.			

					<u>NA</u>	<u>\L</u>			_					
<i>(1)</i>	CNICAT ATTA	TTNT	To		lient oal Lin	nited				Borehole N	lo. : E	V_BH2	2_BCgw	_1A
7 //	SNC · LAVA	LII	EVO (cation nd Boo	die Cree	k				PAGE	1 OF	4	
Drilling Boreho	Contractor Forged Drilling Method Vibratory Sonic le Dia. (m) 0.15 otted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5509655.	(m)	1153 1154	2 07 14 3.260 4.178 115 ting: 655		'2		Project Number: Borehole Logged Date Drilled: Log Typed By:	Ву:	692054 MTB 2022 07 MF	13	
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Le ▽ Water Le ◆ NAPL ◇ NAPL	vel 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	Recovery	•	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Well	Solid PVC Slotted P ^N Name 1: I		BCgw_1A
٥	Soil Desc	ription		Str	Sar	Sar	ā	્રા	O ¹	10 ² 10 ³ 10 ⁴		П		
3-	SAND, fine to coarse grained, so subrounded, trace silt, dark brown present to 0.5 m. GRAVEL, fine to coarse, subroun fine to coarse, trace silt, trace cot	n, loose, dry,	organics			1A-01		10			▼ //		BENTONITI	
6-	SAND and GRAVEL, fine to coars coarse gravel, subrounded, well gloose, wet.					1A-02		90						
8-	GRAVEL, fine to coarse, subangus and, fine to coarse grained, trace	ular to subrou e silt, brown,	unded, some loose, wet.					70						
10-				NOT Bold		le deno	tes sa	ampl	e ar	nalyzed.				

					<u>N</u> H	<u>\</u>			T	
الم	CNIC . T ATTA	TTNT	Te		lient oal Lin	nited			Borehole N	lo. : EV_BH22_BCgw_1A
7))	SNC+LAVA	LIN	EVO G		cation nd Boo	die Cree	k			PAGE 2 OF 4
Drilling Boreho	Contractor Forged Drilling Method Vibratory Sonic le Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Elev Top of Casing Elev. Northing: 5509655.03	m)	1153 1154	2 07 14 3.260 4.178 115 ting: 6553		7 2	Project Number: Borehole Logged Date Drilled: Log Typed By:	692054 By: MTB 2022 07 13 MF
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Le ⊽ Water Le • NAPL ○ NAPL	vel 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: EV_MW22_BCgw_1
	Soil Desc	cription		Str	Sar	Sar	B	્ર	0 ¹ 10 ² 10 ³ 10 ⁴	
11-	GRAVEL, fine to coarse, subang sand, fine to coarse grained, trac (continued)	ular to subro ce silt, brown,	Inded, some loose, wet.			1A-03		50		
13-	SILTY GRAVEL, fine to coarse g subangular, some sand, fine gra					1A-04		60		BENTONITE
16	SILTY SAND and GRAVEL, fine to coarse gravel, subrounded to wet.	to coarse gra subangular, b	ined sand, fine rown, loose,			1A-05		40		
19	SILTY GRAVEL, fine to coarse g subangular, some sand, fine gra	iravel, subrou ined, brown, l	nded to oose, wet.			1A-06		40		BENTONITE/CUTTINGS EV_MW22_BCgw_1
				NOT Bold		le deno	tes s	ample	e analyzed.	

A) CNIC.T ATTA	TENT	Tec		lient al Lim	ited			Borehole N	lo. : EV_BH22_BCgw_1A
SNC+LAVA	LLIN	EVO Ga		cation nd Bod	ie Cree	k			PAGE 3 OF 4
Orilling Contractor Forged Drilling Orilling Method Vibratory Sonic Borehole Dia. (m) 0.15 Pipe/Slotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Elev. Top of Casing Elev. (i Northing: 5509655.03	m)	1153 1154	07 14 .260 .178 115 ng: 6553		7 2	Project Number: Borehole Logged Date Drilled: Log Typed By:	692054 By: MTB 2022 07 13 MF
Drilling Legend Sample Interval Vibrasonic Soil Des	Water/NAI ▼ Water Ler ▼ Water Ler ◆ NAPL ◇ NAPL	vel 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: EV_MW22_BCgw_1
Soil Des Soil Des SILTY GRAVEL, fine to coarse subangular, some sand, fine gr. (continued) SILTY SAND, fine to coarse gravel, some silt, brown dense, wet. SILTY GRAVEL, fine to coarse gravel, some silt, brown dense, wet. SILTY GRAVEL, fine to coarse some sand, fine grained, dark by some sand, fine grained, dark grey	gravel, subrour ained, brown, lained sand, brown arse grained sand, brown grained, brown gravel, subang brown, dense, v	wn, loose, wet. wn, loose, wet. ind, fine to e, wet. , medium			A-07 A-09		90	0 10 10 10 10	SAND BENTONITE

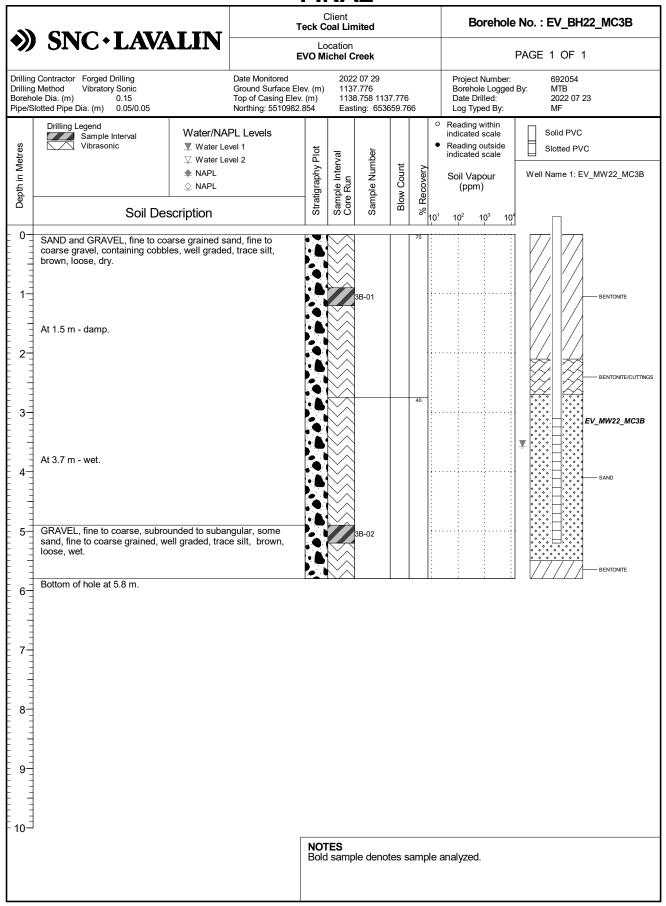
			-								
71)	SNC+LAVAL	TN	Te	eck C	Client oal Lin				Borehole N	lo. : EV_BH22_BCgw	_1A
~ //	SINCYLAVAL	TT.	EVO G	Lo Bate a	cation nd Boo	die Cree	k			PAGE 4 OF 4	
Drilling Borehol	Contractor Forged Drilling Method Vibratory Sonic e Dia. (m) 0.15 otted Pipe Dia. (m) 0.05/0.05	Ground Top of	Monitored d Surface Ele Casing Elev. ng: 5509655.0	(m)	1150 1154	2 07 14 3.260 4.178 115 ting: 655		7 2	Project Number: Borehole Logged Date Drilled: Log Typed By:	692054 By: MTB 2022 07 13 MF	
Depth in Metres	Vibrasonic Vibrasonic	ater/NAPL Lev Water Level 1 Water Level 2 NAPL NAPL	vels	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	Recovery	indicated scale	Solid PVC Slotted PVC Well Name 1: EV_MW22_E	3Cgw_1A
Pe	Soil Descrip	tion		Stra	Sam Core	Sam	Blo	₩ 101	10 ² 10 ³ 10		
30						1A-10				1	E
<u> </u>	Bottom of hole at 30.2 m.										
31											
32-											
33-											
34-											
35											
36											
37-											
Ē =											
38											
39-											
40											
				NOT Bold	ES samp	le deno	tes s	ample	analyzed.		

	CRIC. I ANIA	TINI	Т		Client oal Lin	nited			Borehole N	No. : EV_BH22_BC	gw_1B
7))	SNC+LAVA	LIIN	EVO (cation Ind Boo	die Creel	(PAGE 1 OF 1	
Drilling Boreho	Contractor Forged Drilling Method Vibratory Sonic Dle Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Electrop of Casing Electron Northing: 5509656.	. (m) ´	115 115	2 07 14 3.342 4.150 1154 ting: 6553		52	Project Number: Borehole Logged Date Drilled: Log Typed By:		
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Le ⊽ Water Le • NAPL NAPL	vel 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: EV_MW	22_BCgw_1B
De	Soil Des	cription		Strat	Sam	Sam	Blo	₩ %10	0 ¹ 10 ² 10 ³ 10		
1-	SAND, fine to coarse grained, so subrounded, trace silt, dark brow present to 0.5 m.	ome gravel, fii vn, loose, dry,	ne to coarse, organics					30		V	V22_BCgw_1B
3-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1	GRAVEL, fine to coarse, subrour fine to coarse grained, trace silt, loose, wet. SAND and GRAVEL, fine to coar coarse gravel, subrounded, well cobbles, brown, loose, wet.	containing co	obbles, brown,			1B-01		20		SAN	ID ITONITE
7 - 10 - 10 - 10 - 10 - 10 - 10 - 10 - 1	Bottom of hole at 5.8 m.			69							
				NOT Bolo	Γ ES I samp	le denot	es s	ample	analyzed.		

			Г	IA	<u>AL</u>				
	CRIC. T ATTA	T TR T	Teck	Clien Coal L	t Limited			Borehole	No. : EV_BH22_MC2C
*))	SNC · LAVA	LIN		ocatio	on I Creek				PAGE 1 OF 3
Drilling Boreho	Contractor Forged Drilling Method Vibratory Sonic ble Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Elev. (m Top of Casing Elev. (m) Northing: 5510511.068) 1 ⁻	022 07 15 147.018 147.947 11 asting: 654			Project Number: Borehole Logged Date Drilled: Log Typed By:	631283 By: MTB 2022 07 15 MF
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Le ⊽ Water Le • NAPL ○ NAPL	vel 1 <u>5</u>	Sample Interval	Core Run Sample Number	Blow Count		Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: EV_MW22_MC2C
ă	Soil Desc	ription	Stra	San	Sam	Blo	% 10	0 ¹ 10 ² 10 ³ 10 ⁴	П
2-	SAND and GRAVEL, fine to coarse coarse gravel, angular, well grade dry, coal present. At 3.1 m - wet.	ed, some silt	and, fine to		2A-01		50		BENTONTE
8-	coarse grained, brown, loose, nor At 7.3 m - gravel, subangular. At 8.8 m - light brown.	n-plastic, we	t.		2A-02		90		
			NC Bo	OTES Id sar	mple dend	otes s	ample	analyzed.	

				С	lient al Lim				Borehole No. : EV_BH22_MC2C
+))	SNC+LAVA	LIN	EVO		cation	reek			PAGE 2 OF 3
Drilling Boreho	Contractor Forged Drilling Method Vibratory Sonic le Dia. (m) 0.15 otted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Elev. Top of Casing Elev. (n Northing: 5510511.06	n) ĺ	1147 1147	2 07 15 7.018 7.947 114 ing: 654			Project Number: 631283 Borehole Logged By: MTB Date Drilled: 2022 07 15 Log Typed By: MF
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Le ▽ Water Le ◆ NAPL ◇ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count		Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm) Solid PVC Slotted PVC Well Name 1: EV_MW22_MC2C
	Soil Desc	ription		Str	Sa	Sa	В	% 10	10 ¹ 10 ² 10 ³ 10 ⁴
11-	GRAVEL, fine to coarse, subroun coarse grained, brown, loose, nor SILT and SAND, fine to medium of	n-plastic, we	t. (continued)						
13-	SILT and SAND, fine grained, bro non-plastic, wet.	wn, medium	dense,			2A-03		100	
15-	GRAVEL, fine to coarse, subroun sand, fine to coarse grained, brow					2A-04		70	BENTONITE
16 - 17 - 17 - 1									
18 - 19 - 19 - 19 - 19 - 19 - 19 - 19 -	At 19.0 m - light brown.					2A-05		30	
20-				NOTI Bold		le deno	tes s	ample	le analyzed.

				Client	<u>\L</u>				
<i>)))</i>	SNC·LAVA	IIN	Teck (Coal Li				Borehole	No. : EV_BH22_MC2C
IJ	OIIC · LAVA	TTT.	EVO N	ocation lichel (PAGE 3 OF 3
rilling oreho	Contractor Forged Drilling Method Vibratory Sonic le Dia. (m) 0.15 otted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Elev. (m) Top of Casing Elev. (m) Northing: 5510511.068	114 114	22 07 15 17.018 17.947 11 sting: 654			Project Number: Borehole Logged Date Drilled: Log Typed By:	By: MTB 2022 07 15 MF
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Le □ Water Le • NAPL □ NAPL	vel 1 <u>5</u>	Sample Interval Core Run	Sample Number	Blow Count		Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: EV_MW22_MC2C
ă	Soil Desc	ription	Stra	San	Sam	Blc	₩ %10	0 ¹ 10 ² 10 ³ 10 ¹	
221	GRAVEL, fine to coarse, subroun sand, fine to coarse grained, brown GRAVEL, fine to coarse, subroun coarse grained, well graded, trace	vn, loose, we	and, fine to				80		BENTONITE BENTONITEICUTTN EV_MW22_MC2C
24	At 24.0 m - light brown. SAND and GRAVEL, fine to coars coarse gravel, subrounded, well gloose, wet.				2A-06				SAND
26-	SILT and GRAVEL, fine to coarse sand, fine grained, brown, mediur	gravel, subi n dense, we	rounded, some		2A-07 2A-08				— BENTONITE/SLOUG
29	Bottom of hole at 27.2 m.								
				TES d samp	ple dend	otes s	ample	analyzed.	



Borehole Logs

- Background Borehole Logs Wells for Evaluation
- Fording River Operations Borehole Logs Wells for Evaluation
- Greenhills Operations Borehole Logs Wells for Evaluation
- Line Creek Operations Borehole Logs Wells for Evaluation
- Elkview Operations Borehole Logs Wells for Evaluation

Background Borehole Logs – Wells for Evaluation

Elkview Operations Borehole Logs – Wells for Evaluation

TABLE XIV - A: Summary of "For Evaluation" Wells - Installation Details (Background)

Area	Count	Well ID	Monitoring Program ^a	Well Type	Final Borehole Log		inates IAD 83)	Screened Formation
					(Y/N/Draft)	Easting	Northing	
	1	FR_MW22_CH3A	For Evaluation for RGMP	Monitoring	N	658263	5555526	-
	2	FR_MW22_CH3B	For Evaluation for RGMP	Monitoring	N	658262	5555526	-
Upgradient of Study	3	FR_MW22_FRX3465	For Evaluation for RGMP	Monitoring	N	653635	5558523	-
Area 1 (FRO)	4	FR_MW22_FRX3534	For Evaluation for RGMP	Monitoring	N	656260	5554565	-
	5	FR_MW22_KCWD1A	For Evaluation for RGMP	Monitoring	Draft	657212	5560555	Bedrock (Dolostone)
	6	FR_MW22_KCWD1B	For Evaluation for RGMP	Monitoring	Draft	657213	5560555	Sand and Gravel
	7	LC_MW22_LC1-1ABR	For Evaluation for RGMP	Monitoring	Draft	661957	5538175	Bedrock (Shale)
Upgradient of Study Areas 5/6	8	LC_MW_HC-1A	For Evaluation for RGMP	Monitoring	Y	663089	5535742	Gravel
(LCO)	9	LC_MW_HC-2A	For Evaluation for RGMP	Monitoring	Υ	662980	5535814	Cobble and Gravel
	10	LC_MW_HC-3A	For Evaluation for RGMP	Monitoring	Y	662800	5535787	Gravel and Clay
Upgradent of Study	11	EV_MW22_GV5A	For Evaluation for RGMP	Monitoring	Draft	659300	5523750	Sand and Gravel
Area 7 (EVO)	12	EV_MW22_GV5B	For Evaluation for RGMP	Monitoring	Draft	659299	5523749	Sand and Gravel
Upgradient of Study Area 10	13	RG_MW_AC1A	For Evaluation for RGMP	Monitoring	Y	663653	5502845	Silty Clay
(EVO)	14	RG_MW_AC1B	For Evaluation for RGMP	Monitoring	Y	663654	5502845	Sand and Gravel

Notes:

Draft borehole data is subject to change.

Also considered For Evaluation for Site-Specific Groundwater Monitoring Program (SSGMP)



a: RGMP denotes Regional Groundwater Monitoring Program.

[&]quot;-" denotes data not available.

TABLE XIV - B: Summary of "For Evaluation" Wells - Installation Details (FRO)

Area	Count	Well ID	Monitoring Program ^a	Well Type	Final Borehole Log (Y/N/Draft)	Coordinates (UTM NAD 83)		Screened Formation
					(T/N/Drait)	Easting	Northing	
	1	FR_MW23_HMW2_V2	For Evaluation for SSGMP	Monitoring	N	652643	5566630	-
	2	FR_MW23_HMW2_BR	For Evaluation for SSGMP	Monitoring	N	652643	5566630	-
	3	FR_MW22_HC1_1A	For Evaluation for SSGMP	Monitoring	Y	652233	5566416	Bedrock (Siltstone)
	4	FR_MW-HC1A	For Evaluation for SSGMP	Monitoring	Y	652261	5566589	Sand and Gravel
Henretta Creek Watershed	5	FR_MW-HC1B	For Evaluation for SSGMP	Monitoring	Y	652262	5566590	Gravel (Waste Rock)
	6	FR_MW-HC2A	For Evaluation for SSGMP	Monitoring	Y	652352	5566598	Gravel
	7	FR_MW-HC2B	For Evaluation for SSGMP	Monitoring	Y	652352	5566597	Gravel and Cobbles (Waste Rock
	8	FR_MW-HC3A	For Evaluation for SSGMP	Monitoring	Y	652580	5566548	Gravel (Colluvium)
	9	FR_MW-HC3B	For Evaluation for SSGMP	Monitoring	Y	652581	5566547	Gravel (Waste Rock)
	10	FR_MW-TB1A	For Evaluation for SSGMP	Monitoring	Draft	650891	5565248	Silt
	11	FR_MW-TB1B	For Evaluation for SSGMP	Monitoring	Draft	650901	5565248	Sand and Gravel
	12	FR_MW-TB2A	For Evaluation for SSGMP	Monitoring	Draft	650908	5565253	Sand and Gravel
	13	FR_MW-TB2B	For Evaluation for SSGMP	Monitoring	Draft	650907	5565251	Sand and Gravel
	14	FR_MW-TB2C	For Evaluation for SSGMP	Monitoring	N	650904	5565252	Gravel
	15	FR_MW-TB3A	For Evaluation for SSGMP	Monitoring	N	651011	5565267	Sandy Clay
	16	FR MW-TB3B	For Evaluation for SSGMP	Monitoring	N	651009	5565268	Sand
	17	FR_MW-TB3C	For Evaluation for SSGMP	Monitoring	N	651009	5565271	Gravel
	18	FR MW-TB5A	For Evaluation for SSGMP	Monitoring	N	650872	5565220	Sand and Gravel
	19	FR MW-TB5B	For Evaluation for SSGMP		N	650871	5565222	Sand and Gravel
		_		Monitoring				
	20	FR_MW-TB6A	For Evaluation for SSGMP	Monitoring	N	650860	5565176	Sand and Gravel
	21	FR_MW-TB6B	For Evaluation for SSGMP	Monitoring	N	650857	5565175	Sand
	22	FR_MW-TB8A	For Evaluation for SSGMP	Monitoring	N	650919	5565200	Sand and Gravel
	23	FR_MW-TB8B	For Evaluation for SSGMP	Monitoring	N	650918	5565198	Gravel
	24	FR_MW-TB9A	For Evaluation for SSGMP	Monitoring	N	650848	5565252	Gravelly Clay
	25	FR_MW-TB9B	For Evaluation for SSGMP	Monitoring	N	650846	5565251	Gravel
Fording Diver	26	FR_MW22_TBSTSF1A	For Evaluation for SSGMP	Monitoring	N	651391	5565345	-
Fording River Watershed	27	FR_MW22_TBSTSF1B	For Evaluation for SSGMP	Monitoring	N	651391	5565345	-
	28	FR_MW22_TBSTSF1C	For Evaluation for SSGMP	Monitoring	N	651391	5565345	-
	29	FR_MW22_POTW1A	For Evaluation for SSGMP	Monitoring	Y	651190	5565188	Silty Sand and Silt and Sand
	30	FR_MW22_POTW1B	For Evaluation for SSGMP	Monitoring	Y	651189	5565188	Gravelly Sand and Sand and Sil
	31	FR_MW22_POTW1C	For Evaluation for SSGMP	Monitoring	Y	651189	5565187	Sandy Gravel
	32	FR_MW22_POTW2A	For Evaluation for SSGMP	Monitoring	Y	651040	5565024	Sand
	33	FR_MW22_POTW2B	For Evaluation for SSGMP	Monitoring	Y	651039	5565021	Sand and Gravel and Sand
	34	FR_MW22_POTW3A	For Evaluation for SSGMP	Monitoring	Y	651145	5565041	Siltstone and Weathered Bedroc
	35	FR_MW22_POTW3B	For Evaluation for SSGMP	Monitoring	Y	651148	5565042	Sand and Gravel
	36	FR_MW22_POTW4A	For Evaluation for SSGMP	Monitoring	N	651182	5565097	-
	37	FR_MW22_POTW4B	For Evaluation for SSGMP	Monitoring	N	651182	5565097	-
	38	FR_MW22_POTW5	For Evaluation for SSGMP	Monitoring	N	651099	5565084	-
	39	FR_MW22_POTW6A	For Evaluation for SSGMP	Monitoring	N	651023	5564991	-
	40	FR_MW22_POTW6B	For Evaluation for SSGMP	Monitoring	N	651023	5564991	-
	41	FR_MW22_POTW7	For Evaluation for SSGMP	Monitoring	N	651144	5565129	-
	42	FR_MW22_POTW8A	For Evaluation for SSGMP	Monitoring	N	651077	5565077	-
	43	FR_MW22_POTW8B	For Evaluation for SSGMP	Monitoring	N	651077	5565077	-
	44							

a: SSGMP denotes FRO Site-Specific Groundwater Monitoring Program; RGMP denotes Regional Groundwater Monitoring Program.

b: Based on recommendations in 2022 SSGMP/RGMP Annual Report.

c: well decommissioned in 2022

[&]quot;-" denotes data not available.

Draft borehole logs are subject to change.

Also considered For Evaluation as a Background well for the Regional Groundwater Monitoring Program (RGMP)

TABLE XIV - B: Summary of "For Evaluation" Wells - Installation Details (FRO)

Area	Count	Well ID	Monitoring Program ^a	Well Type	Final Borehole Log (Y/N/Draft)		linates IAD 83) Northing	Screened Formation
	45	FR_MW22_FC1_1A	For Evaluation for SSGMP	Monitoring	Draft	650935	5564677	Bedrock (Siltstone)
	46	FR_MW22_FC1_1B	For Evaluation for SSGMP	Monitoring	Draft	650936	5564677	Sand and Gravel
	47	FR_MW22_CB-1C	For Evaluation for SSGMP	Monitoring	Y	651080	5564422	Gravelly sand and Silt
	48	FR_MW22_CB-7A	For Evaluation for SSGMP	Monitoring	Y	650849	5564165	Bedrock
	49	FR_MW22_CB-7B	For Evaluation for SSGMP	Monitoring	Y	650850	5564162	Silty Sand
	50	FR_MW22_CB-7C	For Evaluation for SSGMP	Monitoring	Y	650851	5564160	Gravel Overlying Clay
	51	FR_MW22_CB-X3A	For Evaluation for SSGMP	Monitoring	Y	650939	5564528	Gravelly Clay
	52	FR_MW22_CB-X3B	For Evaluation for SSGMP	Monitoring	Y	650940	5564530	Silty Sand
	53	FR_LMA-1	For Evaluation for SSGMP	Monitoring	Y	650785	5563845	Bedrock (Fernie Formation)
	54	FR_LMA-2	For Evaluation for SSGMP	Monitoring	Y	650853	5563847	Bedrock (Fernie Formation)
	55	FR_LMA-3	For Evaluation for SSGMP	Monitoring	Y	650780	5563951	Bedrock (Fernie Formation)
	56	FR_GCMW-3A	For Evaluation for SSGMP	Monitoring	Draft	651075	5563962	Bedrock (Fernie Formation)
	57	FR_GCMW-3B	For Evaluation for SSGMP	Monitoring	Draft	651077	5563964	Clay and Cobble
	58	FR_GCMW-3C	For Evaluation for SSGMP	Monitoring	Draft	651078	5563962	Gravel/Silty Clay
	59	FR_GCMW-4A	For Evaluation for SSGMP	Monitoring	Draft	651059	5563798	Bedrock (Fernie Formation)
	60	FR_GCMW-4B	For Evaluation for SSGMP	Monitoring	Draft	651059	5563800	Clay and Gravel
	61	FR_GCMW-4C	For Evaluation for SSGMP	Monitoring	Draft	651057	5563799	Silty Clay
	62	FR_GCMW-5A	For Evaluation for SSGMP	Monitoring	Draft	651094	5563573	Bedrock (Fernie Formation)
	63	FR_GCMW-5B	For Evaluation for SSGMP	Monitoring	Draft	651092	5563576	Silty Clay/Clay
	64	FR_GCMW-5C	For Evaluation for SSGMP	Monitoring	Draft	651090	5563580	Gravel
	65	FR_MW22_GCMW-6A	For Evaluation for SSGMP	Monitoring	Y	651033	5563917	Weathered/Fractured Bedrock
	66	FR_MW22_GCMW-6B	For Evaluation for SSGMP	Monitoring	Y	651033	5563917	Silt and Clay
Fording River Watershed	67	FR_MW_R41A	For Evaluation for SSGMP	Monitoring	Draft	651291	5563908	Alluvium/Bedrock (Fernie Formati
Watersneu	68	FR_MW_R42A	For Evaluation for SSGMP	Monitoring	Draft	651293	5563898	Bedrock (Fernie Formation)
	69	FR_MW_E41A	For Evaluation for SSGMP	Monitoring	Draft	652835	5561944	Bedrock (Kootenay Group)
	70	FR_MW_E42A	For Evaluation for SSGMP	Monitoring	Draft	652829	5561958	Bedrock (Kootenay Group)
	71	FR_MW-EC1A	For Evaluation for SSGMP	Monitoring	N	651261	5562779	Sand and Gravel
	72	FR_MW-EC1B	For Evaluation for SSGMP	Monitoring	N	651261	5562779	Gravel
	73	FR_MW-EC2A	For Evaluation for SSGMP	Monitoring	N	651201	5562878	Gravelly Till
	74	FR_MW-EC2B	For Evaluation for SSGMP	Monitoring	N	651201	5562877	Gravel with Sand
	75	FR MW-EC3A	For Evaluation for SSGMP	Monitoring	N	651330	5562916	Gravel
	76	FR MW-EC3B	For Evaluation for SSGMP	Monitoring	N	651331	5562916	Sand and Gravel
	77	FR MW-EC4A	For Evaluation for SSGMP	Monitoring	N	651420	5562817	Sandy Till
	78	FR MW-EC4B	For Evaluation for SSGMP	Monitoring	N	651420	5562818	Gravel with Sand
	79	FR 09-03-A	For Evaluation for RGMP /	Monitoring	Draft	652107	5559996	Gravely sand
	80	FR 09-03-B	SSGMP For Evaluation for RGMP /	Monitoring	Draft	652107	5559996	Gravely sand
	81	FR BH-03-16	SSGMP For Evaluation for RGMP /	Monitoring	N	652097	5559837	-
	82	FR_BH-04-16	SSGMP For Evaluation for RGMP /	Monitoring	N	652195	5559886	_
	83	FR_MW22_KCWD1A	SSGMP For Inclusion in SSGMP ^b	Monitoring	Draft	657212	5560555	Bedrock (Dolostone)
	84	FR_MW22_KCWD1A FR_MW22_KCWD1B	For Inclusion in SSGMP ^b	Monitoring	Draft	657213	5560555	Sand and Gravel
	85	FR_MW22_KCWD1B	For Evaluation for RGMP /	Monitoring	Draft	652650	5559881	Silty Gravel
		FR_KB-10MW	SSGMP For Evaluation for RGMP /				5559881	,
	86	_	SSGMP For Evaluation for RGMP /	Monitoring	Draft	652698		Gravel
	87	FR_KB-12PW	SSGMP For Evaluation for RGMP /	Monitoring	Draft	652721	5559856	Gravel
	88	FR_KB-13A	SSGMP	Monitoring	Draft	652695	5559839	Sand and Gravel
es:	89	FR_KB-13B	For Evaluation for RGMP / SSGMP	Monitoring	Draft	652695	5559840	Gravel

a: SSGMP denotes FRO Site-Specific Groundwater Monitoring Program; RGMP denotes Regional Groundwater Monitoring Program.

b: Based on recommendations in 2022 SSGMP/RGMP Annual Report.

c: well decommissioned in 2022

Draft borehole logs are subject to change.

Also considered For Evaluation as a Background well for the Regional Groundwater Monitoring Program (RGMP)

TABLE XIV - B: Summary of "For Evaluation" Wells - Installation Details (FRO)

Area		Well ID	Monitoring Program ^a	Well Type	Final Borehole Log (Y/N/Draft)	Coordinates (UTM NAD 83)		
	Count					Easting	Northing	Screened Formation
	90	FR_KB-14MW	For Evaluation for RGMP / SSGMP	Monitoring	Draft	652738	5559753	Sandy gravel
	91	FR_KB-15MW	For Evaluation for RGMP / SSGMP	Monitoring	Draft	652756	5559695	Gravel
	92	FR_KB-16MW	For Evaluation for RGMP / SSGMP	Monitoring	Draft	652773	5559643	Clayey sand
	93	FR_KB-17MW	For Evaluation for RGMP / SSGMP	Monitoring	Draft	652769	5559871	Gravel
	94	FR_KB-18MW	For Evaluation for RGMP / SSGMP	Monitoring	Draft	652834	5559840	Gravel
	95	FR_KB-19MW	For Evaluation for RGMP / SSGMP	Monitoring	Draft	652888	5559879	Gravel
	96	FR_KB-20MW	For Evaluation for RGMP / SSGMP	Monitoring	Draft	652949	5559837	Gravel
	97	RG_MW_FR2A	For Evaluation for RGMP	Monitoring	Y	653499	5556756	Sand and Gravel
	98	RG_MW_FR2B	For Evaluation for RGMP	Monitoring	Y	653500	5556755	Gravel
	99	RG_MW_FR3A	For Evaluation for RGMP	Monitoring	Y	653233	5556777	Sand and Gravel
	100	RG_MW_FR3B	For Evaluation for RGMP	Monitoring	Y	653233	5556778	Sand and Gravel
	101	RG_MW_FR4A	For Evaluation for RGMP	Monitoring	Y	653496	5556366	Gravel
	102	RG_MW_FR4B	For Evaluation for RGMP	Monitoring	Y	653496	5556368	Sand
	103	RG_MW_FR5A	For Evaluation for RGMP	Monitoring	Y	653572	5556260	Clayed Sand
Fording River	104	RG_MW_FR5B	For Evaluation for RGMP	Monitoring	Y	653573	5556257	Sand and Gravel
Watershed	105	RG_MW_FR5C	For Evaluation for RGMP	Monitoring	Y	653570	5556259	Sand and Gravel
	106	RG_MW_FR6A	For Evaluation for RGMP	Monitoring	Y	653598	5556055	Sand and Gravel
	107	RG_MW_FR6B	For Evaluation for RGMP	Monitoring	Y	653596	5556055	Sand and Gravel
	108	RG_MW_FR7A°	For Evaluation for RGMP	Monitoring	Y	653634	5555487	Sand
	109	RG_MW_FR7B°	For Evaluation for RGMP	Monitoring	Y	653634	5555484	Sand and Gravel
	110	RG_MW22_FR12A	For Evaluation for RGMP	Monitoring	Draft	653619	5555473	Bedrock (Shale)
	111	RG_MW22_FR12B	For Evaluation for RGMP	Monitoring	Draft	653619	5555473	Sand and Gravel
	112	RG_MW22_FR12C	For Evaluation for RGMP	Monitoring	Draft	653619	5555473	Sand
	113	RG_MW22_FR12D	For Evaluation for RGMP	Monitoring	Draft	653619	5555473	Sand and Gravel
	114	RG_MW22_FR13A	For Evaluation for RGMP	Monitoring	Draft	654995	5553975	Bedrock
	115	RG_MW22_FR13B	For Evaluation for RGMP	Monitoring	Draft	654995	5553975	Gravelly Silt
	116	RG_MW22_FR13C	For Evaluation for RGMP	Monitoring	Draft	654995	5553975	Sand
	117	RG_MW22_FR14A	For Evaluation for RGMP	Monitoring	Draft	655375	5553124	Bedrock
	118	RG_MW22_FR14B	For Evaluation for RGMP	Monitoring	Draft	655375	5553124	Sand
	119	RG_MW22_FR14C	For Evaluation for RGMP	Monitoring	Draft	655375	5553124	Gravel
	120	FR_MW20-01S	For Evaluation for SSGMP	Monitoring	Y	652228	5558245	Unconsolidated material
	121	FR_MW20-01D	For Evaluation for SSGMP	Monitoring	Y	652229	5558243	Bedrock (Spray River Fm)
Outff Out als	122	FR_MW20-02S	For Evaluation for SSGMP	Monitoring	Y	652176	5558374	Unconsolidated material
Swift Creek	123	FR_MW20-02D	For Evaluation for SSGMP	Monitoring	Y	652177	5558373	Bedrock (Spray River Fm)
	124	FR_MW20-03S	For Evaluation for SSGMP	Monitoring	Y	652187	5558166	Unconsolidated material
	125	FR_MW20-03D	For Evaluation for SSGMP	Monitoring	Y	652187	5558167	Bedrock (Spray River Fm)
	126	FR_MW22_CC1A	For Evaluation for RGMP / SSGMP	Monitoring	Draft	652434	5557526	Bedrock (Spray River Fm)
	127	FR_MW22_CC1B	For Evaluation for RGMP / SSGMP	Monitoring	Draft	652435	5557525	Silt and Bedrock
	128	FR_MW22_CC2A	For Evaluation for RGMP / SSGMP	Monitoring	Draft	652516	5557519	Bedrock (Spray River Fm)
Ontario Co.	129	FR_MW22_CC2B	For Evaluation for RGMP / SSGMP	Monitoring	Draft	652515	5557520	Bedrock (Spray River Fm)
Cataract Creek	130	FR_MW22_CC2C	For Evaluation for RGMP / SSGMP	Monitoring	Draft	652514	5557518	Overburden, Sand and Gravel
	131	FR_MW22_CC3A	For Evaluation for RGMP / SSGMP	Monitoring	Draft	652524	5557492	Bedrock (Spray River Fm)
	132	FR_MW22_CC3B	For Evaluation for RGMP / SSGMP	Monitoring	Draft	652524	5557491	Bedrock (Spray River Fm)
	133	FR_MW22_CC3C	For Evaluation for RGMP / SSGMP	Monitoring	Draft	652524	5557491	Silt
otes:	<u>I</u>			<u> </u>	1		l	ı

Notes:

Also considered For Evaluation as a Background well for the Regional Groundwater Monitoring Program (RGMP)

 $a: SSGMP\ denotes\ FRO\ Site-Specific\ Groundwater\ Monitoring\ Program;\ RGMP\ denotes\ Regional\ Groundwater\ Monitoring\ Program.$

b: Based on recommendations in 2022 SSGMP/RGMP Annual Report.

c: well decommissioned in 2022

[&]quot;-" denotes data not available.

Draft borehole logs are subject to change.

TABLE XIV - C: Summary of "For Evaluation" Wells - Installation Details (GHO)

Area	Count	Well ID	Monitoring Program ^a	Well Type	Final Borehole Log (Y/N)	Coord (UTM N	IAD 83)	Screened Formation
			5 5 4 % 6 000MD		.,	Easting	Northing	Dada-ali
	1	GH_MW_GHC_2A	For Evaluation for SSGMP	Monitoring	Y	653699	5546782	Bedrock
	2	GH_MW_GHC_3B	For Evaluation for SSGMP	Monitoring	Y	653615	5546508	Bedrock
	3	GH_MW_E1_1A	For Evaluation for SSGMP	Monitoring	Y	653158	5546210	Bedrock
	4	GH_POTW06	For Evaluation for RGMP	Supply	Y	653494 ^b	5545826 ^b	Sand and Gravel
	5	GH_MW_FR1A	For Evaluation for RGMP	Monitoring	Y	653461	5545629	Sand and Gravel
	6	GH_MW_FR1B	For Evaluation for RGMP	Monitoring	Y	653460	5545627	Silt and Clay
	7	GH_MW_FR2A	For Evaluation for RGMP	Monitoring	Y	654322	5545366	Sand and Gravel
	8	GH_MW_FR2B	For Evaluation for RGMP	Monitoring	Y	654323	5545365	Sand and Gravel
Greenhills Creek Watershed	9	GH_MW_FR3A	For Evaluation for RGMP	Monitoring	Y	653086	5545568	Bedded Sand and Gravel / Silt and Clay
(Fording River Valley)	10	GH_MW_FR3B	For Evaluation for RGMP	Monitoring	Y	653087	5545568	Bedded Sand and Gravel / Silt and Clay
	11	GH_MW_FR4A	For Evaluation for RGMP	Monitoring	Y	653169	5545821	Gravel, Silt and Clay
	12	GH_MW_FR4B	For Evaluation for RGMP	Monitoring	Y	653171	5545820	Sandy Silt and Clay
	13	GH_MW_FR5A	For Evaluation for RGMP	Monitoring	Y	653288	5545477	Sandy Gravel, some silt
	14	GH_MW_FR5B	For Evaluation for RGMP	Monitoring	Y	653287	5545478	Sand and Gravel, some silt
	15	GH_MW_FR6	For Evaluation for RGMP	Monitoring	Y	653861	5545301	Sand and Gravel, some silt
	16	GH_MW_FR7	For Evaluation for RGMP	Monitoring	Y	653753	5545432	Sand and Gravel, some silt
	17	GH_MW_FR8A	For Evaluation for RGMP	Monitoring	Y	654146	5545205	Sand bedded with fines
	18	GH_MW_FR8B	For Evaluation for RGMP	Monitoring	Y	654146	5545207	Sand and Gravel

Notes:

a: SSGMP denotes GHO Site-Specific Groundwater Monitoring Program; RGMP denotes Regional Groundwater Monitoring Program.

TABLE XIV - C: Summary of "For Evaluation" Wells - Installation Details (GHO)

Area	Count	Well ID	Monitoring Program ^a	Well Type	Final Borehole Log (Y/N)		inates IAD 83)	Screened Formation
					(1714)	Easting	Northing	
	19	RG_MW_LC3C	For Evaluation for SSGMP (MBI Well)	Monitoring	Y	648181	5552738	Clay and Gravel
	20	RG_MW_ER1A	For Evaluation for SSGMP (MBI Well)	Monitoring	Y	648900	5548591	Sand and Gravel
	21	RG_MW_ER1B	For Evaluation for SSGMP (MBI Well)	Monitoring	Y	648899	5548590	Gravel
	22	RG_MW_ER2A	For Evaluation for SSGMP (MBI Well)	Monitoring	Y	649044	5548451	Sandy Clay/Silty Sand
	23	RG_MW_ER2B	For Evaluation for SSGMP (MBI Well)	Monitoring	Y	649043	5548451	Gravel
	24	RG_MW_ER3A	For Evaluation for SSGMP (MBI Well)	Monitoring	Y	648288	5550080	Sand and Gravel
	25	RG_MW_ER3B	For Evaluation for SSGMP (MBI Well)	Monitoring	Y	648288	5550080	Sand and Gravel
Greenhills Creek Watershed	26	RG_MW_ER4A	For Evaluation for SSGMP (MBI Well)	Monitoring	Y	648300	5549330	Sand and Gravel
(Fording River Valley)	27	RG_MW_ER4B	For Evaluation for SSGMP (MBI Well)	Monitoring	Y	648300	5549329	Sand and Gravel
	28	RG_MW_ER5A	For Evaluation for SSGMP (MBI Well)	Monitoring	Y	648692	5549074	Bedrock
	29	RG_MW_ER5B	For Evaluation for SSGMP (MBI Well)	Monitoring	Y	648691	5549074	Sand and Gravel
	30	RG_MW_ER6A	For Evaluation for SSGMP (MBI Well)	Monitoring	Y	648580	5549334	Bedrock
	31	RG_MW_ER6B	For Evaluation for SSGMP (MBI Well)	Monitoring	Y	648580	5549333	Sand and Gravel
	32	RG_MW_ER7A	For Evaluation for SSGMP (MBI Well)	Monitoring	Y	648580	5549334	Bedrock
	33	RG_MW_ER7B	For Evaluation for SSGMP (MBI Well)	Monitoring	Y	648580	5549333	Sand and Gravel
	34	RG_MW_ER8	For Evaluation for SSGMP (MBI Well)	Monitoring	Y	648580	5549333	Sand and Gravel

Notes

a: SSGMP denotes GHO Site-Specific Groundwater Monitoring Program; RGMP denotes Regional Groundwater Monitoring Program.

TABLE XIV - C: Summary of "For Evaluation" Wells - Installation Details (GHO)

Area	Count	Well ID	Monitoring Program ^a	Well Type	Final Borehole Log (Y/N)		linates IAD 83)	Screened Formation
					, ,	Easting	Northing	
	35	RG_MW_ER9A	For Evaluation for SSGMP (MBI Well)	Monitoring	Y	648386	5551764	Sand, some silt
	36	RG_MW_ER9B	For Evaluation for SSGMP (MBI Well)	Monitoring	Y	648392	5551766	Sand and Gravel
	37	RG_MW_ER10A	For Evaluation for SSGMP (MBI Well)	Monitoring	Y	648928	5548902	Sandy Gravel
	38	RG_MW_ER10B	For Evaluation for SSGMP (MBI Well)	Monitoring	Y	648928	5548903	Sandy Gravel
	39	RG_MW_ER11A	For Evaluation for SSGMP (MBI Well)	Monitoring	Y	648840	5548753	Gravelly Silt
	40	RG_MW_ER11B	For Evaluation for SSGMP (MBI Well)	Monitoring	Y	648840	5548754	Sand and Gravel
Elk River Valley	41	GH_MW_LC1-A	For Evaluation for SSGM/RGMP	Monitoring	Y	648131	5552871	Silty Gravel
	42	GH_MW_LC1-B	For Evaluation for SSGM/RGMP	Monitoring	Y	648131	5552870	Sand and Gravel
	43	GH_MW_LC2-A	For Evaluation for SSGM/RGMP	Monitoring	Y	648158	5552978	Sand and Gravel
	44	GH_MW_LC2-B	For Evaluation for SSGM/RGMP	Monitoring	Y	648159	5552979	Sand and Gravel
	45	GH_MW_WC1-A	For Evaluation for SSGM/RGMP	Monitoring	Y	647987	5552217	Sand and Gravel
	46	GH_MW_WC1-B	For Evaluation for SSGM/RGMP	Monitoring	Y	647987	5552217	Sand and Gravel
	47	GH_MW_WC1-C	For Evaluation for SSGM/RGMP	Monitoring	Y	647985	5552218	Sand and Gravel

Notes:

a: SSGMP denotes GHO Site-Specific Groundwater Monitoring Program; RGMP denotes Regional Groundwater Monitoring Program.

TABLE XIV - D: Summary of "For Evaluation" Wells - Installation Details (LCO)

Area	Count	Well ID	Monitoring Program ^a	Well Type	Final Borehole Log (Y/N/Draft)		linates IAD 83)	Screened Formation
						Easting	Northing	
LCO Phase II	1	LC_MW22_DCDS-1A	For Evaluation for SSGMP	Monitoring	Z	-	-	-
Dry Creek	2	LC_MW22_DCDS-1C	For Evaluation for SSGMP	Monitoring	N	-	-	-
	3	LC_MW_LC1-1A	For Evaluation for SSGMP	Monitoring	Y	661955	5538176	Gravel
LCO Phase I	4	LC_MW22_LC1-1ABR	For Evaluation for SSGMP	Monitoring	Draft	661957	5538175	Bedrock (Shale)
Upper Line Creek (Tornado Creek)	5	LC_MW_LC1-2A	For Evaluation for SSGMP/RGMP	Monitoring	Y	662008	5538214	Gravel, Sand, Cobbles and Sand
	6	LC_MW_LC1-3A	For Evaluation for SSGMP	Monitoring	Y	661990	5538247	Gravel, Sand
	7	LC_MW_WLC-1A	For Evaluation for SSGMP	Monitoring	Y	659753	5532228	Gravel
West Line Creek	8	LC_MW_WLC-2A	For Evaluation for SSGMP	Monitoring	Y	659869	5532370	Gravel
	9	LC_MW_WLC-3A	For Evaluation for SSGMP	Monitoring	Y	659583	5532281	Gravel
	10	RG_MW_LC4A	For Evaluation for RGMP	Monitoring	Y	655533	5528823	Bedrock - shale
	11	RG_MW_LC4B	For Evaluation for RGMP	Monitoring	Y	655535	5528823	Sand and Gravel
	12	LC_MW_ERX1A	For Evaluation for SSGMP	Monitoring	Y	655036	5526827	Bedrock - shale
Process Plant	13	LC_MW_ERX1B	For Evaluation for SSGMP	Monitoring	Y	655035	5526832	Silty Gravel
FIOCESS FIGIIL	14	LC_MW_SRD1A	For Evaluation for SSGMP	Monitoring	Y	653604	5526818	Silty Clay
	15	LC_MW_SRD1B	For Evaluation for SSGMP	Monitoring	Y	653601	5526820	Sand and Gravel
	16	LC_MW_SRD2A	For Evaluation for SSGMP	Monitoring	Y	653885	5525984	Sandy Clay
	17	LC_MW_SRD2B	For Evaluation for SSGMP	Monitoring	Y	653885	5525983	Gravel

Notes

Draft borehole data is subject to change.

Also considered For Evaluation as a Background well for the Regional Groundwater Monitoring Program (RGMP)

a: SSGMP denotes LCO Site-Specific Groundwater Monitoring Program; RGMP denotes Regional Groundwater Monitoring Program.

[&]quot;-" denotes data not available.

TABLE XIV - E: Summary of "For Evaluation" Wells - Installation Details (EVO)

Area	Count	Well ID	Well ID Monitoring Program ^a Well Type		Final Borehole Log (Y/N/Draft)		linates IAD 83) Northing	Screened Formation
Erickson Creek and Michel Creek Downstream of	1	EV_MW_EC3A	For Evaluation for SSGMP	Monitoring	Y	660840	5506540	Sand and Gravel
Erickson Creek (Study Area 10)	2	EV_MW_EC3B	For Evaluation for SSGMP	Monitoring	Y	660842	5506516	Sand
	3	EV_MW22_RCSgw_1A	For Evaluation for SSGMP	Monitoring	Draft	655899	5509281	Sand
Road Crew Shop	4	EV_MW22_RCSgw_1B	For Evaluation for SSGMP	Monitoring	Y	655902	5509281	Sand
	5	EV_MW22_RCSgw_1C	For Evaluation for SSGMP	Monitoring	Y	655902	5509280	Sand
Near BCgw	6	EV_MW22_BCgw_1A	For Evaluation for SSGMP	Monitoring	Y	655385	5509655	Gravel
Near Bogw	7	EV_MW22_BCgw_1B	For Evaluation for SSGMP	Monitoring	Y	655386	5509656	Sand and Gravel
Near MC2B	8	EV_MW22_MC2C	For Evaluation for SSGMP	Monitoring	Y	654751	5510511	Gravel
MC3 (D1)	9	EV_MW22_MC3B	For Evaluation for SSGMP	Monitoring	Y	653660	5510983	Sand and Gravel
Grave Creek	10	EV_MW22_GV5A	For Evaluation for SSGMP	Monitoring	Draft	659300	5523750	Sand and Gravel
Grave Greek	11	EV_MW22_GV5B	For Evaluation for SSGMP	Monitoring	Draft	659299	5523749	Sand and Gravel

Notes:

a: SSGMP denotes EVO Site-Specific Groundwater Monitoring Program

Draft borehole data is subject to change.

Also considered For Evaluation as a Background well for the Regional Groundwater Monitoring Program (RGMP)

Borehole Logs

Background Borehole Logs – Wells For Evaluation
Fording River Operations Borehole Logs – Wells For Evaluation
Greenhills Operations Borehole Logs – Wells For Evaluation
Line Creek Operations Borehole Logs – Wells For Evaluation
Elkview Operations Borehole Logs – Wells For Evaluation

Background Borehole Logs – Wells for Evaluation

Borehole No: LC_MW_HC-1A **Teck Coal Limited** Project: LCO Phase 2 Water Treatment Project No: ENW.GENV03056-01 Location: Horseshoe Creek Ground Elev: 1740.33 m UTM: 663089.16 E; 5535741.73 N; Z 11 Elk Valley, British Columbia Moisture Content (%) LC_MW_HC-1A Sample Type SOIL SYMBOL Elevation (m) Soil Depth (m) SC Description Plastic Moisture Limit Content Limit 80 20 40 60 GRAVEL (FILL) - clayey, moist, loose, brown 1740 GC - (Rock corrected maximum density = 2010 kg/m³) mm) 12.2 1739 - 75 mm thick clay layer - rootlets, wood GRAVEL - sandy, silty, trace clay, angular gravel, dry, loose, grey to light brown Sonic (102 GM - cobbles and boulders 1738 8.8 13.9 3 CLAY - silty, trace coarse grained sand, wet, loose 1737 MUDSTONE (COBBLES AND BOULDERS) - powdery, dry, brown **Ò**MUDSTONE 0.8 END OF BOREHOLE (4.11 metres) 1736 water - 3.01 metres below ground - dry on December 14, 2021 5 Monitoring well installed to 3.05metres 1735 Monitoring well diameter: 55 mm Screened Interval: 1.83 - 3.05 metres below ground 020 Slot Size 1734 10/20 Filter Sand Top of sand: 1.22 metres below ground Top of PVC: 1741.238 masl 1733 8 1732 9 1731 10 1730 11 1729 12 1728 13 1727 14 1726 15 1725 16 1724 17 1723 18 1722 19 1721 Completion Depth: 4.11 m Contractor: Mud Bay Drilling **TETRA TECH** Equipment Type: TerraSonic 150CC Rotosonic Drill Rig Start Date: 2021 December 7 Logged By: Carl Forkheim Completion Date: 2021 December 7 Reviewed By: Stephan Klump Page 1 of 1

Borehole No: LC_MW_HC-2A **Teck Coal Limited** Project: LCO Phase 2 Water Treatment Project No: ENW.GENV03056-01 Location: Horseshoe Creek Ground Elev: 1726.69 m Elk Valley, British Columbia UTM: 662979.57 E; 5535813.54 N; Z 11 Moisture Content (%) LC_MW_HC-2A Sample Type SOIL SYMBOL Elevation (m) Soil Depth (m) SC Description Plastic Moisture Liquid Content Limit Limit 20 40 60 80 SAND AND GRAVEL (FILL) - roots, branches, cobbles, very fine grained sand, angular cobbles to 125 GW mm diameter, damp 26.7 1726 - (Rock corrected maximum density = 2255 kg/m3) COBBLES - gravelly, sandy, trace silt and clay, very fine sand, angular to subangular gravel, well graded, 1725 4.7 1724 3 GW 1723 mm) 1722 (102 5 9.3 - clayey, cobbles to 125 mm diameter 1721 BOULDER - crushed by bit, dry GC GRAVEL - clayey, sandy, silty, some cobbles, angular gravel, fine grained sand, wet, brown 10.7 CL-CI - at 6.25 m, CLAY - silty, sandy, gravelly, gravel to 40 mm diameter, wet, firm to stiff, light brown - (Gravel - 45%; Sand - 29%; Silt & Clay - 26%) 1718 1718 - 450 mm thick clayey gravel layer GC Dec15/27 - increasing silt and clay content 14.6 9 SILTSTONE AND MUDSTONE (BEDROCK) - dry, hard SILTSTONE MUDSTONE END OF BOREHOLE (10.21 metres) water - 7.47 metres below ground on December 15, 2021 1716 11 Monitoring well installed to 8.50 metres Monitoring well diameter: 55 mm Screened Interval: 5.45 - 8.50 metres below ground 1715 020 Slot Size 12 10/20 Filter Sand Top of sand: 5.79 metres below ground 1714 Top of PVC: 1727.500 masl 13 1713 14 1712 15 1711 16 1710 17 1709 18 1708 19 1707 Contractor: Mud Bay Drilling Completion Depth: 10.21 m **TETRA TECH** Equipment Type: TerraSonic 150CC Rotosonic Drill Rig Start Date: 2021 December 8 Logged By: Carl Forkheim Completion Date: 2021 December 8 Reviewed By: Stephan Klump Page 1 of 1

Borehole No: LC_MW_HC-3A **Teck Coal Limited** Project: LCO Phase 2 Water Treatment Project No: ENW.GENV03056-01 Location: Horseshoe Creek Ground Elev: 1725.24 m UTM: 662799.92 E; 5535787.26 N; Z 11 Elk Valley, British Columbia Moisture Content (%) LC_MW_HC-3A Sample Type SOIL SYMBOL Elevation (m) Soil Depth (m) SC Description Plastic Moisture Liquid Content Limit 20 40 60 80 GW GRAVEL (FILL) - roots 1725 No recovery 1724 BOULDER - quartzite, hard 2 1723 No recovery 3 GRAVEL AND CLAY - silty, some fine grained sand, some cobbles, angular gravel, damp, brown 1722 1721 GM 5 1720 102 mm CLAY - silty, gravelly, trace coarse grained sand, angular gravel, damp, soft to firm, medium plastic, Dec15/13 - 150 mm diameter cobble Sonic 1717 9 - wood chunk 1716 - increased gravel to 600 mm 10 1715 - dry cobbles for 300 mm 11 1714 - increasing clay content 12 1713 13 - some gravel, trace cobbles, no visible sand or silt, dry to damp, stiff, black 1712 - dry, hard 14 1711 MUDSTONE (BEDROCK) - clayey, weathered, brown 15 . ŽXUDSTONE 1710 END OF BOREHOLE (15.85 metres) 16 1709 water - 6.95 metres below ground on December 16, 2021 Monitoring well installed to 7.16 metres Monitoring well diameter: 55 mm Screened Interval: 4.11 - 7.16 metres below ground 1708 020 Slot Size 10/20 Filter Sand 18 Top of sand: 3.35 metres below ground 1707 Top of PVC: 1726.019 masl 19 1706 Completion Depth: 15.85 m Contractor: Mud Bay Drilling **TETRA TECH** Equipment Type: TerraSonic 150CC Rotosonic Drill Rig Start Date: 2021 December 9 Logged By: Carl Forkheim Completion Date: 2021 December 9 Reviewed By: Stephan Klump Page 1 of 1

	ONIO T ATZA	T T T T T	т		Client oal Lin	nited	Borehole No. : RG_BH_AC1A				
V)	SNC+LAVA	LIN	Regional		cation dwate	r Monite	oring			PAGE 1 OF 2	
rilling oreho	Contractor Mud Bay Drilling Co. Ltd. Method Vibratory Sonic ole Dia. (m) 0.15 oltted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5502845.	ace Elev. (m) ng Elev. (m)		n/a 1303.926 1304.821 Easting: 663652.864			Project Number: Borehole Logged Date Drilled: Log Typed By:	683032 By: AH 2021 09 13 VL	
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Lev □ Water Lev • NAPL □ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: RG_MW_AC1A	
De	Soil Des	cription		Stra	Sam	Sam	Bo	₩ % 10	0 ¹ 10 ² 10 ³ 10 ⁴	П	
1-	SAND and GRAVEL, fine to coa coarse gravel, subrounded, traccontains organic material.	rse grained sa e silt, brown, k	and, fine to pose, damp,		\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\			60			
2-	GRAVEL, fine to coarse, subrou coarse grained, brown, loose, we	et.						70			
3-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1	At 2.7 m - containing cobbles (> material.	i su mm), con	ains organic		\$\$\$\$\$\$\$\$\$\$\$\$\$\$						
5-1	SAND, fine grained, trace silt, po									BENTONITE	
7	SAND, fine to medium grained, brown, dense, wet.	trace silt, poor	ly graded,		\ \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\			100			
9-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1	At 8.5 m - 100 mm seam of lami sand.	nated silt and	fine grained					100			
				NOT	ES						

	CRIC T ATTA	T T	T	eck C	Client oal Lir	nited			Borehol	e No. : RG_BH_AC1A
7))	SNC+LAVA	LLIN	Regional		cation ndwate		oring			PAGE 2 OF 2
Drilling Boreh	g Contractor Mud Bay Drilling Co. Ltd. y Method Vibratory Sonic ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5502845.	. (m) ´	130	3.926 4.821 ting: 6636	52.86	64	Project Number: Borehole Logged Date Drilled: Log Typed By:	683032 I By: AH 2021 09 13 VL
Metres	Drilling Legend Sample Interval Vibrasonic	▼ Water Lev		y Plot	erval	mber	nt	y	 Reading within indicated scale Reading outside indicated scale 	Solid PVC Slotted PVC
Depth in Metres		NAPL NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Soil Vapour (ppm)	Well Name 1: RG_MW_AC1A
	Soil Des	cription		Stra	Sar	Sar	Big	% 1	0 ¹ 10 ² 10 ³ 10	
11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 18 - 18 - 18 - 18 - 18 - 18	SILTY CLAY, grey, stiff, medium SAND, fine to medium grained, t SILTY CLAY, trace sand, fine gramedium plasticity, wet. Bottom of hole at 15.2 m.	race silt, brow	n, firm, wet.					100		RG_MW_AC1A SAND
				NOT	TES					

11)	CRICAT ANIA	TINI	Te		Client oal Lin	nited		Borehole	Borehole No. : RG_BH_AC1B				
IJ	SNC+LAVA		Regional		cation ndwate	r Monite	oring		F	PAGE 1 OF 1			
rilling oreho	Contractor Mud Bay Drilling Co. Ltd. Method Vibratory Sonic le Dia. (m) 0.15 otted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5502844.8	. (m) ´	1304	3.989 1.831 ing: 6636	654.38	7	Project Number: Borehole Logged I Date Drilled: Log Typed By:	683032 By: MM/AH 2021 09 14 VL			
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Le ∇ Water Le • NAPL NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: RG_MW_AC1B			
2	Soil Des	cription		Stra	San	San	Blc	₩ % 1	0 ¹ 10 ² 10 ³ 10 ⁴	П			
0 11 2 3 3 4	SAND and GRAVEL, fine to coaccoarse gravel, subrounded, trac- graded, grey-brown, loose, dam At 1.2 m - organic material, woo At 3.7 m - large cobbles (200 miduring drilling.	e silt, containir b. d/tree root.	ediment washed					50		DOM CONCRETE BENTONITE RG_MW_AC1E			
8	Bottom of hole at 6.1 m.			NOT	TEQ.								
				NOT	ES								

Fording River Operations Borehole Logs – Wells for Evaluation

			NA			T			
M CRIC.	. T AX7A T TRI	Teck C	Client oal Limi	ited	Borehole No. : FR_BH22_HC1_1A				
) SINC	·LAVALIN	FRO - Henre	cation tta Cree	k Valley			PAGE 1 OF 2		
ing Contractor Mud B ing Method Vibrato ehole Dia. (m) e/Slotted Pipe Dia. (m)	ory Sonic 0.15	Date Monitored Ground Surface Elev. (m) Top of Casing Elev. (m) Northing: 5566416.227	2022 (1718. 1719. Eastir	443	.660	Project Number: Borehole Logged Date Drilled: Log Typed By:	692207 By: MTB 2022 08 18 LC		
Drilling Legend Sample Vibrase	C II ILCI VAI	1 9	Sample Interval Core Run	Sample Number		Page Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: FR_MW22_HC1_		
i	Soil Description	Stra	Sar Cor	Sar	5 % 10	1 10² 10³ 10⁴			
gravel, subround graded, dark bro	nd GRAVEL, fine to coarse s ded to subangular, occasion own, loose, dry.				100				
CLAY, some silisubangular, bro	t, trace gravel, fine to coarse wn, firm, high plasticity, dry.	e, subrounded to			100				
BEDROCK, coa	il, black, dry.				100		BENTONTE		
BEDROCK, dar Between 7.0 m	k grey, siltstone, dry. and 7.3 m - dry.				100				
9-	and 9.5 m - moist.				100				

	CRIC T ATTA	TTNI	Te		Client oal Lin	nited			Borehole	No. : FR_BH22_HC1_1A
 V)	SNC+LAVA	LIN	FRO - I		cation tta Cre	ek Valle	y			PAGE 2 OF 2
Drilling Boreho	g Contractor Mud Bay Drilling Co. Ltd. g Method Vibratory Sonic ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5566416.2	(m)	1718 1719	2 08 19 3.443 9.269 ing: 6522	232.66	60	Project Number: Borehole Logged Date Drilled: Log Typed By:	
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Le ⊽ Water Le • NAPL ◇ NAPL	vel 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: FR_MW22_HC1_1A
De	Soil Desc	cription		Straf	Sam	Sam	Blo	∞ % 1	0 ¹ 10 ² 10 ³ 10	
13-14-15-18-19-18-19-18-18-18-18-18-18-18-18-18-18-18-18-18-	Between 13.7 - 14.3 m - wet. Between 15.5 - 15.9 m - wet. Bottom of hole at 15.9 m.	•	od)					100		BENTONITE BENTONITE BENTONITE
20-										
20-				NOT	ES					

DRILL HOLE # FR_MW-HC1A **Page** 1 of 5 Project: Henretta Site Investigation Project No.: 0797032 Location: Henretta Spoil Drill Designation: Gus Pech Sonicor 50 Start Date: 30/07/2021 Survey Method: Handheld GPS Coordinates (m): 652,261E, 5,566,589N Drilling Contractor: Earth Drilling Finish Date: 31/07/2021 Ground Elevation (m): Drill Method: Sonic Final Depth of Hole (m): 44.2 Datum: UTM NAD83, Zone 11N Core: 97.9 mm Depth to Top of Rock (m): 41.1 Dip (degrees from horizontal): -90 Fluid: Water Logged by: EK Casing: 152.4 mm OD Cased To (m): 44.2 Reviewed by: TKW SPT/LPT Blows Per 150mm SPT/LPT (Blows/300mm) (E) Sample Type Lab Tests Sample No. Depth (m) Lithological Description Elevation and Backfill Details Moisture Content & Comments Atterberg Limits W_P% W% ×—— 0 ——> 20 40 60 80 -0 COBBLES (0.0 m to 1.5 m) Gravelly, some silt, well graded, loose, angular, brown, dry, trace [WASTE ROCK] 0.8 m to 1.1 m - COAL Fractured, low grade, black, dry. GRAVEL (1.5 m to 4.3 m)
Some silt, trace sand, well graded, angular to subangular, brown, dry, trace coal. 2 [WASTE ROCK] 3 3.0 m - Becomes GRAVEL, trace clay, trace cobble, dark grey. COAL (4.3 to 4.6 m) Fractured, black, dry, friable. SAND (4.6 m to 6.5 m) Gravelly, trace silt, well graded, angular, brown, dry [WASTE ROCK] 5 6 ₿ G01 COAL (6.5 m to 7.6 m)
Pulverized, loose, dry, black. 7 BOULDER (7.6 m to 9.4 m) Pulverized, loose, brown to grey, dry. [WASTE ROCK] 8 9 GRAVEL (9.4 m to 11.9 m) Trace sand, trace cobble, trace silt, well graded, brown to grey, angular, dry, trace staining. (Continued on next page) **Teck** BGC ENGINEERING INC.

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DRILL HOLE # FR_MW-HC1A Page 2 of 5 Project: Henretta Site Investigation Project No.: 0797032 Location: Henretta Spoil Drill Designation: Gus Pech Sonicor 50 Start Date: 30/07/2021 Survey Method: Handheld GPS Coordinates (m): 652,261E, 5,566,589N Drilling Contractor: Earth Drilling Finish Date: 31/07/2021 Ground Elevation (m): Drill Method: Sonic Final Depth of Hole (m): 44.2 Datum: UTM NAD83, Zone 11N Core: 97.9 mm Depth to Top of Rock (m): 41.1 Dip (degrees from horizontal): -90 Fluid: Water Logged by: EK Casing: 152.4 mm OD Cased To (m): 44.2 Reviewed by: TKW Backfill
Details
SPT/LPT Blows
Per 150mm SPT/LPT (Blows/300mm) Sample Type Elevation (m) Lab Tests Sample No. Depth (m) Lithological Description and Moisture Content & Comments Atterberg Limits W_P% W% ×—— 0 ——> 20 40 60 80 -10 GRAVEL (9.4 m to 11.9 m) Trace sand, trace cobble, trace silt, well graded, brown to grey, angular, dry, trace staining.

[WASTE ROCK] 11.5 m - Some cobbles. GRAVEL (11.9 m to 30.7 m) 12 Some sand, trace silt, trace cobble, well graded, black, moist, trace [WASTE ROCK] G02 13 ♡ 14.5 m - Becomes brown. 15 15.7 m - Becomes some clay, subrounded, trace staining. 16 • G03 16.7 m - Some cobbles. 17 18 - 19 (Continued on next page) **Teck**

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DRILL HOLE # FR_MW-HC1A **Page** 3 of 5 Project: Henretta Site Investigation Project No.: 0797032 Location: Henretta Spoil Start Date: 30/07/2021 Drill Designation: Gus Pech Sonicor 50 Survey Method: Handheld GPS Coordinates (m): 652,261E, 5,566,589N Drilling Contractor: Earth Drilling Finish Date: 31/07/2021 Ground Elevation (m): Drill Method: Sonic Final Depth of Hole (m): 44.2 Datum: UTM NAD83, Zone 11N Core: 97.9 mm Depth to Top of Rock (m): 41.1 Dip (degrees from horizontal): -90 Fluid: Water Logged by: EK Casing: 152.4 mm OD Cased To (m): 44.2 Reviewed by: TKW Backfill
Details
SPT/LPT Blows
Per 150mm SPT/LPT (Blows/300mm) Sample Type Elevation (m) Lab Tests Sample No. Depth (m) Lithological Description and Moisture Content & Comments Atterberg Limits W_P% W% ×—— 0 ——> 20 40 60 80 -20 GRAVEL (11.9 m to 30.7 m) Some sand, trace silt, trace cobble, well graded, black, moist, trace [WASTE ROCK] 21 22 22.7 m - Becomes sandy, some silt, trace cobble, subrounded to subangular, compact. 23 • G04 24 25 25.1 m - Fractured boulder, dry, grey. 26 27 28 28.3 m - Becomes black, some coal. 29 (Continued on next page) **Teck**

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DRILL HOLE # FR_MW-HC1A Page 4 of 5 Project: Henretta Site Investigation Project No.: 0797032 Location: Henretta Spoil Drill Designation: Gus Pech Sonicor 50 Start Date: 30/07/2021 Survey Method: Handheld GPS Coordinates (m): 652,261E, 5,566,589N Drilling Contractor: Earth Drilling Finish Date: 31/07/2021 Ground Elevation (m): Drill Method: Sonic Final Depth of Hole (m): 44.2 Datum: UTM NAD83, Zone 11N Core: 97.9 mm Depth to Top of Rock (m): 41.1 Dip (degrees from horizontal): -90 Fluid: Water Logged by: EK Casing: 152.4 mm OD Cased To (m): 44.2 Reviewed by: TKW Backfill
Details
SPT/LPT Blows
Per 150mm SPT/LPT (Blows/300mm) Sample Type Elevation (m) Lab Tests Sample No. Depth (m) Lithological Description and Moisture Content & Comments Atterberg Limits W_P% W% ×—— 0 ——> 20 40 60 80 -30 GRAVEL (11.9 m to 30.7 m) Some sand, trace silt, trace cobble, well graded, black, moist, trace [WASTE ROCK] BOULDER (30.7 m to 31.2 m) Fractured, dry, grey. 31 SAND AND GRAVEL (31.2 m to 32.0 m) Trace cobble, trace silt, well graded, loose, subangular, brown grey, drv. some coal [WASTE ROCK] 32 GRAVEL (32.0 m to 37.3 m)
Trace cobble, some sand, well graded, angular to subangular, dark brown, wet. [WASTE ROCK] 33 34 35 36 ₹ G05 Sample G05 (35.9 m to 36.1 m): Grain size analysis - Gravel 86%, Sand 14%, Fines 0%. 37 GRAVEL (37.3 m to 39.0 m) Silty, trace cobble, trace sand, rounded to subrounded, black, moist, some orange, brown and yellow staining, humus rich.

[POSSIBLE ORIGINAL GROUND SURFACE] 38 39 BOULDER (39.0 m to 39.9 m) Pulverized, grey to white, dry. (Continued on next page)

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Logged by: EK

Fluid: Water

IJр	(aegi	rees fro	om hor	casing: 152.4 mm OD	Case	d To ((m): 4	14.2		Logged by: EK Reviewed by: TKW	
9 Depth (m)	Sample Type	Sample No.	Symbol	Lithological Description	Backfill Details	SPT/LPT Blows Per 150mm	N		ntent & imits W _L %	Lab Tests and Comments	Elevation (m)
41 42 43	•	G06		SAND AND GRAVEL (39.9 m to 41.1 m) Silty, subrounded to subangular, loose, black, wet, trace weathering, humus rich. BEDROCK (41.1 m to 44.2 m) Dry, friable, grey.						Sample G06 (40.7 m to 40.9 m): Grain size analysis - Gravel 37%, Sand 40%, Fines 22%.	
45 46 47				END OF DRILL HOLE AT 44.2 m Notes: 1. Drill hole was terminated after encountering bedrock. 2. The moisture content, fines content, and in-situ density of the soil may be altered by heat and vibration generated by the sonic drilling method. 3. Interpretation of bedrock type is not provided as the rock was pulverized by the sonic drilling method. 4. Monitoring well (FR_MW-HC1A) was installed with a 50.8 mm diameter, schedule 40 solid PVC from surface to 39.5 mbgs, and a 0.25 mm slot schedule 40 PVC screen from 39.5 mbgs to 41.0 mbgs. 5. The monitoring well (FR_MW-HC1A) was installed with a 50.8 mm diameter, schedule 40 solid PVC screen from 39.5 mbgs to 41.0 mbgs. and from 41.5 m bgs, bentonite chips from surface to 39.2 m bgs, and from 41.5 m bgs to 44.2 m bgs. 6. The monitoring well was completed at surface with 0.85 m PVC stickup and a protective steel monument cemented in place. 7. The water level was measured at 30.1 m bgs on August 2, 2021. 8. Borehole collar coordinates are from handheld GPS (Garmin GPSmap 64x), uncertainty +/- 3 m.							
48											
	<u> </u>	BG	C EI	VGINEERING INC. Print Date: 23/09/2	021					Teck	

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Dip (degrees from horizontal): -90

Page 1 of 4 DRILL HOLE # FR_MW-HC1B Project: Henretta Site Investigation Project No.: 0797032 Location: Henretta Spoil Start Date: 01/08/2021 Drill Designation: Gus Pech Sonicor 50 Survey Method: Handheld GPS Coordinates (m): 652,262E, 5,566,590N Drilling Contractor: Earth Drilling Finish Date: 01/08/2021 Ground Elevation (m): Drill Method: Sonic Final Depth of Hole (m): 36.3 Datum: UTM NAD83, Zone 11N Core: 97.9 mm Depth to Top of Rock (m): N/A Dip (degrees from horizontal): -90 Fluid: Water Logged by: EK Casing: 152.4 mm OD Cased To (m): 36.3 Reviewed by: TKW Backfill
Details
SPT/LPT Blows
Per 150mm SPT/LPT (Blows/300mm) Sample Type Elevation (m) Lab Tests Sample No. Depth (m) Lithological Description and Symbol Moisture Content & Comments Atterberg Limits W₂% W% W₁% ×—— 0 ——> 20 40 60 80 -0-[WASTE ROCK]
Refer to twin hole FR_MW-HC1A log for detailed lithological 2 3 5 6 7 8 - 9 (Continued on next page) **Teck** BGC ENGINEERING INC. Print Date: 23/09/2021

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Page 2 of 4 DRILL HOLE # FR_MW-HC1B Project: Henretta Site Investigation Project No.: 0797032 Location: Henretta Spoil Start Date: 01/08/2021 Drill Designation: Gus Pech Sonicor 50 Survey Method: Handheld GPS Coordinates (m): 652,262E, 5,566,590N Drilling Contractor: Earth Drilling Finish Date: 01/08/2021 Ground Elevation (m): Drill Method: Sonic Final Depth of Hole (m): 36.3 Datum: UTM NAD83, Zone 11N Core: 97.9 mm Depth to Top of Rock (m): N/A Dip (degrees from horizontal): -90 Fluid: Water Logged by: EK Casing: 152.4 mm OD Cased To (m): 36.3 Reviewed by: TKW Backfill
Details
SPT/LPT Blows
Per 150mm SPT/LPT (Blows/300mm) Sample Type Elevation (m) Lab Tests Sample No. Depth (m) Lithological Description and Symbol Moisture Content & Comments Atterberg Limits W₂% W% W₁% ×—— 0 ——> 20 40 60 80 -10 [WASTE ROCK]
Refer to twin hole FR_MW-HC1A log for detailed lithological 12 13 14 15 16 17 18 - 19 (Continued on next page) **Teck** BGC ENGINEERING INC.

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DRILL HOLE # FR_MW-HC1B Page 3 of 4 Project: Henretta Site Investigation Project No.: 0797032 Location: Henretta Spoil Start Date: 01/08/2021 Drill Designation: Gus Pech Sonicor 50 Survey Method: Handheld GPS Coordinates (m): 652,262E, 5,566,590N Drilling Contractor: Earth Drilling Finish Date: 01/08/2021 Ground Elevation (m): Drill Method: Sonic Final Depth of Hole (m): 36.3 Datum: UTM NAD83, Zone 11N Core: 97.9 mm Depth to Top of Rock (m): N/A Dip (degrees from horizontal): -90 Fluid: Water Logged by: EK Casing: 152.4 mm OD Cased To (m): 36.3 Reviewed by: TKW Backfill
Details
SPT/LPT Blows
Per 150mm SPT/LPT (Blows/300mm) Sample Type Elevation (m) Lab Tests Sample No. Depth (m) Lithological Description and Symbol Moisture Content & Comments Atterberg Limits W₂% W% W₁% ×—— 0 ——> 20 40 60 80 -20 [WASTE ROCK]
Refer to twin hole FR_MW-HC1A log for detailed lithological 21 22 23 24 25 26 27 28 29 (Continued on next page) **Teck** BGC ENGINEERING INC.

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DRILL HOLE # FR_MW-HC1B Page 4 of 4 Project: Henretta Site Investigation Project No.: 0797032 Location: Henretta Spoil Drill Designation: Gus Pech Sonicor 50 Start Date: 01/08/2021 Survey Method: Handheld GPS Coordinates (m): 652,262E, 5,566,590N Drilling Contractor: Earth Drilling Finish Date: 01/08/2021 Ground Elevation (m): Drill Method: Sonic Final Depth of Hole (m): 36.3 Datum: UTM NAD83, Zone 11N Core: 97.9 mm Depth to Top of Rock (m): N/A Dip (degrees from horizontal): -90 Fluid: Water Logged by: EK Casing: 152.4 mm OD Cased To (m): 36.3 Reviewed by: TKW Backfill
Details
SPT/LPT Blows
Per 150mm SPT/LPT (Blows/300mm) Sample Type Elevation (m) Lab Tests Sample No. Depth (m) Lithological Description and Symbol Moisture Content & Comments Atterberg Limits W₂% W% W₁% ×—— 0 ——> 20 40 60 80 -30 [WASTE ROCK] Refer to twin hole FR_MW-HC1A log for detailed lithological 31 32 33 34 35 36 END OF DRILL HOLE AT 36.3 m 1. Monitoring well (FR MW-HC1B) was installed with a 50.8 mm 37 diameter, schedule 40 solid PVC from surface to 32.9 m bgs, and a 0.25 mm slot schedule 40 PVC screen from 32.9 m bgs to 36 m bgs. 2. The monitoring well was completed with 10-20 filter sand from 32.6 m bgs to 36.3 m bgs, and bentonite chips from surface to 32.6 m bgs.
3. The monitoring well was completed at surface with 0.79 m PVC stickup and a protective steel monument cemented in place.
4. The water level was measured at 30.3 m bgs on August 2, 2021. 38 5. Borehole collar coordinates are from handheld GPS (Garmin GPSmap 64x), uncertainty +/- 3 m. 39

DRILL HOLE # FR_MW-HC2A Page 1 of 7 Project: Henretta Site Investigation Project No.: 0797032 Location: Henretta Spoil Drill Designation: Gus Pech Sonicor 50 Start Date: 27/07/2021 Survey Method: Handheld GPS Coordinates (m): 652,352E, 5,566,598N Drilling Contractor: Earth Drilling Finish Date: 29/07/2021 Ground Elevation (m): Final Depth of Hole (m): 64.0 Drill Method: Sonic Datum: UTM NAD83, Zone 11N Core: 97.9 mm Depth to Top of Rock (m): 62.3 Dip (degrees from horizontal): -90 Fluid: Water Logged by: EK Casing: 152.4 mm OD Cased To (m): 64.0 Reviewed by: TKW SPT/LPT Blows Per 150mm SPT/LPT (Blows/300mm) Sample Type Elevation (m) Lab Tests Sample No. Depth (m) Lithological Description and Symbol Backfill Details Moisture Content & Comments Atterberg Limits W_P% W% ×—— 0 ——> 20 40 60 80 -0 GRAVEL (0.0 m to 2.1 m) Some sand, trace cobble, trace silt, well graded, loose, angular, grey to brown, dry, homogeneous, trace weathering, trace coal. [WASTE ROCK] 2 GRAVEL AND SAND (2.1 m to 4.6 m) Trace cobble, some silt, well graded, loose, angular to subangular, 3 G01 dry, brown grey. [WASTE ROCK] 4.3 m - Becomes GRAVEL, some sand, compact, brown, moist. SAND (4.6 m to 7.0 m) Gravelly, well graded, subangular, loose, grey, dry, homogeneous. [WASTE ROCK] 5 6 7 GRAVEL (7.0 m to 13.7 m) Some sand, trace silt, trace cobble, well graded, angular, dark brown, dry, some coal.
[WASTE ROCK] 8 G02 9 9.9 m - Boulder, fractured, loose, dry, grey. (Continued on next page)

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DRILL HOLE # FR_MW-HC2A Page 2 of 7 Project: Henretta Site Investigation Project No.: 0797032 Location: Henretta Spoil Drill Designation: Gus Pech Sonicor 50 Start Date: 27/07/2021 Survey Method: Handheld GPS Coordinates (m): 652,352E, 5,566,598N Drilling Contractor: Earth Drilling Finish Date: 29/07/2021 Ground Elevation (m): Drill Method: Sonic Final Depth of Hole (m): 64.0 Datum: UTM NAD83, Zone 11N Core: 97.9 mm Depth to Top of Rock (m): 62.3 Dip (degrees from horizontal): -90 Fluid: Water Logged by: EK Casing: 152.4 mm OD Cased To (m): 64.0 Reviewed by: TKW SPT/LPT Blows Per 150mm SPT/LPT (Blows/300mm) Sample Type Elevation (m) Lab Tests Sample No. Depth (m) Lithological Description and Backfill Details Symbol Moisture Content & Comments Atterberg Limits W₂% W% W₁% ×—— 0 ——> 20 40 60 80 -10 GRAVEL (7.0 m to 13.7 m) Some sand, trace silt, trace cobble, well graded, angular, dark brown, dry, some coal.
[WASTE ROCK] 12 12.0 m to 13.1 m - COAL Low grade, fractured, loose, black, dry. 13 SAND (13.7 m to 18.5 m) Some gravel, angular to subangular, brown, dry. [WASTE ROCK] 15 • G03 15.4 m to 16.0 m - COAL Low grade, fractured, loose, black, dry. 16 17 17.3 m - Boulders, fractured, dry. 18 GRAVEL (18.5 m to 26.9 m) Trace silt, trace sand, trace clay, well graded, friable, angular to subangular, grey, moist. [WASTE ROCK] - 19 G04 ❖ (Continued on next page)

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DRILL HOLE # FR_MW-HC2A Page 3 of 7 Project: Henretta Site Investigation Project No.: 0797032 Location: Henretta Spoil Drill Designation: Gus Pech Sonicor 50 Start Date: 27/07/2021 Survey Method: Handheld GPS Coordinates (m): 652,352E, 5,566,598N Drilling Contractor: Earth Drilling Finish Date: 29/07/2021 Ground Elevation (m): Drill Method: Sonic Final Depth of Hole (m): 64.0 Datum: UTM NAD83, Zone 11N Core: 97.9 mm Depth to Top of Rock (m): 62.3 Dip (degrees from horizontal): -90 Fluid: Water Logged by: EK Casing: 152.4 mm OD Cased To (m): 64.0 Reviewed by: TKW Backfill
Details
SPT/LPT Blows
Per 150mm SPT/LPT (Blows/300mm) Sample Type Elevation (m) Lab Tests Sample No. Depth (m) Lithological Description and Symbol Moisture Content & Comments Atterberg Limits W_P% W% ×—— 0 ——> 20 40 60 80 -20 GRAVEL (18.5 m to 26.9 m) Trace silt, trace sand, trace clay, well graded, friable, angular to subangular, grey, moist. [WASTE ROCK] 20.8 m - Becomes some cobbles, dry. 21 22 24 25 25.2 m to 26.0 m - COAL Low grade, loose, moist, black. 26 26.0 m - Fractured boulders. 27 GRAVEL AND COBBLES (26.9 m to 49.7 m) Trace sand, well graded, angular, loose, grey, dry, some white staining.
[WASTE ROCK] 28 28.3 m to 28.8 m - COAL Low grade, dry. $28.8\ m$ - Becomes GRAVEL, silty, some sand, trace cobble, compact, subangular, brown, moist, trace weathering. [WASTE ROCK] 29 (Continued on next page)

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Page 4 of 7 DRILL HOLE # FR_MW-HC2A Project: Henretta Site Investigation Project No.: 0797032 Location: Henretta Spoil Drill Designation: Gus Pech Sonicor 50 Start Date: 27/07/2021 Survey Method: Handheld GPS Coordinates (m): 652,352E, 5,566,598N Drilling Contractor: Earth Drilling Finish Date: 29/07/2021 Ground Elevation (m): Drill Method: Sonic Final Depth of Hole (m): 64.0 Datum: UTM NAD83, Zone 11N Core: 97.9 mm Depth to Top of Rock (m): 62.3 Dip (degrees from horizontal): -90 Fluid: Water Logged by: EK Casing: 152.4 mm OD Cased To (m): 64.0 Reviewed by: TKW SPT/LPT Blows Per 150mm SPT/LPT (Blows/300mm) Sample Type Elevation (m) Lab Tests Sample No. Depth (m) Lithological Description and Backfill Details Moisture Content & Comments Atterberg Limits W_P% W% ×—— 0 ——> 20 40 60 80 -30 GRAVEL AND COBBLES (26.9 m to 49.7 m) Trace sand, well graded, angular, loose, grey, dry, some white staining.
[WASTE ROCK] 30.9 m - Trace woody debris. 31 G05 31.8 m - Becomes moist to wet. 32 32.0 m - Becomes GRAVEL AND SAND, some clay, trace silt, trace cobbles, well graded, compact, rounded to subrounded, brown, moist, multilithic, trace wood debris, trace weathering. 33 34 35 35.0 m - Becomes SAND, gravelly, angular, some woody debris (sticks and possible weathered lumber) 36 37 37.0 m - Becomes GRAVEL, sandy, trace silt, poorly graded, subrounded, grey, moist to wet, trace weathering. G06 • 38 38.1 m - Becomes silty. 39 Sample G07 (39.5 m to 39.7 m): Grain size analysis - Gravel 45%, 39.3 m - Becomes wet. Sand 34%, Fines 21%. ₿ G07 (Continued on next page)

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All noted depths are in metres along hole.

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DRILL HOLE # FR_MW-HC2A Page 5 of 7 Project: Henretta Site Investigation Project No.: 0797032 Location: Henretta Spoil Start Date: 27/07/2021 Drill Designation: Gus Pech Sonicor 50 Survey Method: Handheld GPS Coordinates (m): 652,352E, 5,566,598N Drilling Contractor: Earth Drilling Finish Date: 29/07/2021 Ground Elevation (m): Drill Method: Sonic Final Depth of Hole (m): 64.0 Datum: UTM NAD83, Zone 11N Core: 97.9 mm Depth to Top of Rock (m): 62.3 Dip (degrees from horizontal): -90 Fluid: Water Logged by: EK Casing: 152.4 mm OD Cased To (m): 64.0 Reviewed by: TKW Backfill
Details
SPT/LPT Blows
Per 150mm SPT/LPT (Blows/300mm) Sample Type Elevation (m) Lab Tests Sample No. Depth (m) Lithological Description and Moisture Content & Comments Atterberg Limits W_P% W% ×—— 0 ——> 20 40 60 80 40 GRAVEL AND COBBLES (26.9 m to 49.7 m) Trace sand, well graded, angular, loose, grey, dry, some white staining. [WASTE ROCK] 40.4 m - Becomes silty, some sand. 41.0 m - Becomes sandy. 42 42.3 m - Becomes SILT, gravelly, some clay, trace cobble, grey, moist to dry, compact, trace roots and woody debris. 43 ♦ G08 44 45 46 47 48 49 (Continued on next page) **Teck**

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DRILL HOLE # FR_MW-HC2A Page 6 of 7 Project: Henretta Site Investigation Project No.: 0797032 Location: Henretta Spoil Drill Designation: Gus Pech Sonicor 50 Start Date: 27/07/2021 Survey Method: Handheld GPS Coordinates (m): 652,352E, 5,566,598N Drilling Contractor: Earth Drilling Finish Date: 29/07/2021 Ground Elevation (m): Drill Method: Sonic Final Depth of Hole (m): 64.0 Datum: UTM NAD83, Zone 11N Core: 97.9 mm Depth to Top of Rock (m): 62.3 Dip (degrees from horizontal): -90 Fluid: Water Logged by: EK Casing: 152.4 mm OD Cased To (m): 64.0 Reviewed by: TKW SPT/LPT Blows Per 150mm SPT/LPT (Blows/300mm) Sample Type Elevation (m) Lab Tests Sample No. Depth (m) Lithological Description and Backfill Details Moisture Content & Comments Atterberg Limits W_P% W% ×—— 0 ——> 20 40 60 80 -50 SILT (49.7 m to 50.6 m) Gravelly, trace sand, well graded, dense, rapid dilatency, low ♦ plasticity, brown, wet, white and orange staining, trace coal, organic G09 debris / roots present. (POSSIBLE ORIGINAL GROUND SURFACE) GRAVEL (50.6 m to 62.3 m) Some silt, trace sand, trace cobble, well graded, very dense, 51 subrounded to subangular, grey brown, dry to moist, stratified. 52 52.0 m to 52.3 m - Becomes SILT, gravelly, moist. 53 54 55 56 56.4 m - Becomes GRAVEL, silty, some cobbles. G10 Ö 57 58 59 59.4 m - Becomes GRAVEL, some silt, some sand, trace clay, trace cobble, dark brown, moist, trace weathering. (Continued on next page) **Teck**

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DRILL HOLE # FR_MW-HC2A Page 7 of 7 Project: Henretta Site Investigation Project No.: 0797032 Location: Henretta Spoil Drill Designation: Gus Pech Sonicor 50 Start Date: 27/07/2021 Survey Method: Handheld GPS Coordinates (m): 652,352E, 5,566,598N Drilling Contractor: Earth Drilling Finish Date: 29/07/2021 Ground Elevation (m): Drill Method: Sonic Final Depth of Hole (m): 64.0 Datum: UTM NAD83, Zone 11N Core: 97.9 mm Depth to Top of Rock (m): 62.3 Dip (degrees from horizontal): -90 Fluid: Water Logged by: EK Casing: 152.4 mm OD Cased To (m): 64.0 Reviewed by: TKW SPT/LPT Blows Per 150mm SPT/LPT (Blows/300mm) Sample Type Elevation (m) Lab Tests Sample No. Depth (m) Lithological Description and Backfill Details Moisture Content & Comments Atterberg Limits W₂% W% W₁% ×—— 0 ——> 20 40 60 80 -60 GRAVEL (50.6 m to 62.3 m) Some silt, trace sand, trace cobble, well graded, very dense, subrounded to subangular, grey brown, dry to moist, stratified. 61 61.5 m - Boulder, fractured, grey, dry. 62 BEDROCK (62.3 m to 64.0 m) Pulverized, grey, dry. 63 END OF DRILL HOLE AT 64.0 m 1. Drill hole was terminated after encountering bedrock.
2. The moisture content, fines content, and in-situ density of the soil may be altered by heat and vibration generated by the sonic drilling 65 method. 3. Interpretation of bedrock type is not provided as the rock was 3. Interpretation of bedrock type is not provided as the rock was pulverized by the sonic drilling method.

4. Monitoring well (FR_MW-HC2A) was installed with a 50.8 mm diameter, schedule 40 solid PVC from surface to 50.2 mbgs, and a 0.25 mm slot schedule 40 PVC screen from 50.2 mbgs to 53.3 mbgs.

5. The monitoring well was completed with 10-20 filter sand from 50. 66 m bgs to 53.6 m bgs, bentonite chips from surface to 50 m bgs, and from 53.6 m bgs to 64.0 m bgs.

6. The monitoring well was completed at surface with 0.91 m PVC stickup and a protective steel monument cemented in place.
7. The water level was measured at 35.4 m bgs on August 2, 2021. 8. Borehole collar coordinates are from handheld GPS (Garmin GPSmap 64x), uncertainty +/- 3 m. 67 68 69

Page 1 of 5 DRILL HOLE # FR_MW-HC2B Project: Henretta Site Investigation Project No.: 0797032 Location: Henretta Spoil Start Date: 30/07/2021 Drill Designation: Gus Pech Sonicor 50 Survey Method: Handheld GPS Coordinates (m): 652,352E, 5,566,597N Drilling Contractor: Earth Drilling Finish Date: 30/07/2021 Ground Elevation (m): Drill Method: Sonic Final Depth of Hole (m): 42.7 Datum: UTM NAD83, Zone 11N Core: 97.9 mm Depth to Top of Rock (m): N/A Dip (degrees from horizontal): -90 Fluid: Water Logged by: EK Casing: 152.4 mm OD Cased To (m): 42.7 Reviewed by: TKW Backfill
Details
SPT/LPT Blows
Per 150mm SPT/LPT (Blows/300mm) Sample Type Elevation (m) Lab Tests Sample No. Depth (m) Lithological Description and Symbol Moisture Content & Comments Atterberg Limits W₂% W% W₁% ×—— 0 ——> 20 40 60 80 -0-[WASTE ROCK]
Refer to twin hole FR_MW-HC2A log for detailed lithological 2 3 5 6 7 8 - 9 (Continued on next page) **Teck** BGC ENGINEERING INC. Print Date: 23/09/2021 AN APPLIED EARTH SCIENCES COMPANY

Page 2 of 5 DRILL HOLE # FR_MW-HC2B Project: Henretta Site Investigation Project No.: 0797032 Location: Henretta Spoil Start Date: 30/07/2021 Drill Designation: Gus Pech Sonicor 50 Survey Method: Handheld GPS Coordinates (m): 652,352E, 5,566,597N Drilling Contractor: Earth Drilling Finish Date: 30/07/2021 Ground Elevation (m): Drill Method: Sonic Final Depth of Hole (m): 42.7 Datum: UTM NAD83, Zone 11N Core: 97.9 mm Depth to Top of Rock (m): N/A Dip (degrees from horizontal): -90 Fluid: Water Logged by: EK Casing: 152.4 mm OD Cased To (m): 42.7 Reviewed by: TKW Backfill
Details
SPT/LPT Blows
Per 150mm SPT/LPT (Blows/300mm) Sample Type Elevation (m) Lab Tests Sample No. Depth (m) Lithological Description and Symbol Moisture Content & Comments Atterberg Limits W₂% W% W₁% ×—— 0 ——> 20 40 60 80 -10 [WASTE ROCK]
Refer to twin hole FR_MW-HC2A log for detailed lithological 12 13 14 15 16 17 18 - 19 (Continued on next page) **Teck** BGC ENGINEERING INC.

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Page 3 of 5 DRILL HOLE # FR_MW-HC2B Project: Henretta Site Investigation Project No.: 0797032 Location: Henretta Spoil Start Date: 30/07/2021 Drill Designation: Gus Pech Sonicor 50 Survey Method: Handheld GPS Coordinates (m): 652,352E, 5,566,597N Drilling Contractor: Earth Drilling Finish Date: 30/07/2021 Ground Elevation (m): Drill Method: Sonic Final Depth of Hole (m): 42.7 Datum: UTM NAD83, Zone 11N Core: 97.9 mm Depth to Top of Rock (m): N/A Dip (degrees from horizontal): -90 Fluid: Water Logged by: EK Casing: 152.4 mm OD Cased To (m): 42.7 Reviewed by: TKW Backfill
Details
SPT/LPT Blows
Per 150mm SPT/LPT (Blows/300mm) Sample Type Elevation (m) Lab Tests Sample No. Depth (m) Lithological Description and Symbol Moisture Content & Comments Atterberg Limits W₂% W% W₁% ×—— 0 ——> 20 40 60 80 -20 [WASTE ROCK]
Refer to twin hole FR_MW-HC2A log for detailed lithological 21 22 23 24 25 26 27 28 29 (Continued on next page) **Teck** BGC ENGINEERING INC. Print Date: 23/09/2021

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DRILL HOLE # FR_MW-HC2B **Page** 4 of 5 Project: Henretta Site Investigation Project No.: 0797032 Location: Henretta Spoil Start Date: 30/07/2021 Drill Designation: Gus Pech Sonicor 50 Survey Method: Handheld GPS Coordinates (m): 652,352E, 5,566,597N Drilling Contractor: Earth Drilling Finish Date: 30/07/2021 Ground Elevation (m): Drill Method: Sonic Final Depth of Hole (m): 42.7 Datum: UTM NAD83, Zone 11N Core: 97.9 mm Depth to Top of Rock (m): N/A Dip (degrees from horizontal): -90 Fluid: Water Logged by: EK Casing: 152.4 mm OD Cased To (m): 42.7 Reviewed by: TKW Backfill
Details
SPT/LPT Blows
Per 150mm SPT/LPT (Blows/300mm) Sample Type Elevation (m) Lab Tests Sample No. Depth (m) Lithological Description and Symbol Moisture Content & Comments Atterberg Limits W₂% W% W₁% ×—— 0 ——> 20 40 60 80 -30 [WASTE ROCK]
Refer to twin hole FR_MW-HC2A log for detailed lithological 31 32 33 34 35 36 37 38 39 (Continued on next page) **Teck**

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DRILL HOLE # FR_MW-HC2B **Page** 5 of 5 Project: Henretta Site Investigation Project No.: 0797032 Location: Henretta Spoil

Survey Method: Handheld GPS Coordinates (m): 652,352E, 5,566,597N

Ground Elevation (m): Datum: UTM NAD83, Zone 11N Dip (degrees from horizontal): -90 Drill Designation: Gus Pech Sonicor 50

Core: 97.9 mm Fluid: Water

Logged by: EK Reviewed by: TKW Casing: 152.4 mm OD Cased To (m): 42.7

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Start Date: 30/07/2021 Drilling Contractor: Earth Drilling Finish Date: 30/07/2021 Drill Method: Sonic Final Depth of Hole (m): 42.7 Depth to Top of Rock (m): N/A

Depth (m)	Sample Type	Sample No.	Symbol	Lithological Description	Backfill Details	SPT/LPT Blows Per 150mm	Moi	isture Content 8 tterberg Limits W% 40 60 8	V _L %	Lab Tests and Comments	Elevation (m)
40- - - - - - - - - - - - -				[WASTE ROCK] Refer to twin hole FR_MW-HC2A log for detailed lithological description.							
- - - 43 - -				END OF DRILL HOLE AT 42.7 m Notes: 1. Monitoring well (FR_MW-HC2B) was installed with a 50.8 mm diameter, schedule 40 solid PVC from surface to 39.3 m bgs, and a 0.25 mm slot schedule 40 PVC screen from 39.3 mbgs to 42.4 mbgs. 2. The monitoring well was completed with 10-20 filter sand from 38.9							
- - 44 - - - - - 45				m bgs to 42.7 bgs, and bentonite chips from surface to 38.9 m bgs. 3. The monitoring well was completed at surface with 0.91 m PVC stickup and a protective steel monument cemented in place. 4. The water level was measured at 35.8 m bgs on August 2, 2021. 5. Borehole collar coordinates are from handheld GPS (Garmin GPSmap 64x), uncertainty +/- 3 m.							
- - - 46 - -											
47 - - - - 48 -											
- - - 49 - - -											
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Page 1 of 3 DRILL HOLE # FR_MW-HC3A Project: Henretta Site Investigation Project No.: 0797032 Location: Henretta Spoil Drill Designation: Gus Pech Sonicor 50 Start Date: 02/08/2021 Survey Method: Handheld GPS Coordinates (m): 652,580E, 5,566,548N Drilling Contractor: Earth Drilling Finish Date: 03/08/2021 Ground Elevation (m): Drill Method: Sonic Final Depth of Hole (m): 27.4 Datum: UTM NAD83, Zone 11N Core: 97.9 mm Depth to Top of Rock (m): 24.0 Dip (degrees from horizontal): -90 Fluid: Water Logged by: EK Reviewed by: TKW Casing: 152.4 mm OD Cased To (m): 27.4 Backfill
Details
SPT/LPT Blows
Per 150mm SPT/LPT (Blows/300mm) Sample Type Elevation (m) Lab Tests Sample No. Depth (m) Lithological Description and Symbol Moisture Content & Comments Atterberg Limits W_P% W% ×—— 0 ——> 20 40 60 80 -0 COAL (0.0 m to 0.8 m) Fractured, low grade, loose, black, dry. [WASTE ROCK] GRAVEL (0.8 m to 10.0 m)
Some sand, trace cobble, well graded, subangular, brown, moist, trace weathering
[WASTE ROCK] 2 3 3.9 m to 4.5 m - Boulder, fractured, grey, dry. 5 5.1 m - Becomes angular to subangular, dry, trace coal. 6 G01 Ö 7 8 9 9.1 m - Boulder, pulverized, grey, dry. (Continued on next page) **Teck** BGC ENGINEERING INC.

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Page 2 of 3 DRILL HOLE # FR_MW-HC3A Project: Henretta Site Investigation Project No.: 0797032 Location: Henretta Spoil Drill Designation: Gus Pech Sonicor 50 Start Date: 02/08/2021 Survey Method: Handheld GPS Coordinates (m): 652,580E, 5,566,548N Drilling Contractor: Earth Drilling Finish Date: 03/08/2021 Ground Elevation (m): Drill Method: Sonic Final Depth of Hole (m): 27.4 Datum: UTM NAD83, Zone 11N Core: 97.9 mm Depth to Top of Rock (m): 24.0 Dip (degrees from horizontal): -90 Fluid: Water Logged by: EK Casing: 152.4 mm OD Cased To (m): 27.4 Reviewed by: TKW SPT/LPT Blows Per 150mm SPT/LPT (Blows/300mm) Sample Type Elevation (m) Lab Tests Sample No. Depth (m) Lithological Description and Symbol Backfill Details Moisture Content & Comments Atterberg Limits W_P% W% ×—— 0 ——> 20 40 60 80 -10 GRAVEL (10.0 m to 10.7 m) Some sand, trace silt, some cobbles, trace clay, well graded, G02 subangular, grey, moist to wet. [WASTE ROCK] * Sample G02 (10.3 m to 10.5 m): Grain size analysis - Gravel 80%, Sand 14%, Fines 6%. GRAVEL (10.7 m to 14.9 m) Some cobbles, trace sand, trace clay, well graded, rounded to subrounded, grey to brown, moist to wet. [FLUVIAL] 12 13 • G03 GRAVEL (14.9 m to 24.0 m) 15 Trace sand, trace silt, trace cobble, well graded, angular to subangular, brown, wet. [COLLUVIUM] 16 17 18 - 19 Sample G04 (19.4 m to 19.6 m): Grain size analysis - Gravel 86%, G04 ❖ Sand 9%, Fines 5%. 19.8 m - Becomes angular

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DRILL HOLE # FR_MW-HC3A Page 3 of 3 Project: Henretta Site Investigation Project No.: 0797032 Location: Henretta Spoil Drill Designation: Gus Pech Sonicor 50 Start Date: 02/08/2021 Survey Method: Handheld GPS Coordinates (m): 652,580E, 5,566,548N Drilling Contractor: Earth Drilling Finish Date: 03/08/2021 Ground Elevation (m): Drill Method: Sonic Final Depth of Hole (m): 27.4 Datum: UTM NAD83, Zone 11N Core: 97.9 mm Depth to Top of Rock (m): 24.0 Dip (degrees from horizontal): -90 Fluid: Water Logged by: EK Casing: 152.4 mm OD Cased To (m): 27.4 Reviewed by: TKW SPT/LPT Blows Per 150mm SPT/LPT (Blows/300mm) (E) Sample Type Lab Tests Sample No. Depth (m) Elevation Lithological Description and Symbol Backfill Details Moisture Content & Comments Atterberg Limits W₂% W% W_I% ×—— 0 ——> 20 40 60 80 -20 GRAVEL (14.9 m to 24.0 m) Trace sand, trace silt, trace cobble, well graded, angular to subangular, brown, wet. [COLLUVIUM] 21 22 22.8 m - Becomes GRAVEL AND SAND, trace clay, trace cobble, 23 well graded, angular to subangular, grey, moist, trace weathering. • G05 24 BEDROCK (24.0 m to 27.4 m) Pulverized, dry, grey. 25 26 27 END OF DRILL HOLE AT 27.4 m Notes:

1. Drill hole was terminated after encountering bedrock.

2. The moisture content, fines content, and in-situ density of the soil may be altered by heat and vibration generated by the sonic drilling method.

3. Interpretation of bedrock type is not provided as the rock was pulverized by the sonic drilling method.

4. Monitoring well (FR MW-HC3A) was installed with a 50.8 mm diameter, schedule 40 FVC screen from 18.9 mbgs, and a 0.25 mm slot schedule 40 PVC screen from 18.9 mbgs to 21.9 mbgs.

5. The monitoring well was completed with 10-20 filter sand from 18.6 m bgs to 22.2 m bgs, bentonite chips from surface to 18.5 m bgs, and from 22.2 m bgs to 27.4 m bgs.

6. The monitoring well was completed at surface with 0.83 m PVC stickup and a protective steel monument cemented in place.

7. The water level was measured at 9.3 m bgs on August 3, 2021.

8. Borehole collar coordinates are from handheld GPS (Garmin GPSmap 64x), uncertainty +/- 3 m. 28 29

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DRILL HOLE # FR_MW-HC3B **Page** 1 of 2 Project: Henretta Site Investigation Project No.: 0797032 Location: Henretta Spoil Start Date: 03/08/2021 Drill Designation: Gus Pech Sonicor 50 Survey Method: Handheld GPS Coordinates (m): 652,581E, 5,566,547N Drilling Contractor: Earth Drilling Finish Date: 03/08/2021 Ground Elevation (m): Drill Method: Sonic Final Depth of Hole (m): 14.0 Datum: UTM NAD83, Zone 11N Core: 97.9 mm Depth to Top of Rock (m): N/A Dip (degrees from horizontal): -90 Fluid: Water Logged by: EK Casing: 152.4 mm OD Cased To (m): 14.0 Reviewed by: TKW Backfill
Details
SPT/LPT Blows
Per 150mm SPT/LPT (Blows/300mm) Sample Type Elevation (m) Lab Tests Sample No. Depth (m) Lithological Description and Symbol Moisture Content & Comments Atterberg Limits W₂% W% W₁% ×—— 0 ——> 20 40 60 80 -0-[WASTE ROCK]
Refer to twin hole FR_MW-HC3A log for detailed lithological 2 3 5 6 7 8 - 9 (Continued on next page) **Teck**

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DRILL HOLE # FR_MW-HC3B Page 2 of 2 Project: Henretta Site Investigation Project No.: 0797032 Location: Henretta Spoil Drill Designation: Gus Pech Sonicor 50 Start Date: 03/08/2021 Survey Method: Handheld GPS Coordinates (m): 652,581E, 5,566,547N Drilling Contractor: Earth Drilling Finish Date: 03/08/2021 Ground Elevation (m): Drill Method: Sonic Final Depth of Hole (m): 14.0 Datum: UTM NAD83, Zone 11N Core: 97.9 mm Depth to Top of Rock (m): N/A Dip (degrees from horizontal): -90 Fluid: Water Logged by: EK Casing: 152.4 mm OD Cased To (m): 14.0 Reviewed by: TKW SPT/LPT Blows Per 150mm SPT/LPT (Blows/300mm) Sample Type Elevation (m) Lab Tests Sample No. Depth (m) Lithological Description and Symbol Backfill Details Moisture Content & Comments Atterberg Limits W₂% W% W₁% ×—— 0 ——> 20 40 60 80 -10 [WASTE ROCK] Refer to twin hole FR_MW-HC3A log for detailed lithological description. [FLUVIAL] Refer to twin hole FR_MW-HC3A log for detailed lithological description. 12 13 END OF DRILL HOLE AT 14.0 m Notes:

1. Monitoring well (FR_MW-HC3B) was installed with a 50.8 mm diameter, schedule 40 solid PVC from surface to 10.1 m bgs, and a 0.25 mm slot schedule 40 PVC screen from 10.1 mbgs to 13.1 mbgs. 2. The monitoring well was completed with 10-20 filter sand from 9.8 m bgs to 14.0 bgs, and bentonite chips from surface to 9.8 m bgs. 15 3. The monitoring well was completed at surface with 0.80 m PVC stickup and a protective steel monument cemented in place. 4. The water level was measured at 9.3 m bgs on August 3, 2021.
5. Borehole collar coordinates are from handheld GPS (Garmin GPSmap 64x), uncertainty +/- 3 m. 16 17 18 - 19

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			■ ■	<u>NA</u>	<u> </u>			1	
. 11	CNIC. T ANIA	T TRI		Client Coal Lin	nited			Borehole I	No. : FR_BH22_POTW1A
7))	SNC+LAVA	LII		ocation - Potwe	ells				PAGE 1 OF 6
Orillin Boreh	g Contractor Mud Bay Drilling Co. Ltd. g Method Vibratory Sonic ole Dia. (m) 0.15 clotted Pipe Dia. (m) 0.05/0.05	_	Date Monitored Ground Surface Elev. (m Top of Casing Elev. (m) Northing: 5565188.275) 1684 1685	2 08 18 1.332 5.324 ing: 651	189.55	54	Project Number: Borehole Logged Date Drilled: Log Typed By:	692207 By: MTB 2022 08 13 LC
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NAI ▼ Water Le ⊽ Water Le • NAPL ◇ NAPL	evel 1 <u>5</u>	Sample Interval Core Run	Sample Number	Blow Count		P Reading within indicated scale P Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: FR_MW22_POTW1/
Δ	Soil Desc	cription	Strai	Sam	Sam	Blo	ਔ % 10	1 10 ² 10 ³ 10 ¹	
3	SAND and GRAVEL, fine to coar gravel, subrounded to subangula	se sand, fine	e to coarse d, brown, loose,				100		CEMENT-BENTONITE BENTONITE

					<u>H</u>	<u> </u>				
.11	CRIC. T ATTA	TTRI	т		Client oal Lin	nited			Borehole N	lo. : FR_BH22_POTW1A
7))	SNC·LAVA	LIIN			cation Potwe	lls				PAGE 2 OF 6
Drilling Boreho	Contractor Mud Bay Drilling Co. Ltd. Method Vibratory Sonic Die Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5565188.	. (m)	1684 1685		189.554	ļ	Project Number: Borehole Logged Date Drilled: Log Typed By:	692207 By: MTB 2022 08 13 LC
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NAI ▼ Water Le ⊽ Water Le ◆ NAPL ◇ NAPL	vel 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: FR_MW22_POTW1
ă	Soil Des	cription		Stre	San	San	ЫЩ	% 10¹	10 ² 10 ³ 10 ⁴	
11	SAND and GRAVEL, fine to coa gravel, subrounded to subangula wet. (continued)							80		
3-	GRAVELLY SAND, fine to coars subrounded to subangular, brow	se sand, fine to n, loose, wet.	o coarse gravel,							
15-	At 14.3 m - some gravel, fine, su	ubrounded to s	subangular.					80		BENTONITE
16-	SAND and SILT, fine sand, trace containing cobbles, brown, loose									
18-	SILT and CLAY, brown, firm, me	edium plasticit	ty, damp.					100		
				NOT	ES					

			<u> IIN</u>	<u>\</u>				
A) CRIC I A	74 T TRI	Teck	Client Coal Li	mited			Borehole N	lo. : FR_BH22_POTW1A
*) SNC+LAY	ALIN		Locatior O - Potw				I	PAGE 3 OF 6
Drilling Contractor Mud Bay Drilling Co Drilling Method Vibratory Sonic Borehole Dia. (m) 0.15 Pipe/Slotted Pipe Dia. (m) 0.05/0.05	. Ltd.	Date Monitored Ground Surface Elev. (n Top of Casing Elev. (m) Northing: 5565188.275	n) 168 168	22 08 18 34.332 35.324 sting: 651	189.554	E	Project Number: Borehole Logged Date Drilled: Log Typed By:	692207 By: MTB 2022 08 13 LC
Drilling Legend Sample Interval Vibrasonic Light Company of the c	Water/NA ▼ Water Le □ Water Le • NAPL ○ NAPL	1 '	Sample Interval	Sample Number	Blow Count	• Re ind	eading within dicated scale reading outside dicated scale roll Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: FR_MW22_POTW1/
Soil [Description		San	San	BB %	1 ₀ ¹ 1	0 ² 10 ³ 10 ⁴	
SILT and CLAY, brown, firm (continued) 21 SILT and GRAVEL, fine to subangular, some clay, dar plasticity, damp, till-like. 22 23 24 27 28 30	coarse gravel, sub	rounded to on-plastic to low	OTES		100			BENTONITE

				<u> </u>	NA	<u> </u>			1	
112	CRIC T ATTA	TTRT		(Teck C	Client oal Lin	nited			Borehole N	lo. : FR_BH22_POTW1A
*))	SNC+LAVA	LIN			cation - Potwe	ells				PAGE 4 OF 6
Drilling Boreho	Contractor Mud Bay Drilling Co. Ltd. Method Vibratory Sonic Dle Dia. (m) 0.15 Otted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface E Top of Casing Ele Northing: 5565188	v. (m)	1684 1685	2 08 18 1.332 5.324 ing: 651	189.55	4	Project Number: Borehole Logged Date Drilled: Log Typed By:	692207 By: MTB 2022 08 13 LC
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Le ⊽ Water Le • NAPL ○ NAPL	vel 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	indicated scale	Solid PVC Slotted PVC Well Name 1: FR_MW22_POTW1
ă	Soil Des	cription		Stra	San	San	В	% 101	10² 10³ 10⁴	
31-32-	SILT and GRAVEL, fine to coars subangular, some clay, dark broplasticity, damp, till-like. (continual)	wn, dense, no	rounded to on-plastic to low							BENTONTE
33-	SILTY SAND, fine to coarse sar subrounded to subangular, som brown, loose, wet. SILT and SAND, fine sand, som subrounded to subangular, dark moist.	e clay, well gr	aded, dark ravel, fine,		*************************************			100		FR_MW22_POTW1
34	At 33.8 m - some gravel. SILTY, GRAVELLY SAND, fine gravel, subrounded to subangula dark brown, loose, wet.									SAND
35								100		
37-	SAND and SILT, fine sand, poor non-plastic, moist.	ly graded, dar	k brown, loose,							
39-								100		BENTONITE
				NOT	TES					

			'		Cliont					
•))	SNC+LAVA	LIN	Т	eck C	Client Coal Lin	nited			Borehole	No. : FR_BH22_POTW1A
	OITO DILITI				- Potwe	ells				PAGE 5 OF 6
Drilling Boreho	g Contractor Mud Bay Drilling Co. Ltd. g Method Vibratory Sonic ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5565188.	. (m) ´	1684 1685	2 08 18 4.332 5.324 ting: 651	189.55	54	Project Number: Borehole Logged Date Drilled: Log Typed By:	692207 I By: MTB 2022 08 13 LC
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NAI ▼ Water Le ⊽ Water Le • NAPL ○ NAPL	vel 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: FR_MW22_POTW1A
De	Soil Desc	cription		Straf	Sam	Sam	Blo	ૐ % 1	0 ¹ 10 ² 10 ³ 10	4
42-	SAND and SILT, fine sand, poorly non-plastic, moist. (continued) SILTY SAND, fine to coarse sand subrounded to subangular, well gwet.	d, some grave	el, fine to coarse,					100		
46	SILTY SAND, fine to medium sar coarse, subrounded to subangular	wn, dense, da	vel, fine to					100		BENTONITE
				NO.	TES					

	CRIC. I ANIA	TINI	Т		Client oal Lin	nited				Borehole N	No. : FR_BH22_POTW1A
>))	SNC+LAVA	LIIN			cation - Potw e						PAGE 6 OF 6
Drilling Boreho	Contractor Mud Bay Drilling Co. Ltd. Method Vibratory Sonic Dle Dia. (m) 0.15 Ottled Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5565188.	r. (m) ´	1684 1688	2 08 18 4.332 5.324 ting: 6511	189.55	54		Project Number: Borehole Logged Date Drilled: Log Typed By:	692207 By: MTB 2022 08 13 LC
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Le ⊽ Water Le • NAPL	vel 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Sount	very	•	indicated scale Reading outside indicated scale Soil Vapour	Solid PVC Slotted PVC Well Name 1: FR_MW22_POTW1A
Depth	Soil Desc			Stratign	Sample Core R	Sample	Blow Count	% Recovery		(ppm)	
- 50-			5 4		0,0				10¹	10 ² 10 ³ 10 ⁴	
51-	SILTY SAND, fine to medium sar coarse, subrounded to subangula (continued)	nd, some gra ar, dark brow	vel, rine to n, dense, moist.					100			
52-	BEDROCK, siltstone, dark grey,	dry.						100			BENTONITE
53-											
54	Bottom of hole at 54.0 m.								•		
55											
56											
57-											
58-											
59											
				NOT	ΓES						

					<u> NA</u>							
. N	CRIC. T ANIA	TINI	т		Client oal Lim	ited			Borehole I	No. : F	R_BH22_P	OTW1B
?))	SNC+LAVA	LIN			cation Potwe	lls				PAGE	1 OF 2	
Orilling Boreh	g Contractor Mud Bay Drilling Co. Ltd. g Method Vibratory Sonic ole Dia. (m) 0.15 slotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5565187.	(m)	1684 1685		189.05	66	Project Number: Borehole Logged Date Drilled: Log Typed By:	Ву:	692207 MTB 2022 08 15 LC	
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Le □ Water Le • NAPL □ NAPL	evel 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count		Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)		Solid PVC Slotted PVC Name 1: FR_M	W22_POTW1
<u>ă</u>	Soil Des	cription		Stra	San	San	B	% 10	0 ¹ 10 ² 10 ³ 10 ⁴		П	
3—	SAND and GRAVEL, fine to coarse coarse sand, some silt, well grad Between 0.0 m and 0.6 m - organism and 3.7 m - wet. At 3.7 m - wet.	rse sand, fine	e to coarse					50 50 70 70		▼ ////////////////////////////////////		SEMENT-BENTONITE

	CRIC T ATTA	TINI	Т		Client oal Lin	nited				Borehole N	No. : FR_BH22_POTW1B
📆	SNC+LAVA	LIN			cation Potwe	ells					PAGE 2 OF 2
Drilling Boreho	g Contractor Mud Bay Drilling Co. Ltd. y Method Vibratory Sonic ble Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5565187.	. (m) ´	1684 1685	2 08 18 4.308 5.379 ting: 651	189.05	56		Project Number: Borehole Logged Date Drilled: Log Typed By:	692207 By: MTB 2022 08 15 LC
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Le ⊽ Water Le • NAPL ◇ NAPL	evel 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	Recovery		Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: FR_MW22_POTW1B
	Soil Des	cription		Str	Sal	Sal	B	ા હા	10¹	10 ² 10 ³ 10 ⁴	
11-	SAND and GRAVEL, fine to coal gravel, subrounded to subangula wet. (continued)							70			BENTONITE
13-	GRAVELLY SAND, fine to coars subrounded to subangular, brow At 14.3 m - some gravel, fine, su	n, loose, wet.						50			FR_MW22_POTW1B
16	SAND and SILT, fine sand, trace occasional cobbles, brown, loos	e clay, poorly e, non-plastic	graded, ;, wet.								SAND
19-	Bottom of hole at 17.4 m.			NOT	ES				-		

Contractor Mud Bay Drilling Co. Ltd. Method Vibratory Sonic e Dia. (m) 0.15 otted Pipe Dia. (m) 0.05/0.05 Drilling Legend Sample Interval Vibrasonic Soil Description of Control of Contr	Water/NAI ▼ Water Le ⊽ Water Le • NAPL ◇ NAPL	Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5565187. PL Levels vel 1	FRO -	1684 1685	11s 2 08 18 3.345	188.530		Project Number: Borehole Logged Date Drilled: Log Typed By:	PAGE	1 OF 1 692207 MTB 2022 08 1	
Contractor Mud Bay Drilling Co. Ltd. Method Vibratory Sonic e Dia. (m) 0.15 sted Pipe Dia. (m) 0.05/0.05 Drilling Legend Sample Interval Vibrasonic Soil Description	Water/NAI ▼ Water Le ⊽ Water Le • NAPL ◇ NAPL	Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5565187.	ev. (m) (m) 167	2022 1684 1685	2 08 18 3.345 3.354	188.530		Project Number: Borehole Logged Date Drilled:		692207 MTB 2022 08 1	
Method Vibratory Sonic e Dia. (m) 0.15 otted Pipe Dia. (m) 0.05/0.05 Drilling Legend Sample Interval Vibrasonic Soil Description	▼ Water Le ⊽ Water Le • NAPL ○ NAPL	Ground Surface Ele Top of Casing Elev. Northing: 5565187. PL Levels vel 1	(m) 167	1684 1685	.345 5.354	188.530		Borehole Logged Date Drilled:	Ву:	MTB 2022 08 1	6
Sample Interval Vibrasonic Soil Desc	▼ Water Le ⊽ Water Le • NAPL ○ NAPL	vel 1	Plot					Log Typed by.		LC	
			Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	indicated scale		Solid PVC Slotted PVC Name 1: FF	C R_MW22_POTW1
SANDY CRAVEL fine to coorse	cription		Stra	San	San	ВЫ	₽ 8 10¹	10 ² 10 ³ 10 ⁴			
silt, well graded, brown, loose, d Between 0.3 m and 0.6 m - orga	amp.	unded, some				2					—— BENTONITE FR_MW22_POTW1
			NOT	ES							
	Bottom of hole at 8.5 m.	Bottom of hole at 8.5 m.	Bottom of hole at 8.5 m.		Bottom of hole at 8.5 m. NOTES						

Drilling Contractor Mud Bay Drilling Co. Ltd. Drilling Method Vibratory Sonic Ground Surface Ele Top of Casing Elev. Northing: 5565024.* Pipe/Slotted Pipe Dia. (m) 0.05/0.05 Water/NAPL Levels	Loca FRO - Pov. (m) (m) 168	2022 0 1679.6 1680.5	\$ 12 514 519 g: 65103	39.776 Blow Count % Recovery	•	Project Number Borehole Logge Date Drilled: Log Typed By: Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	PAG	692200 MTB 2022 0 LC Solid PV	7 7 8 07 C PVC : FR_MW22_	
Drilling Contractor Drilling Method Sorehole Dia. (m) 0.15 Top of Casing Elev. Northing: 5565024. Pipe/Slotted Pipe Dia. (m) 0.05/0.05	v. (m) (m) 168	2022 0 1679.6 1680.5 Easting	08 12 614 619 g: 65103	Blow Count % Recovery	•	Borehole Logge Date Drilled: Log Typed By: Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	of	69220; MTB 2022 0 LC Solid PV	7 8 07 /C PVC : FR_MW22_	
Drilling Method Dia. (m) 0.15 Top of Casing Elev. Northing: 5565024. Pipe/Slotted Pipe Dia. (m) 0.05/0.05 Northing: 5565024. Drilling Legend Sample Interval Vibrasonic Water/NAPL Levels Water Level 1 Water Level 2 NAPL NAPL NAPL NAPL NAPL NAPL Soil Description SANDY GRAVEL, fine to coarse gravel, subrounded, fine to coarse sand, well graded, brown, loose, damp.	(m) 168	1679.6 1680.5 Easting	614 619 g: 65103	Blow Count % Recovery	•	Borehole Logge Date Drilled: Log Typed By: Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	of	MTB 2022 0 LC Solid PV Slotted F	8 07 /C PVC : FR_MW22_	
Sample Interval Vibrasonic Water/NAPL Levels Water Level 1 Water Level 2 NAPL NAPL NAPL NAPL NAPL At 0.9 m - wet.	Stratigraphy Plot	Sample Interval Core Run	Sample Number	- 0	•	indicated scale Reading outside indicated scale Soil Vapour (ppm)	01	Slotted F	PVC : FR_MW22_	
Soil Description SANDY GRAVEL, fine to coarse gravel, subrounded, fine to coarse sand, well graded, brown, loose, damp. At 0.9 m - wet.	Stra	Sam	Sam	- 0	101	10 ² 10 ³ 1			CEMEN	r-bentonite
2— At 0.9 m - wet.				25			▼// //		CEMEN	T-BENTONITE
SAND and GRAVEL, fine to coarse sand, fine to coarse gravel, subrounded, well graded, brown, loose, wet. GRAVELLY SAND, fine to coarse sand, fine to coarse gravel, subrounded, well graded, brown, loose, wet.				90					BENTON	ιπε

	CRIC. T ANIA	TINI	T		Client oal Lin	nited			Borehole I	No. : FR_BH22_POTW2A
7))	SNC+LAVA	LII			cation Potwe					PAGE 2 OF 7
Drilling Boreh	Contractor Mud Bay Drilling Co. Ltd. Method Vibratory Sonic Dle Dia. (m) 0.15 Ottled Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5565024.	(m)	1679 1680	2 08 12 9.614 0.519 ting: 6510)39.77	76	Project Number: Borehole Logged Date Drilled: Log Typed By:	692207 By: MTB 2022 08 07 LC
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Le □ Water Le • NAPL ○ NAPL	vel 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count		Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: FR_MW22_POTW2A
Deptl	Soil Desc			Stratig	Sample Core F	Sample	Blow	% Recovery		
10-				les se					¹ 10 ² 10 ³ 10	
12-	SAND and SILT, fine sand, brown							90		FR_MW22_POTW2A
17	SILT, some sand, fine, poorly grannon-plastic, wet. SILT and CLAY, poorly graded, bewet.							100		BENTONITE
				NOT	TES					

					<u> </u>	<u> </u>				
	CRIC T ATTA	TTAT	т		Client oal Lin	nited			Borehole N	lo. : FR_BH22_POTW2A
*))	SNC+LAVA	LIN			cation Potwe	lls			1	PAGE 3 OF 7
Drilling Boreho	Contractor Mud Bay Drilling Co. Ltd. Method Vibratory Sonic ele Dia. (m) 0.15 otted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5565024.	. (m) ´	1679 1680		039.776	3	Project Number: Borehole Logged Date Drilled: Log Typed By:	692207 By: MTB 2022 08 07 LC
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Le ▽ Water Le ◆ NAPL ◇ NAPL	vel 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	indicated scale	Solid PVC Slotted PVC Well Name 1: FR_MW22_POTW2A
De	Soil Des	cription		Strat	Sam Core	Sam	Blo	₩ 10¹	10 ² 10 ³ 10 ⁴	
23-	SILT and CLAY, poorly graded, wet. (continued) CLAY, some gravel, fine to coarse of subangular, some clay, brown, or subangular, some clay, so	gravel, subrounde gravel, subrou dense, moist, se gravel, subr	ed, brown, firm, nded to till-like.					90		BENTONTE
30				NOT	ES					[///\lambda

Soil Descript Continued)	Date Grou Top Nort ater/NAPL L Water Level 1 Water Level 2 NAPL NAPL tion	e Monitored and Surface Ele of Casing Elev. hing: 5565024.1 evels	Lo FRO -	1679 1680	08 12 .614	Blow Count	% Recovery	Project Number: Borehole Logged Date Drilled: Log Typed By: Reading within indicated scale	PAGE 4 OF 7 By: 692207 MTB 2022 08 07 LC Solid PVC Slotted PVC Well Name 1: FR_MW22_POTW2.
Drilling Contractor Mud Bay Drilling Co. Ltd. Drilling Method Vibratory Sonic Borehole Dia. (m) 0.15 Pipe/Slotted Pipe Dia. (m) 0.05/0.05 Drilling Legend Sample Interval Vibrasonic Soil Descript 30 SllT and GRAVEL, fine to coarse grasubangular, some clay, brown, dense (continued)	Date Grou Top Nort ater/NAPL L Water Level 1 Water Level 2 NAPL NAPL tion	e Monitored and Surface Ele of Casing Elev. hing: 5565024.1	v. (m) (m) 168	2022 1679 1680 East	08 12 .614 .519 ng: 6510		•	Project Number: Borehole Logged Date Drilled: Log Typed By: Reading within indicated scale Reading outside indicated scale Soil Vapour	By: 692207 MTB 2022 08 07 LC Solid PVC Slotted PVC
Orilling Method Vibratory Sonic O.15 Oripe/Slotted Pipe Dia. (m) 0.05/0.05 Oripe/Slotted Pipe Dia. (m) 0.05/0.05 Original Sample Interval Vibrasonic Soil Descript Soil Descript Solic Descript Solic Descript Solic Descript Continued)	Ground Top Nort Tater/NAPL L Water Level 1 Water Level 2 NAPL NAPL tion	und Surface Ele of Casing Elev. hing: 5565024.1	(m) 68	1679 1680 East	.614 .519 ng: 6510		•	Borehole Logged Date Drilled: Log Typed By: Reading within indicated scale Reading outside indicated scale Soil Vapour	By: MTB 2022 08 07 LC Solid PVC Slotted PVC
Sample Interval Vibrasonic Soil Descript Soil Descript Soil Descript Subangular, some clay, brown, dense (continued)	Water Level 1 Water Level 2 NAPL NAPL tion	led to	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	•	indicated scale Reading outside indicated scale Soil Vapour	Slotted PVC
Soil Descript SILT and GRAVEL, fine to coarse grasubangular, some clay, brown, dense (continued) 31	avel, subround	led to e.	Stra	Sam	Sam	Blo	χ Κ		
subangular, some clay, brown, dense (continued)	avel, subrounc e, moist, till-lik	led to e.					° 1 ₁ 0¹	10 ² 10 ³ 10 ⁴	
33- 34- 35- 36- GRAVELLY SILT, fine to coarse grave subangular, some clay, dark brown, still-like. 37- At 37.6 m - containing cobbles.	el. subrounde	d to					100		BENTONTE

SNC + LAVALIN Location FRO - Potwells					(Client oal Lin				Borehole N	lo. : FR_BH22_POTW2A
Description of the property of	•))	SNC+LAVA	LIN		Lo	cation					PAGE 5 OF 7
Soil Description Walk Name 1: FR_MW22_PON Well Name 1: FR_MW22_PON Walk Name	Drilling Boreho	Method Vibratory Sonic ole Dia. (m) 0.15		Ground Surface El Top of Casing Elev	/. (m) ´	1679 1680	9.614 9.519	039.77	6	Borehole Logged Date Drilled:	By: MTB 2022 08 07
Soil Description GRAVELLY Sit. T. fine to coarse gravel, subrounded to subangular, some clay, dark brown, soft, low plasticity, damp, blil-like, (continued) At 40.2 m - some gravel. At 42.3 m - no gravel. At 42.3 m - some gravel, fine to coarse, subrounded to subangular. Sit. T AND GRAVEL, fine to coarse grawel, subangular to subrounded, trace clay, dark brown, soft, non-plastic, wet. At 49.4 m - encountered artesian flow.	epth in Metres	Sample Interval	▼ Water Le □ Water Le • NAPL	vel 1	l itigraphy Plot	nple Interval e Run	nple Number	w Count	•	indicated scale Reading outside indicated scale Soil Vapour	\square
At 42.3 m - no gravel. At 42.3 m - no gravel, fine to coarse, subrounded to subangular. At 5.4 m - some gravel, fine to coarse, subrounded to subangular. At 49.4 m - encountered artesian flow.	۵	Soil Desci	ription		Stra	San	San	BIG	₩ 10¹	10 ² 10 ³ 10 ⁴	
At 45.4 m - some gravel, fine to coarse, subrounded to subangular. SILT AND GRAVEL, fine to coarse gravel, subangular to subrounded, trace clay, dark brown, soft, non-plastic, wet. At 49.4 m - encountered artesian flow.	41-	subangular, some clay, dark brow till-like. <i>(continued)</i> At 40.2 m - some gravel.	ravel, subro n, soft, low p	unded to olasticity, damp,					100		
SILT AND GRAVEL, fine to coarse gravel, subangular to subrounded, trace clay, dark brown, soft, non-plastic, wet. At 49.4 m - encountered artesian flow.	45		oarse, subro	unded to					100		BENTONTE
At 49.4 m - encountered artesian flow.		SILT AND GRAVEL, fine to coarse subrounded, trace clay, dark brow	e gravel, sul n, soft, non-	pangular to plastic, wet.					100		
NOTES		At 49.4 m - encountered artesian t	flow.		NOT	ES					

	SNC · LAVA			C	Client					
	SNC+LAVA	TTAT	Te	ck C	oal Lim	ited			Borehole N	lo. : FR_BH22_POTW2A
Drilling		LIN			cation Potwe	lls			1	PAGE 6 OF 7
Drilling	g Contractor Mud Bay Drilling Co. Ltd. I Method Vibratory Sonic ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Elet Top of Casing Elev. Northing: 5565024.1	(m) ´	1679 1680		039.77	' 6	Project Number: Borehole Logged Date Drilled: Log Typed By:	692207 By: MTB 2022 08 07 LC
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Le ⊽ Water Le ♠ NAPL △ NAPL	vel 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Page Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: FR_MW22_POTW2/
Δ	Soil Des	cription		Str	Sar Col	Sar	B	% 10	1 10 ² 10 ³ 10 ⁴	
50	SILT AND GRAVEL, fine to coal subrounded, trace clay, dark bro (continued) Between 52.1 m and 52.4 m - si SILT AND GRAVEL, fine to coal subrounded, trace clay, dark gre Between 54.9 m and 55.2 m - si Between 55.5 m and 56.1 m - si	Itstone, dark g rse gravel, sut ey, dense, wet	plastic, wet. grey. pangular to					100		BENTONITE
				NOT	ES					

					1/	<u> </u>					
	CDIC T ATTA	T T T T	Te		Client oal Lin	nited			Borehole N	lo. :	FR_BH22_POTW2A
 	SNC+LAVA	LIN			cation Potwe				ı	PAG	GE 7 OF 7
Drilling Boreho	Contractor Mud Bay Drilling Co. Ltd. Method Vibratory Sonic Dle Dia. (m) 0.15 Ottled Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5565024.	(m)	1679 1680	2 08 12 9.614 0.519 ting: 6510)39.77	'6	Project Number: Borehole Logged Date Drilled: Log Typed By:	Ву:	692207 MTB 2022 08 07 LC
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Le □ Water Le • NAPL □ NAPL	evel 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	w	Solid PVC Slotted PVC ell Name 1: FR_MW22_POTW2A
<u>a</u>	Soil Desc	cription		Stra	Sam	Sam	l l	₩ % 10¹	10 ² 10 ³ 10 ⁴		
60-	Bottom of hole at 60.1 m.			Lv v				1			
62-											
63-											
64											
65											
66-											
67-											
68											
69											
70											
				NOT	ES						

			1	ГП	<u> </u>				1		
	CRIC T AND	TTNT	1		Client oal Lin	nited			Borehole I	No. : FR_I	BH22_POTW2B
*))	SNC · LAVA	LIN		Lo FRO -	cation Potwe	ells				PAGE 1	OF 2
Drilling Boreho	Contractor Mud Bay Drilling Co. Ltd. Method Hydrovac/Vibratory Sonic le Dia. (m) 0.15 otted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface El- Top of Casing Elev Northing: 5565021	ر (m) ´	1679 1680	2 08 12 9.618 9.494 ing: 651	038.914	ļ	Project Number: Borehole Logged Date Drilled: Log Typed By:	By: MT	22 08 10
Depth in Metres	Drilling Legend Sample Interval Vac. Extraction Vibrasonic	Water/NA ▼ Water Le ⊽ Water Le • NAPL ○ NAPL	evel 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	indicated scale	Slott	I PVC ed PVC e 1: FR_MW22_POTW2E
۵	Soil Desc	ription		Stra	San	San	m	% 1 ₁₀ 1	10 ² 10 ³ 10 ¹		
3-	SANDY GRAVEL, fine to coarse coarse sand, well graded, brown, At 0.6 m - wet. SAND and GRAVEL, fine to coarse gravel, subrounded, well graded,	loose, damp	to coarse					770			DEMENT-BENTONITE BENTONITE
7	GRAVELLY SAND, fine to coarse subrounded, well graded, brown,	e sand, fine to loose, wet.	o coarse gravel,					70			FR_MW22_POTW2I
9-				NOT	ES						

			(Client					
A	CNICAT ANIATINI	т	eck C	oal Lin	nited			Borehole N	No. : FR_BH22_POTW2B
 7 <i>)</i>	SNC · LAVALIN			cation - Potw e					PAGE 2 OF 2
Drilling	Contractor Mud Bay Drilling Co. Ltd.	Date Monitored			2 08 12			Project Number:	692207
Boreho	Method Hydrovac/Vibratory Sonic le Dia. (m) 0.15 otted Pipe Dia. (m) 0.05/0.05	Ground Surface Ele Top of Casing Elev Northing: 5565021.	. (m)	1680	9.618 0.494 ting: 6510	138 01	1	Borehole Logged Date Drilled: Log Typed By:	By: MTB 2022 08 10 LC
r ipe/Si	Drilling Logand	APL Levels	219	Las	ung. 0510	30.9	0	Reading within	
es	Vac. Extraction ▼ Water	Level 1	t t	_	<u>ь</u>		•	indicated scale Reading outside indicated scale	Solid PVC Slotted PVC
Met	✓ Water • NAPL	Level 2	hy PI	nterva	nump(unt	ery	Soil Vapour	Well Name 1: FR_MW22_POTW2B
Depth in Metres	<u></u> NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	(ppm)	
ă	Soil Description		Stra	San	San	BK	% 10¹	10 ² 10 ³ 10 ⁴	
10	SAND and SILT, fine sand, brown, loose, no	on-plastic, wet.	<u> </u>						SAND
	, , , ,	,		\searrow					
E 4				Ĭ,					BENTONITE
11-	Bottom of hole at 11.3 m.								
	BOLLOTT OF HOLE AL TT.5 III.								
12-									
13-									
14									
E . =									
15									
16									
17-									
18									
19-									
20-		,							
			NOT	ΓES					

SAND and GRAVEL, fine to coarse sand, fine to coarse gravel, subrounded, trace silt, well graded, brown, loose, wet.	_					NA							
FRO - Potwells PAGE 1 OF 6 Date Monitored Piper Dia. (m) 0.0500.05 Date Date Date Dia. (m) 0.0500.05 Date Date Date Date Dia. (m) 0.0500.05 Date Date Date Date Date Date Date Date	~11	CNIC. T ATTA	TTNT	Т			ited			Borehole	No. : Fl	R_BH22_	POTW3A
Dilling Method Hydroxec/Wilminny Sonic Ground Surface Elev (m) 1680.133 Becehole Logared By: MIT Becehole Dailing (m) 0.150.05 Northing 565040.922 (m) 1680.133 Becehole Logared By: MIT Becenole Dailing (m) 0.050.05 Water Level 2 Sample Interval Vibrasonic Water Level 1 Water Level 2 A NAPL Soil Description Soil Description Soil Description SaNDO GRAVEL, fine to coarse gravel, subrounded, fine to	7))	5NC+LAVA	LII				lls				PAGE	1 OF 6	
Water Level 2 Water Level 2 NAPL Soil Description O SANDY GRAVEL, fine to coarse gravel, subrounded, fine to coarse gravel, subrounded, trace silt, well graded, brown, loose, wet. SAND and GRAVEL, fine to coarse sand, fine to coarse gravel, subrounded, trace silt, well graded, brown, loose, wet. SAND and GRAVEL, fine to coarse sand, fine to coarse gravel, subrounded, fine to coarse gravel, subrounded, trace silt, well graded, brown, loose, wet. SAND and GRAVEL, fine to coarse sand, fine to coarse gravel, subrounded, trace silt, well graded, brown, loose, wet. SAND and GRAVEL, fine to coarse sand, fine to coarse gravel, subrounded, trace silt, well graded, brown, loose, wet.	Drillin Boreh	g Method Hydrovac/Vibratory Sonic ole Dia. (m) 0.15		Ground Surface Ele	(m)	1680 1681	.133 .034	145.11	1	Borehole Logge Date Drilled:		MTB 2022 08 11	
Soli Description Solid Descripti	epth in Metres	Sample Interval Vac. Extraction	▼ Water Le ⊽ Water Le • NAPL	evel 1	atigraphy Plot	nple Interval e Run	nple Number	ow Count		indicated scaleReading outside indicated scaleSoil Vapour	Well N	Slotted PVC	MW22_POTW3
SAND and GRAVEL, fine to coarse sand, fine to coarse gravel, subrounded, trace silt, well graded, brown, loose, wet.	<u> </u>	Soil Desc	ription		Stra	Sar	Sar	ă	% 10	0 ¹ 10 ² 10 ³ 10	21	П	
SAND, fine to coarse sand, some gravel, fine to coarse, subrounded, trace silt, well graded, brown, loose, wet. At 9.5 m - trace gravel.	3	SAND and GRAVEL, fine to coars gravel, subrounded, trace silt, well grade subrounded, trace silt, well grade subrounded, trace silt, well grade	se sand, fine	to coarse own, loose, wet.					100				- CONCRETE

.11	CRIC T ATTA	T TRT	1	(Feck C	Client oal Lin	nited				Borehole N	lo. : FR_	BH22_I	POTW3A
*))	SNC · LAVA	LIN			cation • Potwe	ells				I	PAGE 2	OF 6	
Drilling Boreho	Contractor Mud Bay Drilling Co. Ltd. Method Hydrovac/Vibratory Sonic ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface El Top of Casing Elev Northing: 5565040	v. (m) ´	1680 1681	2 08 15 0.133 1.034 ing: 651	145.11	1		Project Number: Borehole Logged Date Drilled: Log Typed By:	By: M	02207 TB 022 08 11	
Depth in Metres	Drilling Legend Sample Interval Vac. Extraction Vibrasonic	Water/NA ▼ Water Le □ Water Le • NAPL □ NAPL	vel 1	 Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	ir • F	Reading within ndicated scale Reading outside ndicated scale Soil Vapour (ppm)	Slot	d PVC ted PVC ne 1: FR_N	vw22_POTw3,
മ്	Soil Desc	ription		Stra	San	Sam	Ble	₩ %	0 ¹	10 ² 10 ³ 10 ⁴			
10— 	SAND, fine to coarse sand, some subrounded, trace silt, well grade (continued) SAND and SILT, fine sand, poorly non-plastic, wet. SAND, fine to coarse sand, trace loose, wet. SAND and SILT, fine sand, poorly non-plastic, wet. At 14.6 m - some clay, low plastic sand, fine, plasticity, moist.	silt, poorly g	raded, brown, wn, loose,					60					- BENTONITE
20				NOT	TES								

	CRIC T ATTA	TTNI	Te		Client oal Lin	nited			Borehole	No. : FR_BH22_POTW3A
?))	SNC+LAVA	LIN			cation - Potw e	ells				PAGE 3 OF 6
Drilling Boreh	g Contractor Mud Bay Drilling Co. Ltd. g Method Hydrovac/Vibratory Sonic ole Dia. (m) 0.15 Slotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5565040.9	(m)	1680 1681	2 08 15 0.133 1.034 ting: 651	145.11	11	Project Number: Borehole Logged Date Drilled: Log Typed By:	
Depth in Metres	Drilling Legend Sample Interval Vac. Extraction Vibrasonic	Water/NA ▼ Water Le ⊽ Water Le • NAPL ◇ NAPL	vel 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	 Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm) 	Solid PVC Slotted PVC Well Name 1: FR_MW22_POTW3A
Dep	Soil Desc	cription		Strati	Samp Core	Samp	Blow	% Re	0 ¹ 10 ² 10 ³ 10	4
21 - 22 - 23 - 24 - 25 - 26 - 27 - 28 - 29 - 30 - 30 - 30 - 30 - 30 - 30 - 30 - 3	SILT AND GRAVEL, silt, fine to c subangular, some clay, occasion density, damp, non-plastic, till-like	coarse gravel nal cobbles, l	. subrounded to	Z				100		BENTONITE

	CRIC T ATTA	TINI	т		Client oal Lin	nited			Borehole I	No. : FR_BH22_POTW3A
7))	SNC+LAVA	LII			cation - Potwe					PAGE 4 OF 6
Drilling Boreh	g Contractor Mud Bay Drilling Co. Ltd. g Method Hydrovac/Vibratory Sonic ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5565040	/. (m)	1680 1681	2 08 15 0.133 1.034 ting: 6511	145.11	1	Project Number: Borehole Logged Date Drilled: Log Typed By:	692207 By: MTB 2022 08 11 LC
Depth in Metres	Drilling Legend Sample Interval Vac. Extraction Vibrasonic	Water/NAI ▼ Water Le ⊽ Water Le • NAPL ○ NAPL	vel 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: FR_MW22_POTW3A
De	Soil Desc	cription		Strat	Sam	Sam	Blo	% 10	1 10 ² 10 ³ 10 ⁴	
31-	SILT AND GRAVEL, silt, fine to c subangular, some clay, occasion density, damp, non-plastic, till-like density, damp, non-plastic, till-like SAND and SILT, fine sand, poorly non-plastic, moist.	nal cobbles, k e. <i>(continued</i>	orown, medium)							
33								100		
35-					>>>>>			100		BENTONITE
38-	SILT and GRAVEL, fine to coarse subangular, some clay, dark brownon-plastic, moist. At 39.3 m - gravelly.							100		
				ПОИ	res					

				<u></u>	1/	<u> </u>						
		T T T T T	т		Client oal Lir	nited			Borehole I	No. : FR_E	3H22_POTW3A	4
(*)	SNC+LAVA	LIN			cation - Potw e					PAGE 5 (OF 6	
Drilling Boreho	g Contractor Mud Bay Drilling Co. Ltd. g Method Hydrovac/Vibratory Sonic ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Electrop of Casing Electron Northing: 5565040.	/. (m)	168 168	2 08 15 0.133 1.034 ting: 651	145.11	1	Project Number: Borehole Logged Date Drilled: Log Typed By:	By: MTE	207 3 2 08 11	
Depth in Metres	Drilling Legend Sample Interval Vac. Extraction Vibrasonic	Water/NA ▼ Water Le ⊽ Water Le • NAPL ∴ NAPL	evel 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count		Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)		PVC ed PVC et 1: FR_MW22_POT	 ГW3A
Dept	Soil Desc			Stratig	Sample Core R	Sample	Blow	% Recovery				
40-				T T				°` 10	0 ¹ 10 ² 10 ³ 10 ³] 1		
43-44-44-44-44-44-44-44-44-44-44-44-44-4	SILT and GRAVEL, fine to coars, subangular, some clay, dark brown on-plastic, damp. BEDROCK, dark grey, siltstone, and subangular, some clay, dark brown on-plastic, damp.	e gravel, subi wn, medium o	rounded to					100			BENTONITE	
- 49 50				NOT	TES TES						FR_MW22_PO	ТW3А

				Client					
	CRIC. T AND TEN	, т		oal Lir	nited			Borehole I	No. : FR_BH22_POTW3A
7))	SNC+LAVALIN			cation - Potw e					PAGE 6 OF 6
Drilling	Contractor Mud Bay Drilling Co. Ltd.	Date Monitored			2 08 15			Project Number:	692207
Drilling	Method Hydrovac/Vibratory Sonic le Dia. (m) 0.15	Ground Surface Ele Top of Casing Elev		168	0.133 1.034			Borehole Logged Date Drilled:	
	otted Pipe Dia. (m) 0.05/0.05	Northing: 5565040	.922		ting: 6511	145.11	1	Log Typed By:	LC
	Sample interval	IAPL Levels					0	indicated scale	Solid PVC
etres	Vac. Extraction ✓ Water ✓ Water		Plot	-ka	ber		•	Reading outside indicated scale	Slotted PVC
Depth in Metres	♠ NAPL	201012	Stratigraphy Plot	Sample Interval Core Run	Sample Number	onut	very	Soil Vapour	Well Name 1: FR_MW22_POTW3A
epth	<u></u> NAPL		atigra	nple e Ru	nple	Blow Count	% Recovery	(ppm)	
	Soil Description		Str	Sar	Sar	B	% 101	10 ² 10 ³ 10 ⁴	
50	BEDROCK, dark grey, siltstone, dry. (contin	ued)					:	: : :	FR_MW22_POTW3A
E 3				\swarrow					
F = 1				\swarrow			:		
51							100		
= =									SAND
E 3	Between 51.5 m and 52.7 m - brown, weath	ered, fractured.		\searrow			:		
52									,,,,,,
							:		
53-	Bottom of hole at 52.7 m.		IVX	/ <u> </u>				;;	
533									
1									
54									
Εđ									
55									
=									
E 3									
56									
E 3									
57-									
E =									
E=									
58-									
Εŧ									
59									
F =									
€00									
			NO	ΓES					

	ONIC TATIA	TTAT	To		Client oal Li r	nited			Borehole	No. : FR_BH22_	POTW3B
*/)	SNC+LAVA	LIN			cation Potwe					PAGE 1 OF 1	
Drilling Boreh	g Contractor Mud Bay Drilling Co. Ltd. g Method Hydrovac/Vibratory Sonic ble Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5565042.0	(m) ´	168 168	2 08 15 0.186 1.079 ting: 651	147.51	17	Project Number: Borehole Logged Date Drilled: Log Typed By:	692207 d By: MTB 2022 08 13 LC	
Depth in Metres	Drilling Legend Sample Interval	Water/NA ▼ Water Le ⊽ Water Le • NAPL ∴ NAPL	evel 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count		Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: FR	MW22_POTW3B
Deptl	Soil Desc			Stratig	Sample Core R	Sample	Blow	% Rec		4 _	
1—————————————————————————————————————	SANDY GRAVEL, fine to coarse coarse sand, some silt, well grades and sand GRAVEL, fine to coar gravel, subrounded, trace silt, well grades as a subrounded silt silt.	gravel, subroded, brown, lo	to coarse own, loose, wet.						1 102 103 10		— BENTONITE - BENTONITE - BENTONITE
10	Bottom of hole at 9.8 m.										
				NOT	TES						

				Client oal Lin				Borehole	No. : FR_BH22_CB-1C
•))	SNC · LAVALIN		Lo	cation					PAGE 1 OF 1
Drilling Boreho	Contractor Mud Bay Drilling Co. Ltd. Method Vibratory Sonic le Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05	Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5564422.	(m) ´	1672 1673	2 09 09 2.736 3.976 ting: 6510)80.18	18	Project Number: Borehole Logged Date Drilled: Log Typed By:	692204 By: MTB 2022 09 09 LC
Depth in Metres	Drilling Legend Sample Interval Vibrasonic Water /N. Water I NAPL NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	Recovery	indicated scale	Solid PVC Slotted PVC Well Name 1: FR_MW22_CB-1C
ă	Soil Description		Stra	San	San	BIG	% 10	1 10 ² 10 ³ 10 ⁴	
2	GRAVELLY SAND, fine to coarse sand, fine subrounded, some silt, well graded, brown, l Between 0 m and 0.6 m - organics present. SILT, some fine sand, poorly graded, brown, non-plastic.						0 100		BENTONITE FR_MW22_CB-1C
7-	Bottom of hole at 6.7 m.		VVVV	1\					J l aiaiaiaiaiai a∃
9-10-			NOT	ΓES					

					<u> </u>	<u> </u>					
	ONIO TATA	T T T T	Te	ck C	Client oal Lim	nited			Borehole	No. : FR_BI	122_CB-7A
*))	SNC · LAVA	LIN	FRO		cation Pond	Center				PAGE 1 OF	4
Drilling Boreho	Contractor Mud Bay Drilling Co. Ltd. Method Hydrovac//ibratory Sonic ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Elev Top of Casing Elev. (Northing: 5564164.5	m)	1669 1671		348.72°	ı	Project Number: Borehole Logged Date Drilled: Log Typed By:	692204 By: AH 2022 07 LC	
Depth in Metres	Drilling Legend Sample Interval Vac. Extraction Vibrasonic	Water/NA ▼ Water Le ⊽ Water Le • NAPL ○ NAPL	vel 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	indicated scale	Solid PV0 Slotted P Well Name 1:	
ă	Soil Desc	ription		Stra	San	San	B	% 10¹	10 ² 10 ³ 10 ⁴		
2	SAND and GRAVEL, containing of SILTY CLAY, poorly graded, grey, Between 5.2 m and 6.7 m - firm.							0			—— BENTONITE
9-10-	At 8.8 m - 2 mm seam of sand, fir	ne.		NOT	ES						

					4/				1	
	CRIC. T ANIA	TTAT	Te		Client oal Lin	nited			Borehole	No. : FR_BH22_CB-7A
SNC+LAVALIN			FRO		cation e Pond	Center				PAGE 2 OF 4
Drilling Boreh	g Contractor Mud Bay Drilling Co. Ltd. g Method Hydrovac/Vibratory Sonic ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5564164.	(m)	1669 1671	2 08 10 9.987 1.019 ing: 6508	848.72	11	Project Number: Borehole Logged Date Drilled: Log Typed By:	692204 By: AH 2022 07 29 LC
Depth in Metres	Drilling Legend Sample Interval Vac. Extraction Vibrasonic	Water/NA ▼ Water Le ▽ Water Le ◆ NAPL ◇ NAPL	vel 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count		Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: FR_MW22_CB-7A
ă	Soil Desc	cription		Stra	San	San	ğ	% 10	0 ¹ 10 ² 10 ³ 10	
11-	SILTY CLAY, poorly graded, grey (continued) At 10.4 m - 2 mm seam of sand, Between 12.8 m and 15.5 m - tra laminated layers of silt with fine s	ce fine sand	and silt,					100		BENTONITE
16	SANDY CLAY, fine to medium sa fine to coarse, subrounded, poorl medium plasticity, wet.									
18	SILTY SAND, fine to medium sar fine to coarse, subrounded, well a medium plasticity, wet.							100		
20	Between 19.5 m and 19.8 m - sea	am of silt and	d sand, fine.	NOT	rES					

1)	CRIC. T ATTA	TTNT	-		Client oal Lim	ited			Borehole	No. : FR_BH22_CB-7A
"	SNC+LAVA	LIN	FR		cation e Pond	Center				PAGE 3 OF 4
ling eho	Contractor Mud Bay Drilling Co. Ltd. Method Hydrovac/Vibratory Sonic ole Dia. (m) 0.15 oltted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface E Top of Casing Ele Northing: 5564164	v. (m) ´	1669 1671		348.721		Project Number: Borehole Logged Date Drilled: Log Typed By:	692204 By: AH 2022 07 29 LC
<u>-</u>	Drilling Legend Sample Interval Vac. Extraction Vibrasonic	Water/NA ▼ Water Le ⊽ Water Le • NAPL ◇ NAPL	vel 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	indicated scale	Solid PVC Slotted PVC Well Name 1: FR_MW22_CB-7
	Soil Des	cription		Stra	Sar	Sar	ă	% 10¹	10 ² 10 ³ 10 ⁴	
) -	SILTY SAND, fine to medium sa fine to coarse, subrounded, well medium plasticity, wet. (continue SILTY GRAVEL, fine to coarse of sand, fine to coarse, trace clay, loose, low plasticity, wet.	graded, grey ed) gravel, subrou	brown, soft,				11	00		
	SILTY GRAVEL, fine to coarse goarse, trace clay, well graded, g									
							11	00		
	SANDY GRAVEL, medium to co gravel, subrounded, well graded brown, loose wet. Between 24.7 m and 25.0 m - sil	, some silt, tra	ace clay, dark							BENTONITE
	Between 25.6 m and 25.9 m - sil	ity gravel, den	se.							
	Between 26.5 m and 27.1 m - sil	ty gravel, den	se.				11	00		
	SILTY GRAVEL, fine to coarse g clay, well graded, brown, dense,	gravel, subrou medium plas	nded, some ticity, moist.							
	WEATHERED BEDROCK, siltst	one, weak, da	ark grey brown.	* : * :			10	00		
				NOT	ΓES					

	CRIC. I ANIA	TINI	T.		Client oal Lin	nited			Borehole	No. : FR_BH22_CB-7A
7))	SNC+LAVA	LIIN	FRO		cation e Pond	l Center				PAGE 4 OF 4
Drilling Boreho	g Contractor Mud Bay Drilling Co. Ltd. g Method Hydrovac/Vibratory Sonic ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5564164.	(m)	1669 167	2 08 10 9.987 1.019 ting: 6508	348.72	21	Project Number: Borehole Logged Date Drilled: Log Typed By:	692204 By: AH 2022 07 29 LC
Depth in Metres	Drilling Legend Sample Interval Vac. Extraction Vibrasonic	Water/NA ▼ Water Le ▽ Water Le • NAPL ○ NAPL	vel 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	indicated scale	Solid PVC Slotted PVC Well Name 1: FR_MW22_CB-7A
De	Soil Desc	cription		Strat	Sam Core	Sam	Blo	∞ % 10¹	10 ² 10 ³ 10 ⁴	
31-32-33-33-33-33-33-33-33-33-33-33-33-33-	WEATHERED BEDROCK, siltsti (continued) BEDROCK, siltstone, R2 (weak i MPa), W1 (fresh weathering), ver infilling 1 - 2 mm, several other job between 32.6 m and 33.5 m - py	intact rock str tical joints wi oints, smooth	ength, 5-25 th calcium , no infilling.	7				100		FR_MW22_CB-7A SAND
38-				NOT	TES					

Track Coal Limited Coal Limited Coal Limited Coal Limited PAGE 1 OF 3						<u>H</u>	<u> </u>			
Deling Controlor Mad Buy Daling Co. Ltd. Daling Members Deling Controlor Mad Buy Daling Co. Ltd. Daling Members	.11	CRIC T ATTA	TTAT	Те			nited		Borehole	No. : FR_BH22_CB-7B
Drilling Method Psychocal Vibrainsy Source To Clarge Sev. (m) 1000 305 To Clarge Sev.	*))	SNC+LAVA	LIN	FRO			Center			PAGE 1 OF 3
Sample interest a water tree! 1	Drilling Boreho	Method Hydrovac/Vibratory Sonic ole Dia. (m) 0.15		Ground Surface Elev Top of Casing Elev. (m)	1669 1670).862).816	350.145	Borehole Logged Date Drilled:	I By: AH 2022 07 30
Soil Description SAND and GRAVEL, containing cobbles. GRAVEL, fine to coarse, subrounded, some sand, fine to coarse, trace silt, well graded, brown, loose, wet. GRAVEL, fine to coarse, subrounded, some sand, fine to coarse, trace silt, well graded, brown, loose, wet. GRAVEL, fine to coarse, subrounded, some sand, fine to coarse, trace silt, well graded, brown, loose, wet. GRAVEL, fine to coarse, subrounded, some sand, fine to coarse, trace silt, well graded, brown, loose, wet. GRAVEL, fine to coarse, subrounded, some sand, fine to coarse, trace silt, well graded, brown, loose, wet. GRAVEL, fine to coarse, subrounded, some sand, fine to coarse, trace silt, well graded, brown, loose, wet. GRAVEL, fine to coarse, subrounded, some sand, fine to coarse, trace silt, well graded, brown, loose, wet.	epth in Metres	Sample Interval Vac. Extraction	▼ Water Le ⊽ Water Le • NAPL	vel 1	ıtigraphy Plot	nple Interval e Run	nple Number	ow Count Recovery	 Reading outside indicated scale Soil Vapour 	Slotted PVC
SRAVEL, fine to coarse, subrounded, some sand, fine to coarse, trace silt, well graded, brown, loose, wet. SILTY CLAY, poorly graded, grey brown, soft, high plasticity, moist. CLAY, some silt, poorly graded, grey brown, soft, high plasticity, moist.	ă	Soil Des	cription		Stra	San	San		0 ¹ 10 ² 10 ³ 10	
	3- 	GRAVEL, fine to coarse, subrou coarse, trace silt, well graded, b	nded, some s rown, loose, v y brown, soft,	and, fine to vet.				100		CONCRETE

		Te		Client Coal Lin	nited			Borehole	No. : FR_BH22_CB-7B
(*)	SNC+LAVALIN			ocation e Pond	Center				PAGE 2 OF 3
Drilling Boreho	g Contractor Mud Bay Drilling Co. Ltd. g Method Hydrovac/Vibratory Sonic ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05	Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5564161.7	(m) ´	1669 1670	2 08 10 9.862 9.816 ting: 6508	350.14	5	Project Number: Borehole Logged Date Drilled: Log Typed By:	692204 By: AH 2022 07 30 LC
Depth in Metres	Vac. Extraction Vibrasonic ✓ Water ♠ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Sount		Reading within indicated scale Reading outside indicated scale Soil Vapour	Solid PVC Slotted PVC Well Name 1: FR_MW22_CB-7B
Depth	Soil Description		Stratign	Sample Core R	Sample	Blow Count	% Recovery	(ppm)	
10— 11— 12— 13— 14— 16— 17— 18—	SILTY CLAY, trace sand, fine, poorly grade high plasticity, moist. At 14.6 m - 5 cm seam of sand, fine. SANDY CLAY, fine to medium sand, some grey brown, soft, medium plasticity, wet. Between 17.1 m and 18.3 m - trace gravel, SILTY SAND, fine to medium sand, some of fine to coarse, subrounded, well graded, gradedium plasticity, wet. At 18.9 m - 20 cm silt layer.	d, grey brown, soft, silt, poorly graded, fine to coarse.	15		38		% ₁ 100 100 100 100 100 100 100 100 100 10	01 102 103 10	BENTONITE FR_MW22_CB-7B SAND
20-			NOT	ΓES					

	CRIC T ATTA	T T	Т		lient oal Lim	ited				Borehole	No. : FR_BH22_CB-7B
*))	SNC+LAVA	LIN	FRO		cation Pond	Center					PAGE 3 OF 3
Drilling Boreho	Contractor Mud Bay Drilling Co. Ltd. Method Hydrovac/Vibratory Sonic ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5564161.	(m)	1669 1670		350.14	15		Project Number: Borehole Logged Date Drilled: Log Typed By:	692204 By: AH 2022 07 30 LC
Depth in Metres	Drilling Legend Sample Interval Vac. Extraction Vibrasonic	Water/NA ▼ Water Le ⊽ Water Le • NAPL	vel 1	ny Plot	terval	umber	ınt	ry	•	Reading within indicated scale Reading outside indicated scale	Solid PVC Slotted PVC
epth in		© NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery		Soil Vapour (ppm)	Well Name 1: FR_MW22_CB-7B
	Soil Desc	cription		Str	Sa Co	Sa	B	%	10 ¹	10 ² 10 ³ 10 ⁴	
20	SILTY GRAVEL, fine to coarse g sand, fine to coarse, trace clay, v loose, low plasticity, wet.	ravel, subrou vell graded, g	nded, some grey brown,					100			FR_MW22_CB-7B
21	At 21.0 m - dense.										BENTONITE
22-	Bottom of hole at 21.8 m.										
23											
24											
25											
26											
27-											
28-											
29											
30											
				NOT	ES						

	ONIO TATIA	T T N T	Te		Client oal Lin	nited			Borehole	No. : FR_BH22_CB-7C
*))	SNC+LAVA	LIN	FRO		cation e Pond	Center				PAGE 1 OF 1
Drilling Boreho	g Contractor Mud Bay Drilling Co. Ltd. g Method Hydrovac/Vibratory Sonic ole Dia. (m) 0.15 Slotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5564159.7	(m)	1669 1670	2 08 10 9.704 9.664 ing: 6508	351.14	16	Project Number: Borehole Logged Date Drilled: Log Typed By:	692204 I By: AH 2022 03 22 LC
Depth in Metres	Drilling Legend Sample Interval Vac. Extraction Vibrasonic	Water/NA ▼ Water Le ▼ Water Le • NAPL • NAPL	vel 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count		Property of the control of the contr	Solid PVC Slotted PVC Well Name 1: FR_MW22_CB-7C
ď	Soil Desc	cription		Stra	San	San	В	% 10	1 10 ² 10 ³ 10	
2-	SAND and GRAVEL, containing GRAVEL, fine to coarse gravel, s to coarse, trace silt, well graded,	subrounded, s	some sand, fine					100		BENTONITE FR_MW22_CB-7C
4	SILTY CLAY, poorly graded, grey moist. Bottom of hole at 5.0 m.	y brown, soft,	high plasticity,							SAND
7 - 10 - 10 - 10 - 10 - 10 - 10 - 10 - 1				NOT						
				NOT	ES					

7	CNICAT ATTA	TTAT	Tecl	Clier k Coal	t Limited		Borehole	Borehole No. : FR_BH22_CB-X3A				
•	SNC+LAVA		FRO C	Locati lode Po	on ond North			PAGE 1 OF 4				
ng ho	Contractor Mud Bay Drilling Co. Ltd. Method Vibratory Sonic le Dia. (m) 0.15 otted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Elev. (Top of Casing Elev. (m Northing: 5564528.345	m) 1	022 08 09 673.952 674.954 asting: 650	0939.085	Project Number: Borehole Logged Date Drilled: Log Typed By:					
	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Le ⊽ Water Le ◆ NAPL ◇ NAPL		Stratigraphy Plot Sample Interval	Core Run Sample Number	Blow Count % Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: FR_MW22_CB-X				
	Soil Des	cription	d	Sar	Sar		10 ¹ 10 ² 10 ³ 10					
	SAND and GRAVEL, fine to coa gravel, subrounded, well graded damp. Between 2.1 m and 2.7 m - cont	, some silt, br	own, loose,		X	20						
1	SILTY SAND, fine, trace gravel,	fine subround	ded poorly		\hat{A}							
	Between 7.6 m and 7.9 m - trace	e silt.			<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<	100		BENTONITE				
	SILTY CLAY, trace sand, fine, p firm, medium plasticity, wet, 1-3 and clay.	oorly graded, mm laminate	grey-brown, d layers of silt	***************************************	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\							
Ε,	At 9.8 m - 20 cm layer of sand, f	ine.			\prec		 	// //				
			N	OTES								

				(Client				Borehole I	No. : FR_BH2	2 CB-X3A
•))	SNC · LAVA	LIN		Lo	oal Lim					PAGE 2 OF 4	
Drilling Boreho	Contractor Mud Bay Drilling Co. Ltd. Method Vibratory Sonic ele Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5564528.3	ev. (m) (m)	1673 1674	08 09 3.952	939.08	5	Project Number: Borehole Logged Date Drilled: Log Typed By:	692204	
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Le ⊽ Water Le • NAPL ○ NAPL	evel 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	indicated scale	Solid PVC Slotted PV Well Name 1: F	C R_MW22_CB-X3/
ă	Soil Desc	cription		Stra	San	San	ĕ	% 10 ¹	1 10 ² 10 ³ 10 ⁴		
10-	SILTY CLAY, trace sand, fine, por firm, medium plasticity, wet, 1-3 and clay. <i>(continued)</i> At 10.7 m - 30 cm layer of sand,	mm laminate	grey-brown, d layers of silt					100			
12-	At 11.9 m - 10 cm layer of sand, CLAY, some silt, trace sand, fine firm, high plasticity, massive, mo	, poorly grad	ed, grey-brown,								
14-	Between 13.7 m and 14.0 m - lar	ninated silt a	nd clay.					20			
15	Between 15.9 m and 17.4 m - no	recovery, co	ntaining cobbles.								BENTONITE
18 - 19 - 1	SILTY CLAY, trace gravel, fine to graded, brown, firm, medium pla	o coarse, sub sticity, moist.	rounded, poorly					60			
20 ⁻				NOT	res		1 1	- Ii.	ii	V / I I / /I	

Soil Description SILTY GRAVEL, gravel, fine to coarse, subangular, well graded, some clay, trace sand, fine to coarse, dark brown, dense, wet, till-like. (continued) Between 21.0 m and 22.3 m - damp. SAND and GRAVEL, sand, fine to coarse, gravel, fine to coarse, subrounded, trace silt, well graded, loose, wet. SILTY GRAVEL, fine to coarse, gravel, fine to coarse, gravel, fine to gravel, fine to coarse, subrounded, trace silt, well graded, loose, wet. Between 23.5 m and 24.1 m - silt, some clay, trace gravel, fine.						NA	<u> </u>							
The property of the property o	.11	OBIO TATIA	TTNI	т			nited		Borehole	Borehole No. : FR_BH22_CB-X3A				
Illing Method Vibration's Social Service Control Surface Berry (Principles Control Con))	SNC+LAVA	LLIN	FRC			l North			PAGE 3 OF 4				
Sample Internal Water Level 1 Water Level 2 NAPL NAPL NAPL Set 1 Set 2 NAPL NAPL Set 3 Soil Description Water Level 2 Soil Description Well Name 1: FR_MW22_CB-X Well Name	illing oreh	Method Vibratory Sonic ole Dia. (m) 0.15		Ground Surface Electron Top of Casing Elev.	(m) ´	1673 1674	3.952 1.954	939.085	Borehole Logged Date Drilled:	By: AH 2022 07 30				
SILTY GRAVEL, gravel, fine to coarse, subangular, well graded, some clay, trace sand, fine to coarse, dark brown, dense, wet, till-like, (continued) SAND and GRAVEL, sand, fine to coarse, gravel, fine to coarse, subangular, trace clay, well graded, brown, dense, damp, till-like, some clay, trace gravel, fine to coarse, subrounded, trace silt, well graded, loose, wet. SILTY GRAVEL, fine to coarse, subangular, trace clay, well graded, brown, dense, damp, till-like. Between 23.5 m and 24.1 m - silt, some clay, trace gravel, fine. GRAVELLY SILT, fine to coarse, well graded, subangular, trace sand, fine, dark brown, very dense, low plasticity, damp.	Depth in Metres	Sample Interval	▼ Water Le	vel 1	tigraphy Plot	nple Interval e Run	ıple Number	w Count ecovery	 indicated scale Reading outside indicated scale 					
Between 21.0 m and 22.3 m - damp. SAND and GRAVEL, sand, fine to coarse, gravel, fine to coarse, subrounded, trace sitt, well graded, loose, wet. SILTY GRAVEL, fine to coarse, subrangular, trace day, well graded, brown, dense, damp, til-like. Between 23.5 m and 24.1 m - silt, some clay, trace gravel, fine. Between 28.8 m and 27.4 m - sandy silt, fine sand, trace gravel, fine. GRAVELLY SILT, fine to coarse, well graded, subangular, trace day, fine, dark brown, very dense, low plasticity, damp. GRAVELLY SILT, fine to coarse, well graded, subangular, trace sand, fine, dark brown, very dense, low plasticity, damp.	<u> </u>	Soil Des	scription		Stra	San	San							
SAND and GRAVEL, sand, fine to coarse, gravel, fine to coarse, subrounded, trace silt, well graded, loose, wet. SLITY GRAVEL, fine to coarse, subangular, trace clay, well graded, brown, dense, damp, till-like. Between 23.5 m and 24.1 m - silt, some clay, trace gravel, fine. Between 26.8 m and 27.4 m - sandy silt, fine sand, trace gravel, fine. GRAVELLY SILT, fine to coarse, well graded, subangular, trace sand, fine, dark brown, very dense, low plasticity, damp.	20	graded, some clay, trace sand, dense, wet, till-like. (continued)	fine to coarse,	gular, well dark brown,				100		FR_MW22_CB-)				
graded, brown, dense, damp, till-like. Between 23.5 m and 24.1 m - silt, some clay, trace gravel, fine. Between 26.8 m and 27.4 m - sandy silt, fine sand, trace gravel, fine. GRAVELLY SILT, fine to coarse, well graded, subangular, trace sand, fine, dark brown, very dense, low plasticity, damp.	-	SAND and GRAVEL, sand, fine coarse, subrounded, trace silt, v	to coarse, gra well graded, lo	vel, fine to ose, wet.										
Between 23.5 m and 24.1 m - silt, some clay, trace gravel, fine. Between 26.8 m and 27.4 m - sandy silt, fine sand, trace gravel, fine. GRAVELLY SILT, fine to coarse, well graded, subangular, trace sand, fine, dark brown, very dense, low plasticity, damp.	3-			race clay, well										
Between 26.8 m and 27.4 m - sandy silt, fine sand, trace gravel, fine. GRAVELLY SILT, fine to coarse, well graded, subangular, trace sand, fine, dark brown, very dense, low plasticity, damp.	.4— 		ilt, some clay,	trace gravel,				100						
GRAVELLY SILT, fine to coarse, well graded, subangular, trace sand, fine, dark brown, very dense, low plasticity, damp.	0		andy silt, fine s	sand, trace				100		BENTONITE				
GRAVELLY SILT, fine to coarse, well graded, subangular, trace sand, fine, dark brown, very dense, low plasticity, damp.			n e			>>>>>								
	9	GRAVELLY SILT, fine to coarse trace sand, fine, dark brown, vei	e, well graded, ry dense, low	subangular, olasticity, damp.				100						
	U				NOT	ES								

	CRIC T ATTA	T T	Te		Client oal Lin	nited			Borehole	No. : FR_BH22_CB-X3A
 *))	SNC+LAVA	LIN	FRO		cation le Pond	d North				PAGE 4 OF 4
Drilling Boreho	Contractor Mud Bay Drilling Co. Ltd. Method Vibratory Sonic ble Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5564528.3	(m) ´	167 167	2 08 09 3.952 4.954 ting: 6509	939.08	15	Project Number: Borehole Logged Date Drilled: Log Typed By:	692204 By: AH 2022 07 30 LC
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Le ⊽ Water Le ◆ NAPL ◇ NAPL	vel 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count		Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: FR_MW22_CB-X3A
Dept	Soil Des	cription		Stratig	Sampl Core F	Sampl	Blow	% Recovery		
30-		<u>'</u>		L PY					: : :	ı 1 <i>[7777</i>]
31-	GRAVELLY CLAY, fine to coarse some silt, dark brown, dense, me	e, subangular edium plastic	, well graded, ity, moist.							вентонте
32	Between 31.4 m and 32.5 m - da	amp.								
	Bottom of hole at 32.5 m.			MX						
33- 34- 35- 36- 37- 38-										
40				NOT	ES					

			<u> </u>	IIV			T				
<i>.</i> 1)	SNC+LAVA	TTN	Tecl	Client k Coal L			Borehole No. : FR_BH22_CB-X3B				
V)	SNC*LAVA	LLIIN	FRO C	Location Lode Po	n nd North			PAGE 1 OF 1			
rilling oreho	g Contractor Mud Bay Drilling Co. Ltd. g Method Vibratory Sonic ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Elev. (Top of Casing Elev. (m Northing: 5564529.526	m) 16	022 08 09 673.956 674.952 asting: 650	0939.705	Project Number: Borehole Logged Date Drilled: Log Typed By:	692204 By: AH 2022 07 31 LC			
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Le □ Water Le ♠ NAPL □ NAPL		Stratigraphy Plot Sample Interval	Sample Number	Blow Count % Recovery	indicated scale	Solid PVC Slotted PVC Well Name 1: FR_MW22_CB-X3			
۵	Soil Des	cription	i	San	San	98 % 101	1 10 ² 10 ³ 10 ⁴	П			
0	SAND and GRAVEL, fine to coa gravel, subrounded, well graded damp. Between 1.8 m and 3.7 m - cont Between 2.4 m and 3.7 m - wet.	l, some silt, br	own, loose,			40		BENTONITE			
4	SILTY SAND, fine sand, trace gi graded, brown, soft, wet.		prounded, poorly			100		FR_MW22_CB-X			
7	Between 6.4 m and 8.1 m - no g Bottom of hole at 8.1 m.	ıravel.						SAND			
9			N	OTES							

Projec	t: LMP East	: Wall Water Qua	lity Monit	toring Program	Borehole Log	No.:		LMA1
Locatio	n: Ford	ing River Opera	tion		Start Date	06/02/2021	End Date: 06	6/02/2021
Drilling	Contracto	r: Mud Bay Dril	ling		Elevation:	1666.50	Coordinates	
Superv		Teck FRO			Dip: -90 A	zi: 0.00	N	5563844.62
	Method:		Sonic		Total Depth		E	650785.49
	on Graphic		Thick	ness	•	. ().		Donth
(m)	Log	Log	(n	LIGECTINION	Drilling	Screen and Casi	ing Backfill	Construction (m)
1666					Casing (25mm ID; Sched. 80)	Casing (25mm ID; Sched. 80		
1665		SPOIL	3.05	SPOIL	ID; Sch		80)	2
1664					ı (25mm			3
1663					Casing			4
1662		WEATHERED TILL	3.1	WEATHERED TILL				5
1661								6
1660		SILT	0.64	SILT				
1659		SILT	0.58	SILT				7
1000	3	GRAVEL	0.52	GRAVEL				8
1658	-0.0	TILL SANDY TILL	0.26	TILL SANDY TILL				
1657	<u>a </u>	OVER CONSOLDIDAT ED TILL	0.32 0.46	OVER CONSOLDIDATED TILL				9
1656	20	TILL SILT SANDY TILL SILT	0.53 0.29 0.36	TILL SILT SANDY TILL SILT	Plain Screen (25 mm ID; 10 slot; Sched. 80)			10
1655	0.0	SANDY TILL TILL	0.39	SANDY TILL TILL	slot; Sc			12
1654	0.5				ı ID; 10			13
1653		SANDY TILL	2.87	SANDY TILL	(25 mm		DI.	14
1652					Screen	Plain Scree		15
1651		SOIL_ROCK	2	SOIL_ROCK		(25 mm ID 10 slot; Sched. 80	slot; Sched.) 80)	16
1650					Base cap (25 mm ID)	Base cap (25 mm ID	Base cap (25) mm ID)	17
			Coi	nstruction Key		Lithologica	al and Backfill Key	
Figure	No. C.3	ro-Geotechnical Engineer		Surface Casing GRAVEL Casing SILT	SOIL_ROC		Pack O'	VER CONSOLDIDATED TILL SANDY TILL
	33-6299 14 Surrey, V3X	4th Street		Screen TILL Open Hole	Date:	100	²⁰²¹ Ref:	30921

Project: LMP Ea	st Wall Water Qualit	ty Monitor	ing Program	Borehole Log I	No.:		LMA2
Location: For	ding River Operati	on		Start Date :	06/02/2021	End Date: 06	6/02/2021
Drilling Contract	or: Mud Bay Drilli	ng		Elevation:	1664.76	Coordinates:	1
Supervision:	Teck FRO			Dip: -90 Az	i:0.00	N	5563846.65
Drilling Method:	So	nic		Total Depth		E	650853.14
Elevation Graphi (m) Log	c Lithologial Log	Thickne (m)	ess Description	Drilling	Screen and Cas	ing Backfill	Construction Depth (m)
	GRAVEL	0.2	GRAVEL	80)	Casing	Casing (25mm	_ 0
1664	SOIL	0.76	SOIL	hed.	(25mm ID: Sched. 80) ID; Sched.	
1	GRAVEL	0.66	GRAVEL	Sol		80)	
1663	SILT	0.38	SILT	٥			— 2
1662	SAND	1.29	SAND	Casing (25mm ID; Sched.			3
1661	GRAVEL	0.44	GRAVEL	asir			
				0			4
1660							5
1659	OVER		OVER				6
1658	CONSOLDIDATED TILL	5.39	CONSOLDIDATED TILL				7
1657							8
1656				30)			9
1655				Sched. 80)			10
1654	SANDY TILL	3.04	SANDY TILL				
4.				10 s			11
1653				н Б;			12
1652	TILL	0.52	TILL	25 mr			
	SANDY TILL	0.96	SANDY TILL	Plain Screen (25 mm ID; 10 slot;	Plain Scree	Plain Screen	13
1651				J Scr	(25 mm ID 10 slot;		14
1650	SOIL_ROCK	1.99	SOIL_ROCK		Sched. 80	Schod	
1040				Base cap (25 mm ID)	Base cap	,, cap(∠o	15
1649		<u> </u>		ав∈	(25 mm ID	mm ID)	16
Figure No. C.4	dra Coatachairel Engineerin	St Ca	truction Key urface Casing GRAVEL asing SAND	SOIL_RO	ILL 🔼 Bento	al and Backfill Key onite 🎇 OVER Pack 🔃	CONSOLDIDATED TILL SANDY TILL
	ydro-Geotechnical Engineering 144th Street 3X 1A2		creen SILT pen Hole	Date :	6/25	5/2021 Ref :	20024
	504) 836 0300		pen Hole	Date .	0/20	^{6/2021} Ref:	30921

Project	: LMP East	: Wall Water Qu	ality Mon	itoring Program		Boreho	ole Log N	0.:				LM/	\3
Location	n: Ford	ing River Opera	ation			Start I	Date :	06/02/2021	End	Date: 06	5/02/2021		
Drilling	Contracto	r: Mud Bay Dr	illing			Elevat	tion:	1670.81	Coc	rdinates	!		
Supervis		Teck FRO				Dip: -	90 Azi	0.00	N			55	63951.28
Drilling	Method:		Sonic			Total	Depth (m): 14.35	Ε			(550779.85
	n Graphic Log	Lithologial Log	Thicl	kness m) De	scription		Drilling	Screen and Casi		Backfill	Constru		Depth (m)
1670 —			0.76			ched. 80)		Casing (25mm ID; Sched. 80		Casing (25mm ID; Sched. 80)		начаначанан	_ 0 1
1669 —		GRAVEL	2.05	GRAVEL		Casing (25mm ID; Sched. 80)				33,	ı	MONOMONOMONOM	2
1668 —			0.29			ssing (2							3
1667 —						Ö							4
1666 —	_	SILT	2.66	SILT									5
1665 —		SILI		SILI									6
1664 —			1.43										7
1663 —	0.0	GRAVEL	0.15	GRAVEL									
1662 —	0.0	TILL	1.49	TILL		<u> </u>							<u> </u>
1661 —	-0	SILT	0.76	SILT		ched. 80)							9
1001		GRAVEL	0.28	GRAVEL		t; Sc							10
1660 —	0.0	TILL	1.3	TILL		(Plain Screen (25 mm ID; 10 slot; Sche 2 5							11
1659 —	0.0		0.51			Ш П							_
		SOIL_ROCK	0.25 0.43	SOIL_ROCK		25 n							<u> </u>
1658 —		WEATHERED		WEATHERED		creen (Plain Scree		Plain Screen (25 mm			13
1657 —		BEDROCK	1.69	BEDROCK		Plain S		(25 mm ID 10 slot; Sched. 80		ID; 10 slot; Sched. 80)			14
1656 —				шама	ပေရာင	270	E #	Ɓase cap (25 mm ID)	Base cap (25			_ 15
Figure N	O'Neill Hyd	ro-Geotechnical Engine	ering Ltd.	Surface Casing Casing Screen	GRAV SI	EL 🎑	SOIL_R	TILL 🤦 Be			ATHERED E	BEDRO	OCK
Y				Open Hole Auth	or·		te : e O'Neill	+	/2021 v :	Ref :	;	30921	
				Auti		quali	CONCIL	2.4411.5	, ·				

	ONIO TATA	T TR T	Те	ck C	Client oal Lin	nited			Borehole N	lo. : FR_BH22_GCMW-6A			
V)	SNC+LAVA	LIN	FRO		cation le Pond	South			PAGE 1 OF 2				
rilling Soreho	Contractor Mud Bay Drilling Co. Ltd. Method Vibratory Sonic ele Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Elev Top of Casing Elev Northing: 5563917.4	(m) (1665 1666	2 08 18 5.982 5.907 ing: 6510	033.31	3	Project Number: Borehole Logged Date Drilled: Log Typed By:				
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Le ⊽ Water Le • NAPL ○ NAPL	vel 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count		Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: FR_MW22_GCMW-			
ă	Soil Desc	cription		Stra	San	San	B	% 10	1 10 ² 10 ³ 10				
2	SILT, some sand, fine to coarse, subrounded, trace clay, containing loose, dry. At 1.5 m - wet. At 2.1 m - boulder. At 2.4 m - dense, dry. SILT AND CLAY, gravelly, fine to coarse, containing cobbles, well moist-wet.	ng cobbles, d	e sand, fine to					50 90		BENTONITE			
9-1	BEDROCK, siltstone, dark grey,	dry.		NO1	res			100					

	ONIO TATIA	T T	Te		Client oal Lin	nited				Borehole N	o. : FR_BH22_GCMW-6A
(\$)	SNC+LAVA	LIN	FRO		cation e Pond	d South					PAGE 2 OF 2
Drilling Boreh	g Contractor Mud Bay Drilling Co. Ltd. g Method Vibratory Sonic ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5563917.4	(m)	1669 1669	2 08 18 5.982 6.907 ting: 6510)33.31	3		Project Number: Borehole Logged Date Drilled: Log Typed By:	692204 By: MTB 2022 08 17 LC
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Le □ Water Le • NAPL □ NAPL	vel 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	•	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: FR_MW22_GCMW-6A
Ď D	Soil Desc	cription		Stra	San	San	BB	₩ % 1	10¹	10 ² 10 ³ 10 ⁴	
11-	BEDROCK, siltstone, dark grey, Between 12.8 m and 13.7 m - we Bottom of hole at 14.3 m.	dry. (continue						100	10'	102 103 107	FR_MW22_GCMW-6A
				NOT	ES						

	CRIC. I ANIA	TINI	т		Client oal Lin	nited			Borehole N	lo. : FR_BH22_GCMW-6B
7))	SNC+LAVA	LIIN	FRO		cation le Pond	l South				PAGE 1 OF 1
Drilling Boreh	g Contractor Mud Bay Drilling Co. Ltd. g Method Vibratory Sonic ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5563916.7	(m)	1666 1666	2 08 18 5.018 5.937 ting: 6510	033.02	23	Project Number: Borehole Logged Date Drilled: Log Typed By:	692204 I By: MTB 2022 08 17 LC
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Le ⊽ Water Le • NAPL ○ NAPL	vel 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count		Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: FR_MW22_GCMW-6B
De	Soil Desc	cription		Strat	Sam Core	Sam	Blo	∞ % 10	1 10 ² 10 ³ 10	
1—————————————————————————————————————	SILT, some sand, fine to coarse, subrounded, trace clay, containin loose, dry. At 1.5 m - wet. At 2.4 m - dense, dry. SILT AND CLAY, gravelly, fine to coarse, containing cobbles, well moist.	some gravel	e sand, fine to					70		BENTONTE FR_MW22_GCMW-6B
8-	Bottom of hole at 8.2 m.									
9-			_							
				NOT	ΓES					

.1)	CNIC. T AVA	TTAT	Те		Client oal Lin	nited			Boreho	le No. : RG_BH_FR2A
V)	SNC+LAVA	LII	Regional		cation ndwate	r Monito	ring			PAGE 1 OF 3
rilling oreho	Contractor Mud Bay Drilling Co. Ltd. Method Vibratory Sonic ole Dia. (m) 0.15 oltted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5556755.6	(m) ´	1569 1569	0 10 08 9.034 9.754 ting: 6534	98.96	3	Project Number: Borehole Logged Date Drilled: Log Typed By:	631283 I By: AH 2020 08 29 VL
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Lev ✓ Water Lev ◆ NAPL ◇ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count		Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: RG_MW_FR2A
De	Soil Desc	cription		Straf	Sam	Sam	Blo	گ % ار	0 ¹ 10 ² 10 ³ 10	
1	SANDY SILT, fine grained sand, plasticity, damp. GRAVEL, fine to coarse, rounded coarse grained, trace silt, well grained.	I to subround	ed, some sand,			FR2A-01		30		SAND
3-4-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-						FR2A-02		70		BENTONITE
6— 7— 8—	SLTY SAND, fine grained sand, be orange-light brown mottling, med	olack-light bro ium dense, lo	own with w plasticity, wet.			FR2A-04				
9	SAND and GRAVEL, fine to coar coarse gravel, rounded to subrou brown, loose, wet.	se grained sa nded, some s	and, fine to silt, well graded,			FR2A-05				
				NOT Bold	Γ ES ded sa	mple de	enote	es sai	mple analyzed.	

				C	Client				Parabal	e No. : RG_BH_FR2A
•))	SNC · LAVA	LIN	Т		cation	nited				
			Regional			r Monito	oring			PAGE 2 OF 3
Orilling Boreho	Contractor Mud Bay Drilling Co. Ltd. Method Vibratory Sonic le Dia. (m) 0.15 otted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5556755.	. (m) ´	1569 1569	0 10 08 9.034 9.754 ting: 6534	198.96		Project Number: Borehole Logged Date Drilled: Log Typed By:	631283 By: AH 2020 08 29 VL
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Lev □ Water Lev • NAPL □ NAPL	/el 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: RG_MW_FR2A
De	Soil Desc	ription		Strat	Sam Core	Sam	Blo	∞ % 10	¹ 10 ² 10 ³ 10 ⁴	
10-	SAND, coarse grained, some grainose, wet. (continued)	vel, fine, rour	nded, grey,					80		
	GRAVEL, fine, rounded, some sa	nd, coarse g	rained.	١٠٠٠						
12-	SILTY SAND, fine grained sand, tight brown mottling, medium density	trace clay, da se, medium p	rk brown with plasticity, wet.							BENTONITE
13-					*************************************	FR2A-06				
14 - 	SAND and GRAVEL, fine to coarse gravel, rounded to subrout brown, loose, wet.	se grained sa nded, well gra	and, fine to aded, grey-dark		> >>>>>>					
15-						FR2A-07				RG_MW_FR2A ————————————————————————————————————
17 -					>>>>			100		
18 -) } } } }					
19-	Below 18.9 m - trace silt, trace cla	ay, dark brow	n.		*************************************	FR2A-08				BENTONITE
	Below 19.8 m - increasing clay/sil	t, increasing	density.							
				NOT Bold	ES led sa	mple de	enote	es san	nple analyzed.	

					<u> </u>					
.1)	CNIC. T ANIA	TINT	т		Client oal Lin	nited			Borehol	e No. : RG_BH_FR2A
))	SNC+LAVA		Regional		cation ndwate	r Monito	oring			PAGE 3 OF 3
illing oreho	Contractor Mud Bay Drilling Co. Ltd. Method Vibratory Sonic ole Dia. (m) 0.15 olotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5556755.	. (m) ´	1569 1569	0 10 08 9.034 9.754 ting: 6534	198.96	:3	Project Number: Borehole Logged Date Drilled: Log Typed By:	631283 By: AH 2020 08 29 VL
Deptin in Metres	Drilling Legend Sample Interval Vibrasonic	▼ Water Lev ▼ Water Lev • NAPL ○ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: RG_MW_FR2A
	Soil Des	cription		Ţ	တို ပိ	S	В	% 10	0 ¹ 10 ² 10 ³ 10 ⁴	
0	SAND and GRAVEL, fine to coa coarse gravel, rounded to subrou brown, loose, wet. (continued) SILTY SAND, fine to coarse grai rounded to subrounded, trace clamedium plasticity, wet.	unded, well gr	aded, grey-dark			FR2A-09				
3-	Below 22.4 m - increasing densit	y.			>>>					
4	SILTY CLAY, some gravel, fine t subrounded, grey, medium dens	o coarse, roui e, medium pla	nded to asticity, wet.					100		
5-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1	At 25.0 m - hard, damp.					FR2A-10		***************************************		BENTONITE
	At 27 A m. day									
8-1-1-1	At 27.4 m - dry.					FR2A-11				
9-	Dettern of help 1000				\bigotimes					
=======================================	Bottom of hole at 29.3 m.									
Ė				NOT Bold	ES led sa	mple de	enote	es sai	mple analyzed.	

<i>"</i>	SNC+LAVA	TINI	Te	eck C	Client oal Lin	nited				Borehol	e No. : RG_BH_FI	R2B
J)	SINC LAVA		Regional (cation ndwate	r Monite	oring				PAGE 1 OF 1	
lling reh	g Contractor Mud Bay Drilling Co. Ltd. g Method Vibratory Sonic ole Dia. (m) 0.15 Rotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5556755.8	(m)	1569 1569	0 10 08 9.083 9.693 ting: 6538	500.09	91		Project Number: Borehole Logged Date Drilled: Log Typed By:	631283 By: AH 2020 08 30 VL	
	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Le ∇ Water Le • NAPL ○ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	•	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: RG_MW_	FR2B
	Soil Des	cription		Stra	San	San	Blo	₩ %	10 ¹	10² 10³ 10⁴		
0	SILTY SAND, fine to coarse grai loose, medium plasticity, damp, of the coarse, medium plasticity, damp, of the coarse grained, well graded, loose the coarse grained and the coarse grained	organic mater d to subround se, wet.	ed, some sand,					70				TONITE
7	SILTY SAND, fine grained sand, mottling, medium dense, low pla	black with lig sticity, wet.	ht brown-orange								BEN	TONITE
9	Bottom of hole at 7.9 m.			NOT	ES							

.11	CRIC T ATTA	TINI	Т		Client oal Li r	nited			Boreho	le No. : RG_BH_FR3A
ソ)	SNC+LAVA	LIN	Regional		ocation ndwate		oring			PAGE 1 OF 3
Drilling Boreho	Contractor Mud Bay Drilling Co. Ltd. Method Vibratory Sonic le Dia. (m) 0.15 otted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5556777.	. (m̀) ´	157 157	0 10 08 0.402 1.215 ting: 6532	233.95	50	Project Number: Borehole Logger Date Drilled: Log Typed By:	
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Lev ✓ Water Lev ◆ NAPL ◇ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: RG_MW_FR3A
De	Soil Des	cription		Strai	Sam	Sam	Blo	¥ %	0 ¹ 10 ² 10 ³ 10] ?1 □
0	SILTY SAND, fine to medium grarounded to subrounded, dark bro moist, contains organic material. GRAVEL, fine to coarse, rounded	wn, loose, me	edium plasticity,			FR3A-01		30		SAND
3-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1	coarse grained, trace silt, contain brown, loose.	ing cobbles (60-100 mm),							Y
5	Below 4.9 m - subrounded grave	I, fine to coars	se grained sand.			FR3A-02		50		BENTONITE
7-	Between 7.3 m and 8.5 m - less	silt, grey.								
9						FR3A-03				
				NOT Bolo	Γ ES ded sa	ample de	enot	es sa	mple analyzed.	

Mud Bay Drilling Co. Ltd. fibratory Sonic 0.15 0.16 0.05/0.05 dend ample Interval ibrasonic Soil Decine to coarse, round ned, trace silt, contained, trace silt, contained, continued) orange oxidation.	Water/NA ▼ Water Let ▼ Water Let ♠ NAPL ♠ NAPL Scription	Regional Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5556777. PL Levels vel 1 vel 2 ed, some sand,	Cround Ground ev. (m)	2020 1570 1571	Monito 10 08 402	33.950	•	Project Number: Borehole Logged Date Drilled: Log Typed By:	PAGE 2 OF 3 By: 631283 AH 2020 08 31 VL Solid PVC Slotted PVC
Mud Bay Drilling Co. Ltd. fibratory Sonic 0.15 . (m) 0.05/0.05 gend ample Interval ibrasonic Soil De: ine to coarse, round ned, trace silt, conta- se. (continued)	Water/NA ▼ Water Let ▼ Water Let ♠ NAPL ♠ NAPL Scription	Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5556777. APL Levels vel 1 vel 2 ed, some sand,	ev. (m) . (m) 203	2020 1570 1571 Easti	10 08 .402 .215 ng: 65323	33.950	•	Project Number: Borehole Logged Date Drilled: Log Typed By: Reading within indicated scale Reading outside	By: 631283 AH 2020 08 31 VL Solid PVC
fibratory Sonic 0.15 . (m) 0.05/0.05 lend ample Interval librasonic Soil Decine to coarse, round ned, trace sitt, contage. (continued)	Water/NA ▼ Water Lev □ Water Lev ◆ NAPL ○ NAPL SCription	Ground Surface Ele Top of Casing Elev Northing: 5556777 PL Levels vel 1 vel 2	203	1570 1571 Easti	.402 .215 ng: 65323		•	Borehole Logged Date Drilled: Log Typed By: Reading within indicated scale Reading outside	By: AH 2020 08 31 VL Solid PVC
Soil De: ine to coarse, round ned, trace silt, contage. (continued)	▼ Water Lev □ Water Lev ♠ NAPL □ NAPL □ NAPL SCription	vel 1 vel 2 ed, some sand,	Stratigraphy Plot	Sample Interval Sore Run	e Number	ıı	•	indicated scale Reading outside	⊢ ⊢
ine to coarse, round ned, trace silt, conta se. <i>(continued)</i>	led to subround		Stra	Sar	둳ㅣ	Blow Count	% Recovery	Soil Vapour (ppm)	Well Name 1: RG_MW_FR3A
ned, trace silt, conta se. <i>(continued)</i>				0,0	Sar	В	% 10 ¹	10 ² 10 ³ 10 ⁴	
					FR3A-04		300		BENTONITE
rse grained, trace g				$\langle \rangle$					
ine to coarse, subro n), well graded.	unuea, containi	ing condies			R3A-06	8	30		
ine to coarse, subar ned, well graded.	ngular, some sa	ind, fine to		**************************************					RG_MW_FR3A
			e to coarse, subangular, some sand, fine to ed, well graded.	ed, well graded.	ie to coarse, subangular, some sand, fine to ed, well graded.	ed, well graded. NOTES	te to coarse, subangular, some sand, fine to ed, well graded.	ie to coarse, subangular, some sand, fine to ed, well graded.	ie to coarse, subangular, some sand, fine to ed, well graded.

•	22.20 2.42.4		To	(Client oal Lin				Borehol	e No. : RG_BH_FR3A
•))	SNC+LAVA	LIN	Regional		cation ndwate		oring			PAGE 3 OF 3
Drilling Boreho	Contractor Mud Bay Drilling Co. Ltd. Method Vibratory Sonic ole Dia. (m) 0.15 otted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5556777.	. (m̀) ´	1570 157	0 10 08 0.402 1.215 ting: 6532	233.95	0	Project Number: Borehole Logged Date Drilled: Log Typed By:	631283 By: AH 2020 08 31 VL
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Lev ▽ Water Lev ◆ NAPL ◇ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: RG_MW_FR3A
	Soil Des	cription		Str	Sar	Sar	ă	% 10	0 ¹ 10 ² 10 ³ 10 ⁴	
21-	GRAVEL, fine to coarse, subang coarse grained, well graded. (co. GRAVEL, fine to coarse, subang graded, dark brown, medium der Between 21.3 abd 22.2 m - less	ntinued) gular, some sil nse, medium p	t, trace clay, well olasticity, wet.			FR3A-07				SAND
22-	GRAVEL, fine to coarse, subang graded, dark brown, medium der	gular, some sil nse, medium p	t, trace clay, well plasticity, wet.							
24-	CLAYEY GRAVEL, fine gravel, s some sand, coarse grained, brown					FR3A-08		80		
25-	BOULDER, 330 mm, siltstone, but the coars subangular, some sand, coarse medium plasticity, damp.	e gravel, subr	ounded and brown, dense,							BENTONITE
26-	GRAVELLY CLAY, fine gravel, s some sand, fine grained, dark br					FR3A-09		-		
28-	At 27.4 m - light brown.									
29	At 28.3 m - dry.									
30-	Bottom of hole at 29.3 m.							.		
29				NOT Bolo	T ES led sa	imple de	enote	es sa	mple analyzed.	

"	SNC+LAVA	TINI	Т	eck C	Client oal Lin	nited			Boreh	ole No. : RG_BH_FR3B
"	SINCYLAVA	TTT.	Regional		cation ndwate	r Monit	oring			PAGE 1 OF 1
illing reho	Contractor Mud Bay Drilling Co. Ltd. Method Vibratory Sonic le Dia. (m) 0.15 otted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Electory Top of Casing Electory Northing: 5556778.2	. (m) ´	1570 157) 10 08).406 I.164 ing: 653	233.80)5	Project Numbe Borehole Logge Date Drilled: Log Typed By:	ed By: AH 2020 09 01
	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Le ✓ Water Le ◆ NAPL ◇ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: RG_MW_FR3B
í	Soil Desc	ription		Stra	Sar	Sar	BIG	% E	10 ¹ 10 ² 10 ³ 1	101
1-1	SILT, dark brown, loose, moist. SILTY SAND, coarse grained san	d, dark brow	n.		\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\			50		SAND
2-1	GRAVEL, fine to coarse, rounded coarse grained, well graded, light							50		BENTONITE
1— 1— 3—								80		RG_MW_FR3E
1111111										
7-	Between 6.7 m and 7.0 m - some medium plasticity. Below 7.0 m - some sand, coarse		-		> >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>					BENTONITE
3-	At 7.6 m - oxidation. Bottom of hole at 7.9 m.									
)			Г	NOT	-E0					
				NOT	E 3					

•	CNICAT ANIA	TTAT	Ted		lient oal Lin	nited			Boreho	le No. : RG_BH_FR4A
IJ	SNC · LAVA	LII	Regional G		cation Idwate	r Monito	oring			PAGE 1 OF 4
lling reho	Contractor Mud Bay Drilling Co. Ltd. Method Vibratory Sonic Dle Dia. (m) 0.15 Ottled Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Elev Top of Casing Elev. (Northing: 5556366.23	m) ´	1567 1568	0 10 08 7.791 3.550 ing: 6534	196.60)8	Project Number: Borehole Logged Date Drilled: Log Typed By:	
Deptin in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Lev □ Water Lev • NAPL □ NAPL	vel 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: RG_MW_FR4A
0-	SANDY SILT, fine grained sand, contains organic material.		oose, moist,	<u> </u>	w o	, w		% ₁₁	0 ¹ 10 ² 10 ³ 10	SAND
	SAND, fine to coarse grained, tra subrounded, well graded, dark bro			· . >						
2-	SAND and GRAVEL, fine to coar coarse gravel, rounded to subrou brown, loose, damp.	nded, well gra	aded, dark			FR4A-01				
3-	SAND, coarse grained, trace grave moist.	ei, fine, roun	ded, loose,							
	GRAVEL, fine to coarse, rounded fine grained, trace silt, well grade				> >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>					
	SAND, coarse grained, trace graves subrounded, light brown, loose, w		ded to			FR4A-02				
	SAND and GRAVEL, fine to coan coarse gravel, rounded to subrou brown, loose, wet. SANDY SILT, fine grained sand, medium plasticity, wet, oxidized coarse.	nded, well graden	aded, light edium dense,							
	At 8.4 m - less sand.					FR4A-03				
Ė				NOT Bold	ES led sa	mple de	enote	es sa	mple analyzed.	

						<u> </u>				
	CRIC T ATTA	TTNT	т	C eck Co	lient al Lin	nited			Borehol	e No. : RG_BH_FR4A
*))	SNC+LAVA	LIN	Regional		cation dwate	r Monito	ring			PAGE 2 OF 4
Drilling Boreho	Contractor Mud Bay Drilling Co. Ltd. Method Vibratory Sonic sle Dia. (m) 0.15 otted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5556366.	. (m) ´	1567 1568		96.60	8	Project Number: Borehole Logged Date Drilled: Log Typed By:	631283 By: AH 2020 09 01 VL
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Lev ✓ Water Lev ◆ NAPL ◇ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count		Page Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: RG_MW_FR4A
ă	Soil Des	cription		Stra	Sar	Sar	BIC	% 10	¹ 10 ² 10 ³ 10 ⁴	
10-	GRAVEL, fine to coarse, subrou coarse grained, trace silt, well gr (continued)					FR4A-04				
12-	SAND, fine grained, some silt, lig	ght brown, loo	se, wet.					80		
13-						FR4A-05				
15-	SAND and GRAVEL, fine to coa coarse gravel, well graded, grey,		and, fine to							BENTONITE
17-	SAND, coarse grained, some graubrounded, poorly graded, grey		nded to			FR4A-06		100		
18-	SANDY SILT, fine grained sand, dense, wet.	trace clay, da	ark grey, medium							
19-						FR4A-07				
-				NOT I Bolde	ES ed sa	mple de	enote	es sar	nple analyzed.	

					NA				1	
<i>.</i> 1)	SNC+LAVA	TINI	Te		Client oal Lin	nited			Borehol	e No. : RG_BH_FR4A
'/)	SINCYLAVA		Regional		cation ndwate	r Monite	oring		1	PAGE 3 OF 4
rilling oreho	Contractor Mud Bay Drilling Co. Ltd. Method Vibratory Sonic ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5556366.2	. (m) ´	1567 1568	0 10 08 7.791 3.550 ing: 6534	196.60	8	Project Number: Borehole Logged Date Drilled: Log Typed By:	631283 By: AH 2020 09 01 VL
Depth in Metres	Drilling Legend Sample Interval Vibrasonic Soil Des	▼ Water Lev ▼ Water Lev • NAPL ○ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count		Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm) 1 10² 10³ 10⁴ 10⁴	Solid PVC Slotted PVC Well Name 1: RG_MW_FR4A
222	SANDY SILT, fine grained sand, dense, wet. (continued) At 20.4 m - some orange mottling. GRAVEL, fine to coarse, subrout well graded, brown, loose, wet. At 21.9 m - some silt. At 22.6 m - less silt. At 23.2 m - some silt. SAND and GRAVEL, fine to coarse gravel, subrounded, well CLAYEY GRAVEL, fine to coarse silt, trace sand, fine grained, dart plasticity, damp. GRAVEL, coarse, subrounded, sepoorly graded, brown, loose, wet. GRAVEL, fine to coarse, subrout coarse grained, some silt, trace of loose, wet.	g. Inded to subar rse grained sa graded, brown e gravel, subr k brown-grey, some silt, cont	and, fine to n, loose, wet ounded, some dense, medium aining cobbles,			FR4A-08		80		RG_MW_FR4A SAND BENTONITE
29-	At 29.0 m - oxidation (orange mo	ottling).				FR4A-10		100		
0.			Г	8 /8/				100		<u> </u>
				NO1 Bold		mple de	enote	es sar	mple analyzed.	

	CRIC. T AND	TINI	Т	eck C	Client oal Lir	nited			Borehol	e No. : RG_BH_FR4A
7))	SNC · LAVA	LIIN	Regional		cation idwate	er Monito	ring			PAGE 4 OF 4
Drilling Boreh	g Contractor Mud Bay Drilling Co. Ltd. g Method Vibratory Sonic ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5556366.	r. (m̀) ´	156 156	0 10 08 7.791 3.550 ting: 6534	96.60	18	Project Number: Borehole Logged Date Drilled: Log Typed By:	631283 By: AH 2020 09 01 VL
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Lev □ Water Lev • NAPL ○ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	Recovery	indicated scale	Solid PVC Slotted PVC Well Name 1: RG_MW_FR4A
De	Soil Des	cription		Stra	San	Sam	Blo	℃ % 10 ¹	10 ² 10 ³ 10 ⁴	
31-31-32-	CLAYEY GRAVEL, fine to coars sand, coarse grained, well grade moist. (continued) Below 30.8 m - some silt, dense. Between 31.4 m and 31.7 m - let CLAYEY GRAVEL, fine to coars silt, well graded, dark brown, der	ed, brown, med, , damp. nse of coarse se gravel, subr	grained sand.			FR4A-11				BENTONITE
33-								100		
35	Bottom of hole at 34.1 m.									
36-										
38-										
40-				NOT Bolo	ES led sa	mple de	enote	es sam	nple analyzed.	

<i>.</i> 1)	SNC+LAVA	TTNT		Teck C	Client oal Lin	nited				Borehol	e No.	: RG_	BH_FR4B
<i>'\)</i>	SINC LAVA		Regiona		cation ndwate		oring				PAGE	1 OF	1
rilling oreho	Contractor Mud Bay Drilling Co. Ltd. Method Vibratory Sonic le Dia. (m) 0.15 otted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface E Top of Casing Ele Northing: 5556368	v. (m) ´	156 1568	0 10 08 7.848 8.624 ting: 6534	496.01	19		Project Number: Borehole Logged Date Drilled: Log Typed By:	Ву:	631283 AH 2020 09 VL	
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Lev ▽ Water Lev • NAPL ○ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	Recovery	•	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	<u></u>	Solid PVC Slotted P\	
ă	Soil Desc	cription		Stra	San	San	В	્ર	10 ¹	10 ² 10 ³ 10 ⁴		П	
0-	SANDY SILT, fine grained sand, material.	brown, loose	dry, organic					40	:				SAND
1-	SAND, fine to coarse grained, tra subrounded, well graded, dark br			♦ ♦				•			T		
2	SAND and GRAVEL, fine to coar coarse gravel, rounded to subrou brown, loose, damp.	nded, well gr	aded, dark										
	SAND, coarse grained, trace gray moist.	vel, fine, roun	ded, loose,										BENTONITE
3-	At 2.7 m - wet. GRAVEL, fine to coarse, rounded	l to oubround	od trace cond		\searrow			30				1//	
4-	fine grained, trace silt, well grade	d, dark browr	, loose, wet.										RG MW FR4B
5-1	SAND, coarse grained, trace grasubrounded, light brown, loose, w		ded to					50					NG_WW_FR4B
6-	SAND and GRAVEL, fine to coar	se grained sa	and, fine to					30					
7-	coarse gravel, rounded to subrou brown, loose, wet. SILTY SAND, fine to medium gra plasticity.			/									BENTONITE
8-	At 6.8 m - wood. Bottom of hole at 7.5 m.			ظظم	L · ^				·		L/_	/_/_/_	<i>∆</i>
111111													
9-													
10-													
				NOT	TES								

1	SNC · LAVA	TINI	Tec	k Coa	ent I I Lim	ited				В	oreho	ole No	o. : R	G_B	I_FR5A
IJ	SINCYLAVA		Regional G	Loca round		r Monito	ring					PAG	E 1	OF 6	
ing eho	Contractor Mud Bay Drilling Co. Ltd. Method Vibratory Sonic le Dia. (m) 0.15 otted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Elev. Top of Casing Elev. (I Northing: 5556260.73	m) ĺ	1566 1566		72.54	.6	E	Borehol Date Dr	Number e Logge illed: oed By:		AH	20 09 06	i
	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Le ▽ Water Le ◆ NAPL ◇ NAPL	PL Levels vel 1 vel 2	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count		Re ind	ading vicated ading of icated	scale outside scale	We	Slotte	I PVC ed PVC e 1: RG_	MW_FR5A
	Soil Des	cription		Str	S Sa	Sar	ă	% 10	0 ¹ 1	0 ²	10 ³ 1	o <u>1</u>			
+	SANDY SILT, fine grained sand, plasticity, moist, organic materia		oose, medium			FR5A-01		80 .				¥.			— SAND
	GRAVEL, fine to coarse, rounde coarse grained, containing cobbi wet. At 4.3 m - trace silt.					FR5A-02		40							
	At 4.9 m - less silt.							80							
	SAND, coarse grained, containir subrounded, grey, loose, wet.					FR5A-03									
	grained, well graded, grey, loose CLAYEY GRAVEL, fine to coars subrounded, medium dense, we	e, wet. e gravel, roun													
	SILTY SAND, fine to medium gramedium dense, medium plasticit At 9.8 m - orange-light brown.		ark grey,					100							
			I E	NOTE Bolde	S d saı	mple de	note	es sa	mple	anal	yzed. [Diame	eter 7"	' to 9.1	m.

				<u> </u>	<u> </u>				
M CNICAT AND	TTAT	Τε		Client oal Lin	nited			Borehol	e No. : RG_BH_FR5A
)) SNC+LAVA	XLIIN	Regional (cation ndwate	r Monito	ring			PAGE 2 OF 6
rilling Contractor Mud Bay Drilling Co. Ltd rilling Method Vibratory Sonic orehole Dia. (m) 0.15 pe/Slotted Pipe Dia. (m) 0.05/0.05	1.	Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5556260.7	(m)	1566 1566	0 10 08 6.144 6.937 ing: 6535	72.54	6	Project Number: Borehole Logged Date Drilled: Log Typed By:	631283 By: AH 2020 09 06 VL
Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Lev □ Water Lev • NAPL □ NAPL	vel 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count		Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: RG_MW_FR5A
Soil Des	scription		Strat	Sam Core	Sam	Blo	ਔ % 10	0 ¹ 10 ² 10 ³ 10 ⁴	
SANDY SILT, fine grained sand dense, medium plasticity, wet. At 12.0 m - some medium to concourse grained sand, some silt, At 13.7 m - less silt. At 14.3 m - more silt.	d, some clay, gr	and. brounded, fine to			FR5A-04		60		BENTONITE
At 16.5 m - less silt. SAND and GRAVEL, medium to coarse gravel, subrounded, well and the state of the state	to coarse graine Il graded, grey,	ed sand, fine to loose, wet.			FR5A-06		60		

•	ONTO T ATTA		Te		Client oal Lin	nited			Borehol	e No. : RG_BH_FR5A
	SNC · LAVA	LIN	Regional (cation ndwate	r Monito	oring			PAGE 3 OF 6
inç eh	g Contractor Mud Bay Drilling Co. Ltd. g Method Vibratory Sonic ole Dia. (m) 0.15 slotted Pipe Dia. (m) 0.05/0.05	_	Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5556260.7	(m)	1566 1566		572.54	16	Project Number: Borehole Logged Date Drilled: Log Typed By:	631283 By: AH 2020 09 06 VL
	Drilling Legend Sample Interval Vibrasonic Soil Des	▼ Water Let ▼ Water Let • NAPL • NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: RG_MW_FR5A
	SAND and GRAVEL, medium to coarse gravel, subrounded, well (continued) CLAYEY SILT, trace sand, fine medium dense, medium plastici (laminations). SAND and GRAVEL, fine to coarse gravel, subrounded, som loose, wet. At 22.6 m - containing cobbles. CLAYEY GRAVEL, fine to coarse gravel, subrounded, som loose, wet.	coarse graine graded, grey, to medium gra ty, wet, black r rse grained sa e silt, well gra	ined, brown, mottling and, fine to ded, brown, ounded.			FR5A-08		80	1 102 103 106	BENTONITE
9-				NOT Bold	ES led sa		enote	es sal	mple analyzed. D	iameter 7" to 9.1 m.

	- CDIC T ATIA		Te		Client oal Lin	nited			Borehol	e No. : RG_BH_FR5A
))	SNC+LAVA	LIN	Regional (cation ndwate	r Monito	oring			PAGE 4 OF 6
rilling oreho	g Contractor Mud Bay Drilling Co. Ltd. I Method Vibratory Sonic ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5556260.7	(m)	1566 1566	0 10 08 6.144 6.937 ting: 6535	572.54	6	Project Number: Borehole Logged Date Drilled: Log Typed By:	631283 By: AH 2020 09 06 VL
Deptn In Metres	Drilling Legend Sample Interval Vibrasonic Sail Doo	▼ Water Let ▼ Water Let • NAPL • NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	6 Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: RG_MW_FR5A
0-	Soil Des	•	n dense. wet.			0)		° 10	1 10 ² 10 ³ 10 ⁴	
3-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1	GRAVELLY CLAY, fine to coarse sand, fine to coarse grained, well medium plasticity, moist. At 34.4 m - more coarse grained CLAYEY SAND, coarse grained coarse, subrounded, medium de	sand, trace g	ravel, fine to			FR5A-12 FR5A-13		100		BENTONITE
37	GRAVELLY CLAY, fine to coarse sand, coarse grained, trace silt, or moist.									
0.				NOT Bold	TES led sa	mple de	enote	es sar	nple analyzed. D	iameter 7" to 9.1 m.

l) Ca	TC.T ATTA	TINT	Тє		Client oal Lim	ited			Borehol	e No. :	RG_BH_FR5A
// 5r	NC • LAVA		Regional (cation ndwate	r Monite	oring			PAGE 5	OF 6
lling Method rehole Dia. (m	Ole Dia. (m) 0.15 Top of Cas Stotted Pipe Dia. (m) 0.05/0.05 Northing: 5 Drilling Legend Wester/NADL Legels				1566 1566		572.54	6	Project Number: Borehole Logged Date Drilled: Log Typed By:	By: A	31283 NH 1020 09 06 /L
Drilling	Sample Interval Vibrasonic	▼ Water Lev ▼ Water Lev • NAPL • NAPL	vel 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count		Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Sk	lid PVC otted PVC me 1: RG_MW_FR5A
	Soil Des	cription		ξ	တီပိ	- S	ш	% 10	$0^1 10^2 10^3 10^7$		
<u> </u>	ace clay, grey, dense, low	w plasticity, mo	oist.					100			
SILTY S moist.	SAND, fine grained sand	, trace clay, lov	w plasticity, grey,		**************************************						
SANDY dense,	' SILT, fine grained sand low plasticity, moist.	, trace clay, gr	ey, medium								BENTONITE
At 46.3	m - some clay, medium	plasticity.						100			
	Y SAND, fine to coarse ç n dense, medium plastici		some silt, grey,								RG_MW_FR5A
				NOT Bold	T ES led sa	mple d	enote	es sa	mple analyzed. D	iameter ī	7" to 9.1 m.

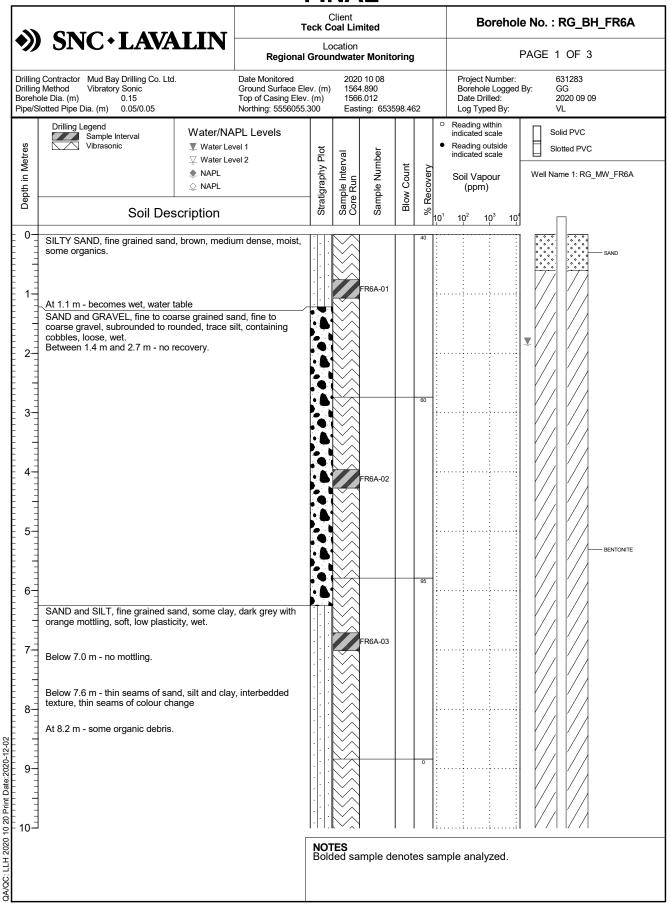
	CRIC T ATTA	TINI	т	eck C	Client oal Lin	nited				Borehol	le No. : RG_BH_FR5A
?))	SNC+LAVA		Regional		cation ndwate	r Monito	oring				PAGE 6 OF 6
Drilling Boreho	Contractor Mud Bay Drilling Co. Ltd. Method Vibratory Sonic Die Dia. (m) 0.15 Olotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5556260.	. (m) ´	1566 1566	0 10 08 6.144 6.937 ting: 6535	572.54	16	Bo Da	oject Number: rehole Logged te Drilled: g Typed By:	631283 By: AH 2020 09 06 VL
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Lev ⊽ Water Lev • NAPL ○ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Read indic Soil	ling within ated scale ling outside ated scale Vapour opm)	Solid PVC Slotted PVC Well Name 1: RG_MW_FR5A
De	Soil Des	cription		Straf	Sam	Sam	Blo	% R	0 ¹ 10 ²	10³ 10°	
53-	GRAVELLY CLAY, fine to coarse silt, grey, dense, medium plastic	sand, some g						100			SAND BENTONITE
57	BEDROCK, weathered, light gre fractures. Bottom of hole at 58.2 m.	y, fine grained	I, clay packed					100			
				NOT Bold	T ES led sa	mple de	enote	es sa	ample a	nalyzed. D	viameter 7" to 9.1 m.

. 17	CRIC. T AR7A	TINT	Те		client Dal Lim	nited			Borehol	e No. : RG_BH_FR5B
V)	SNC · LAVA	LLIN	Regional		cation idwate	r Monite	oring			PAGE 1 OF 3
rillin Ioreh	g Contractor Mud Bay Drilling Co. Ltd. g Method Vibratory Sonic nole Dia. (m) 0.15 Slotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5556257.3	(m)	1566 1567		573.816	3	Project Number: Borehole Logged Date Drilled: Log Typed By:	631283 By: AH 2020 09 06 VL
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Le ▽ Water Le ◆ NAPL ◇ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	Recovery	indicated scale	Solid PVC Slotted PVC Well Name 1: RG_MW_FR5B
<u> </u>	Soil Des	cription		Stra	Sar	Sar	ğ	% 10¹	10 ² 10 ³ 10 ⁴	
0- - 1- 2- 3- 4- 5-	SANDY SILT, fine grained sand, damp, contains organic material GRAVEL, fine to coarse, rounde fine to coarse grained, well grade	d to subround	ed, trace sand,					40		SAND
6-	SAND, coarse grained, trace grained, trace grained, grained, grained, grey, loos	nded, well gra						80		
8-	At 7.9 m - trace fine to medium ç	grained sand.								
9-	SILTY SAND, fine to medium gr. brown with orange-black mottling plasticity, wet.	ained sand, tr g, medium del	ace clay, light nse, low	NOT	ES			90		

Orilling Method Vibratory Sonic Soric Sor	OF 3 81283 H 020 09 06
Regional Groundwater Monitoring PAGE 2 Prilling Contractor Mud Bay Drilling Co. Ltd. Date Monitored Ground Surface Elev. (m) 1566.291 Top of Casing Elev. (m) 1567.027 Date Drilling Legend Sample Interval Vibrasonic Project Number: 63 Borehole Logged By: Al-Date Drilled: 20 Log Typed By: VL Water/NAPL Levels Water Level 1 Water Level 2 NAPL NAPL Soil Description Northing: 5556257.368 Soil Vapour (ppm) Soil Vapour (ppm) Soil Vapour (ppm) SILTY SAND, fine to medium grained sand, trace clay, light brown with orange-black mottling, medium dense, low plasticity, wet. (continued) At 10.1 m - fine grained sand, dark grey, no mottling.	81283 H J020 09 06 L d PVC
Drilling Method Vibratory Sonic Orehole Dia. (m) 0.15 Top of Casing Elev. (m) 1566.291 Top of Casing Elev. (m) 1567.027 Easting: 653573.816 Description Price Drilling Legend Price Drilling Drilling Legend Price Drilling Price Drilling Drilling Drilling Drilling Price Drilling	H 120 09 06 L d PVC tted PVC
Sample Interval Vibrasonic Water/NAPL Levels Water Level 1 Water Level 2 NAPL NAPL Soil Description Soil Vapour (ppm) Soil Description At 10.1 m - fine grained sand, dark grey, no mottling.	tted PVC
Soil Description O SILTY SAND, fine to medium grained sand, trace clay, light brown with orange-black mottling, medium dense, low plasticity, wet. (continued) At 10.1 m - fine grained sand, dark grey, no mottling.	
SILTY SAND, fine to medium grained sand, trace ciay, light brown with orange-black mottling, medium dense, low plasticity, wet. (continued) At 10.1 m - fine grained sand, dark grey, no mottling.	
SILT, trace sand, fine grained, dark grey, medium dense, wet.	
Below 12.2 m - brown with light brown mottling.	
SILTY SAND, fine grained sand, light brown, medium dense,	
SAND and GRAVEL, fine to coarse grained sand, fine to coarse gravel, subrounded, trace silt, well graded, loose, wet.	
At 14.3 m - more silt.	
	BENTONITE
At 15.8 m - less silt.	
Below 18.3 m - medium to coarse grained sand, no silt.	
NOTES	
NOTES	

	ONIC TATA	TTAT	Т		Client oal Lin	nited			Borehol	e No. : RG_BH_FR5B
 *))	SNC+LAVA	LIN	Regional		cation ndwate	er Monito	ring			PAGE 3 OF 3
Drilling Boreh	g Contractor Mud Bay Drilling Co. Ltd. g Method Vibratory Sonic ole Dia. (m) 0.15 Slotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5556257.	. (m̀) ´	1566 1567	0 10 08 6.291 7.027 ting: 6535	73.81	6	Project Number: Borehole Logged Date Drilled: Log Typed By:	631283 By: AH 2020 09 06 VL
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Lev ✓ Water Lev		hy Plot	iterval	umber	ınt	ery •	indicated scale Reading outside indicated scale	Solid PVC Slotted PVC Well Name 1: RG_MW_FR5B
Depth in		NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Soil Vapour (ppm)	Well Name 1. No_WW_1 Nob
20-	Soil Des	-		₩	ဖွဲ့ပိ	Š	В	% 10 ¹	10 ² 10 ³ 10 ⁴	
21-	SAND and GRAVEL, fine to coar coarse gravel, subrounded, trace (continued) CLAYEY SILT, trace sand, fine to medium dense, medium plasticit (laminations).	e silt, well grad	ded, loose, wet. ined, brown,					50		BENTONITE
22-	SAND and GRAVEL, fine to coar coarse gravel, subrounded, some brown, loose, wet.	rse grained sa e silt, containi	and, fine to ng cobbles,							
23-										RG_MW_FR5B
24-	Bottom of hole at 24.3 m.			000						
25	Bottom of hole at 2 no m.									
26										
27-										
28-										
29										
30-			_							
				NOT	ES					
·										

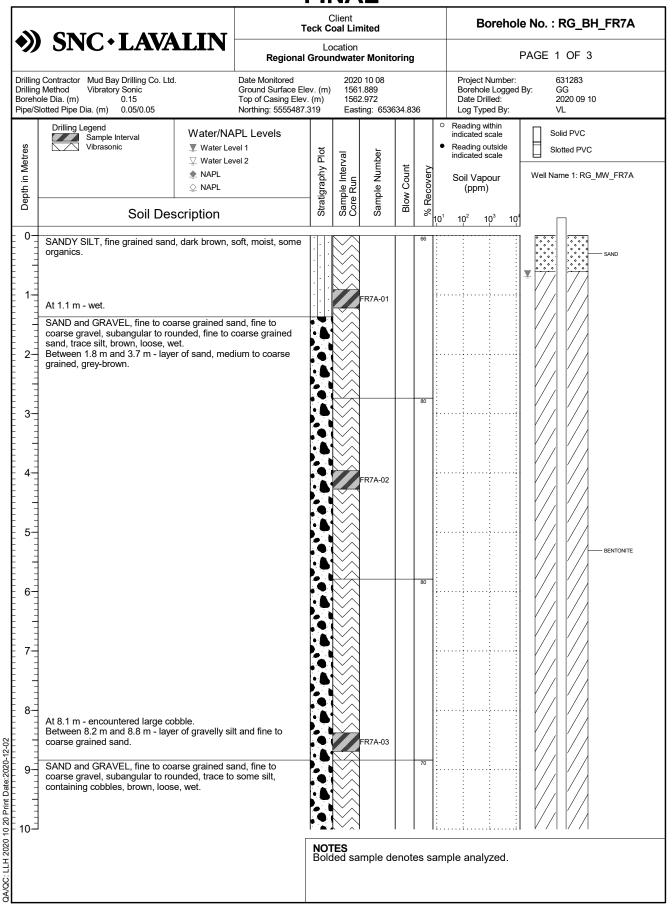
(l.	SNC+LAVA	TINI	Те	eck C	Client oal Lin	nited			Boreho	le No. : RG_BH_F	R5C
	SINC LAVA		Regional		cation ndwate	r Monite	oring			PAGE 1 OF 1	
lling reho	Contractor Mud Bay Drilling Co. Ltd. Method Vibratory Sonic le Dia. (m) 0.18 otted Pipe Dia. (m) 0.10/0.10		Date Monitored Ground Surface El Top of Casing Elev Northing: 5556259		1566 1567	0 10 08 6.118 7.184 ing: 653	570.54	1	Project Number: Borehole Logged Date Drilled: Log Typed By:	631283 I By: AH 2020 09 08 VL	
	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Lev ✓ Water Lev ◆ NAPL ◇ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: RG_MW	_FR5C
	Soil Desc	cription		Stra	San	San	Blc	% 10	0 ¹ 10 ² 10 ³ 10		
1	SANDY SILT, fine grained sand, damp, contains organic material.	brown, loose	low plasticity,		\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\			70		SA	ND
<u> </u>	GRAVEL, fine to coarse, rounder fine to coarse grained, well grade				}}}}						
								50			NTONITE
	SAND, coarse grained, trace gra	vel, fine to co	arse, loose, wet.					60		RG_M	IW_FR50
	GRAVEL, fine to coarse, subrour grained, well graded, grey, wet.	nded, some s	and, coarse		}}}}					SA	ND
	Bottom of hole at 9.0 m.										
				NOT	ES						



"	SNC · LAVA	TIN	To	eck C	Client oal Lin	nited			Borehol	e No. : RG_BH_FR6A
(1)	SINC*LAVA		Regional		cation ndwate	r Monito	ring			PAGE 2 OF 3
illing oreh	Contractor Mud Bay Drilling Co. Ltd. Method Vibratory Sonic ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5556055.	. (m)	1564 1566	10 08 .890 i.012 ing: 6535	98.46		Project Number: Borehole Logged Date Drilled: Log Typed By:	631283 By: GG 2020 09 09 VL
Deptin in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Lev □ Water Lev • NAPL □ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count		Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: RG_MW_FR6A
בֿ	Soil Des	cription		Stra	San Cor	San	Blc	% 10	0 ¹ 10 ² 10 ³ 10 ⁴	
0	SAND and SILT, fine grained sa orange mottling, soft, low plastic below 12.5 m - interbedded sec	ity, wet. <i>(conti</i>	nued)			FR6A-04		95		BENTONITE
6	SAND and GRAVEL, fine to coacoarse gravel, subangular to rou cobbles, light brown, loose, wet.	ınded, trace si	and, fine to It, containing			FR6A-05		65		RG_MW_FR6A
9				NOT Bold	ES led sa	mple de	enote	es sar	nple analyzed.	

	CRIC. I ANIA	TINI	Te	eck C	Client oal Lin	nited			Borehol	e No. : RG_BH_FR6A
*))	SNC+LAVA	LIN	Regional		cation dwate	er Monito	ring			PAGE 3 OF 3
Drilling Boreh	Contractor Mud Bay Drilling Co. Ltd. Method Vibratory Sonic De Dia. (m) 0.15 Olotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5556055.3	(m)	1564 1566	0 10 08 4.890 6.012 ting: 6535	98.46	62	Project Number: Borehole Logged Date Drilled: Log Typed By:	631283 By: GG 2020 09 09 VL
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Lev ▽ Water Lev • NAPL ○ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	covery	indicated scale	Solid PVC Slotted PVC Well Name 1: RG_MW_FR6A
Dept	Soil Des	cription		Stratig	Sampl Core F	Samp	Blow	% Recovery	10 ² 10 ³ 10 ⁴	
21 22 23	SAND and GRAVEL, fine to coa coarse gravel, subangular to rou cobbles, light brown, loose, wet. Below 21.3 m - grey, gradational decreasing amounts of gravel are SAND, fine to medium grained, swet.	nded, trace sil (continued) change to un	derlying unit,			FR6A-07		80		SAND BENTONITE
24-	Bottom of hole at 24.1 m.								<u>jj</u>	
25-										
26										
27-										
28-										
29-										
30-			ſ	NOT	ES					
C. CELL 2				Bold	led sa	mple de	enote	es sam	iple analyzed.	

<i>))</i>	SNC · LAVA	IIN	T ₁	eck C	Client oal Lin	nited			Boreho	le No. : RG_BH_FR6B
"	SINCILAVA		Regional		cation ndwate	r Monite	oring			PAGE 1 OF 1
illing reho	Contractor Mud Bay Drilling Co. Ltd. Method Vibratory Sonic le Dia. (m) 0.15 otted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5556055.	. (m) ´	1564 1566	0 10 08 4.886 6.047 ing: 6538	596.40)4	Project Number: Borehole Logged Date Drilled: Log Typed By:	631283 d By: GG 2020 09 09 VL
Deput in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Lev ✓ Water Lev ◆ NAPL ◇ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: RG_MW_FR6B
5	Soil Des	cription		Stra	San	San	Blo	N %	0 ¹ 10 ² 10 ³ 10	
1	SILTY SAND, fine grained sand, damp-moist, some organics (roo	brown, mediuts, debris).	ım dense,					60		SAND
<u> </u>	At 1.2 m - wet, water table. SAND and GRAVEL, fine to coar coarse gravel, rounded to subroucobbles, brown, loose, wet.	rse grained sa ınded, trace s	and, fine to ilt, containing							T
								50		BENTONITE
1-										RG_MW_FR6E
5										SAND
								90		
7	Bottom of hole at 7.3 m.									BENTONITE
111111111										
1111111										
)			ſ	NOT	ES					
					-					



					N.H	<u> </u>				
<i>(1)</i>	CNICAT ANIA	TTNT	Те		Client oal Lin	nited			Borehol	e No. : RG_BH_FR7A
"	SNC+LAVA		Regional		cation ndwate	r Monito	oring			PAGE 2 OF 3
ling eho	Contractor Mud Bay Drilling Co. Ltd. Method Vibratory Sonic ole Dia. (m) 0.15 olotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5555487.3	. (m)	1561 1562	0 10 08 1.889 2.972 ing: 6536	34.836		Project Number: Borehole Logged Date Drilled: Log Typed By:	631283 By: GG 2020 09 10 VL
	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Lev □ Water Lev • NAPL □ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	indicated scale	Solid PVC Slotted PVC Well Name 1: RG_MW_FR7A
	Soil Des	cription		Stra	Sarr	San	OIB	Ƴ 8101	10² 10³ 10⁴	
1	SAND and GRAVEL, fine to coar coarse gravel, subangular to rour containing cobbles, brown, loose	nded, trace to	some silt,			FR7A-04				
milniğini	Between 11.3 m and 11.6 m - ler	ns of sand and	d gravel, silty.				8	0		
3						FR7A-05				BENTONITE
						FR7A-06	9	0		
	SAND, medium grained, grey, lo	ose, wet.					9	0		RG_MW_FR7A
LuntunTun						FR7A-07				SAND
9-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1				NOT Bold	TES led sa	mple de	enotes	sam	nple analyzed.	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,

	CRIC. I ANA	TINI	To	eck C	Client oal Lin	nited			Borehol	e No. : RG_BH_FR7A
7))	SNC · LAVA	LLIN	Regional		cation idwate	er Monito	ring			PAGE 3 OF 3
Drilling Boreh	g Contractor Mud Bay Drilling Co. Ltd. g Method Vibratory Sonic ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5555487.	. (m) ´	156° 156°	0 10 08 1.889 2.972 ting: 6536	34.83	s6	Project Number: Borehole Logged Date Drilled: Log Typed By:	631283 By: GG 2020 09 10 VL
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Lev ✓ Water Lev ◆ NAPL ◇ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	Recovery	indicated scale	Solid PVC Slotted PVC Well Name 1: RG_MW_FR7A
Dep	Soil Des	cription		Strati	Samp	Samp	Blov	% 101	10² 10³ 10⁴	
20-	SAND, medium grained, grey, lo	ose, wet. (cor	ntinued)					100		SAND
22-	SAND, fine grained, some grave subangular, trace silt, brown-gre Between 22.6 m and 23.5 m - si	y, very dense,				FR7A-08				BENTONITE
23-	Below 23.5 m - some silt.									
25	Bottom of hole at 24.1 m.									
26-										
27-										
28-										
29										
30										
GAVGC. LEH ZOZO				NOT Bold	ES led sa	mple de	enote	es san	nple analyzed.	

•		TTNT	Teck C	Client cal Lir	nited			Borehol	e No. : RG_BH_FR7B
))	SNC+LAVA	LIN	L Regional Grou	ocation ndwate		oring			PAGE 1 OF 1
illing oreho	Contractor Mud Bay Drilling Co. Ltd. Method Vibratory Sonic sle Dia. (m) 0.15 otted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Elev. (m Top of Casing Elev. (m) Northing: 5555484.973	156 156	0 10 08 1.841 2.856 ting: 6536	34.015		Project Number: Borehole Logged Date Drilled: Log Typed By:	631283 By: GG 2020 09 10 VL
Depui III Meiles	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Le ▽ Water Le ◆ NAPL ◇ NAPL	1 ⊆	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: RG_MW_FR7B
á	Soil Des	cription	Stra	San	San	В	% 10 ¹	10 ² 10 ³ 10 ⁴	П
0	SILTY SAND, fine grained sand interbedded textures (colouring). At 1.4 m - wet, water table. SAND and GRAVEL, fine to coacoarse gravel, subrounded to rocobbles, brown, loose, wet.	some organic	and, fine to				70		SAND
3	Between 3.7 m and 4.0 m - lens some gravel, fine to coarse, sub	e of sand, me rounded to rou	dium grained, unded.				70		BENTONITE
2-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1							75		RG_MW_FR7B
6 -									BENTONITE
' = = = =	Bottom of hole at 7.3 m.		<u> </u>]				
8-1-1-1									
0			NO	TES					

Project C		Teck Coal	Drilling Coordinates:652228.9 Drilling Method: Diamond		<u> </u>		ution: 1599.05 UTM NA	
Project N	Name:	FRO Swift Ponds Seepage	Location: FRO Swi	ft Pond		Dip (from Hor	iz.): 90°	Reviewed by: D.Kenn
Project L	Locatio	n: Fording River Operations	Date Started: Dec 10, 20 D	ate Completed	: Dec 11, 20	Drilled Depth:	12.4 m	Revision No.: 1, 1/21/
[E	Ê –	LITHOLOGY	/ PROFILE	CC	ORE RECOV	/ERY		
Ê.	ELEVATION (r	SOIL/ROCK D	ESCRIPTION	Total Core Recovery (%)	Solid Core Recovery (%)	Rock Quality Designation (%)	WELL INSTALLATION DETAILS	COMMENTS
.2 159	98	Grey to brown clasts of boulde sub-round clasts. Clasts consi siltstone/shale.	rs and cobbles. Sub-angular to st of mudstone, siltstone and limey	9.	20 40 60 80	20 40 60 80	Y	HQ (96mm diameter) diamond core through overburden. 16/12/20 - After well install and development. Water level @ 2.58 n
7 159 3 159 3 159	91	Interbedded dark and light grey	y bands of lithified silt and clay, es, bedding dips between 60 and 75	100 100 100 95	60 74 90 89 58	25 32 80 80 0 64		HW Surface casing advanced to 5. mbgs.
12 158	87							End of Borehole @ 12.4 mbgs. 51mm diameter PVC monitoring we installed to 11 meters below ground surface (mbgs). 3.0 meter long, 10 slot PVC screen 7.9 to 10.9 mbgs. 10/20 Filter sand from 7 to 11.2 mb Time release bentonite tablets from to 12.4 mbgs and from 0.0 to 7.0 m Monument style protective casing. Pressure and temperature datalogo installed on hourly reading schedule

RECORD OF FR MW20-01S Project Number: VE52842 Drilling Coordinates:652228.43 N, 5558245.26 E Surface Elevation: 1599.03 m Project Client: Drilling Method: **Teck Coal** Diamond Logged by: **B.Chernoff** Datum: UTM NAD 83 Project Name: FRO Swift Ponds Seepage Location: FRO Swift Pond _ Dip (from Horiz.): Reviewed by: D.Kennedy 90° Date Started: <u>Dec 12, 20</u> Date Completed: <u>Dec 12, 20</u> Drilled Depth: Project Location: Fording River Operations Revision No.: 1, 1/21/21 5.7 m **CORE RECOVERY** LITHOLOGY PROFILE Ξ Ξ WELL INSTALLATION Rock Quality Designation (%) Total Core Solid Core **COMMENTS** SOIL/ROCK DESCRIPTION Plot DEPTH DETAILS Recovery (%) Recovery (%) Graphic 20 40 60 80 20 40 60 80 20 40 60 80 Grey to brown clasts of boulders and cobbles. Sub-angular to Csub-round clasts. Clasts consist of Mudstone, Siltstone and Limey Siltstone/Shale. 1598) [HQ (96mm diameter) diamond core through overburden. 1597 16/12/20 - After well install and development. Water level @ 2.23 mbgs 10 1596. 1595. 1594 HW Surface casing advanced to 5.7 70 100 Interbedded dark and light grey bands of lithified silt and clay 51mm diameter PVC monitoring well installed to 5.6 meters below ground surface (mbgs). surface (mogs). 1.5 meter long, 10 slot PVC screen from 4 to 5.5 mbgs. 10/20 Filter sand from 3.5 to 5.65 mbgs. Time release bentonite tablets from 5.65 to 5.7 mbgs and from 0.0 to 3.5 mbgs. Monument style protective casing. Pressure and temperature datalogger installed on hourly reading schedule. Wood Environment and Infrastructure 4445 Lougheed Highway Burnaby, British Columbia Canada V5C 0E4 Tel +1(604) 294-3811 Fax +1(604) 294-4664 Borehole details as presented do not constitute a thorough understanding of all potential conditions present and requires interpretative assistance from a qualified Engineer. In addition, borehole information should be read in conjunction with the report for which it was commissioned and the accompanying 'General Report Notes'. For explanatin of terms and symbols used in soil and rock logging, refer to Appendix - A. www.woodplc.com

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RECORD OF FR MW20-02D Project Number: VE52842 Drilling Coordinates:652176.55 N, 5558372.53 E Surface Elevation: 1598.93 m Project Client: Drilling Method: **Teck Coal** Diamond Logged by: Datum: UTM NAD 83 B.Chernoff Project Name: FRO Swift Ponds Seepage Location: FRO Swift Pond Dip (from Horiz.): <u>90°</u> Reviewed by: D.Kennedy Date Started: <u>Dec 13, 20</u> Date Completed: <u>Dec 14, 20</u> Project Location: Fording River Operations Drilled Depth: Revision No.: 1, 1/21/21 15.7 m **CORE RECOVERY** LITHOLOGY PROFILE Ξ Ξ ELEVATION WELL INSTALLATION Total Core Solid Core Rock Quality Designation (%) **COMMENTS** SOIL/ROCK DESCRIPTION Plot DEPTH DETAILS Recovery (%) Recovery (%) Graphic 20 40 60 80 20 40 60 80 20 40 60 80 Grey to brown cobbles and gravel. Trace clay and silt, some sand. CSub-round clasts composed of limestone/limey shale, mudstone, quartzite. 1598 HQ (96mm diameter) diamond core through overburden. 0 1597 1596. 7 1595 16/12/20 - After well install and development. Water level @ 4.08 mbgs 1594 HW Surface casing advanced to 6.7 1593 6 Interbedded dark and light grey bands of lithified silt and clay, 80 0 0 occasional calcite filled fractures, bedding dips between 60 and 75 1592 degress from horizontal 100 32 30 1591 100 98 1590. 100 64 43 10 1589 100 83 90 1588 1587. .12 90 1586. .13 98 95 1585. 100 80 1584 15 100 76 End of Borehole @ 15.7 mbgs. 51mm diameter PVC monitoring well installed to 15.6 meters below ground installed to 13.5 meters below ground surface (mbgs). 3.0 meter long, 10 slot PVC screen from 12.6 to 15.6 mbgs. 10/20 Filter sand from 9.5 to 15.7 mbgs. Time release bentonite tablets from 0.0 to 9.5 mbgs. Monument style protective casing. Pressure and temperature datalogger installed on hourly reading schedule. Wood Environment and Infrastructure 4445 Lougheed Highway Burnaby, British Columbia Canada V5C 0E4 Tel +1(604) 294-3811 Fax +1(604) 294-4664 Borehole details as presented do not constitute a thorough understanding of all potential conditions present and requires interpretative assistance from a qualified Engineer. In addition, borehole information should be read in conjunction with the report for which it was commissioned and the accompanying 'General Report Notes'. For explanatin of terms and symbols used in soil and rock logging, fefer to Appendix - A. www.woodplc.com

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GALORE CREEK - 2011 SI PROGRAM

RECORD OF FR MW20-02S Project Number: VE52842 Drilling Coordinates:652175.93 N, 5558374.39 E Surface Elevation: 1598.94 m Project Client: Drilling Method: **Teck Coal** Diamond Logged by: **B.Chernoff** Datum: UTM NAD 83 Project Name: FRO Swift Ponds Seepage Location: FRO Swift Pond _ Dip (from Horiz.): <u>90°</u> Reviewed by: D.Kennedy Date Started: <u>Dec 14, 20</u> Date Completed: <u>Dec 15, 20</u> Drilled Depth: Project Location: Fording River Operations Revision No.: 1, 1/21/21 6.3 m **CORE RECOVERY** LITHOLOGY PROFILE Ξ Ξ ELEVATION WELL INSTALLATION Rock Quality Designation (%) Total Core Solid Core **COMMENTS** SOIL/ROCK DESCRIPTION Plot DEPTH Recovery (%) DETAILS Recovery (%) Graphic 20 40 60 80 20 40 60 80 20 40 60 80 Grey to brown cobbles and gravel. Trace silt and clay, some sand. CSub-round clasts composed of limestone/limey shale, mudstone, quartzite. 1598.) [HQ (96mm diameter) diamond core through overburden. 1597 16/12/20 - After well install and 1596. development. Water level @ 2.67 mbgs 12 1595. 1594 CHW Surface casing advanced to 6.3 1593. 6 End of Borehole @ 6.3 mbgs. 51mm diameter PVC monitoring well installed to 6.3 meters below ground Installed to 6.3 meters below ground surface (mbgs). 1.5 meter long, 10 slot PVC screen from 4.6 to 6.1 mbgs. 10/20 Filter sand from 3.8 to 6.3 mbgs. Time release bentonite tablets from 0.0 to 3.8 mbgs. Monument style protective casing. Pressure and temperature datalogger installed on hourly reading schedule. Wood Environment and Infrastructure 4445 Lougheed Highway Burnaby, British Columbia Canada V5C 0E4 Tel +1(604) 294-3811 Fax +1(604) 294-4664 Borehole details as presented do not constitute a thorough understanding of all potential conditions present and requires interpretative assistance from a qualified Engineer. In addition, borehole information should be read in conjunction with the report for which it was commissioned and the accompanying 'General Report Notes'. For explanatin of terms and symbols used in soil and rock logging, refer to Appendix - A. www.woodplc.com

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File: FRO SWIFT POND 2.GPJ

GALORE CREEK - 2011 SI PROGRAM

RECORD OF FR MW20-03D Project Number: VE52842 Drilling Coordinates:652186.64 N, 5558167.42 E Surface Elevation: 1600.71 m Project Client: Drilling Method: **Teck Coal** Diamond Logged by: Datum: UTM NAD 83 B.Chernoff Project Name: FRO Swift Ponds Seepage Location: FRO Swift Pond Dip (from Horiz.): <u>90°</u> Reviewed by: D.Kennedy Date Started: <u>Dec 15, 20</u> Date Completed: <u>Dec 16, 20</u> Project Location: Fording River Operations Drilled Depth: Revision No.: 1, 1/21/21 14 m **CORE RECOVERY** LITHOLOGY PROFILE Ξ Ξ ELEVATION WELL INSTALLATION Total Core Solid Core Rock Quality Designation (%) **COMMENTS** SOIL/ROCK DESCRIPTION Plot DEPTH DETAILS Recovery (%) Recovery (%) Graphic 20 40 60 80 20 40 60 80 20 40 60 80 Brown to grey gravel and cobbles. Trace silt and some sand. CSub-round clasts composed of sandstone and siltstone. 1600_ HQ (96mm diameter) diamond core through overburden. 0 1599 9 1598 C17/12/20 - After well install and development. Water Level @ 2.03 1597 HW Surface casing advanced to 4.5 CInterbedded dark and light grey bands of lithified silt and clay, occasional calcite filled fractures, bedding dips between 60 and 75 1596 100 72 33 degress from horizontal 100 **5**0 n 1595 6 96 90 1594 78 1593. .8 43 87.5 50 1592 9 94 1591 10 98 95 0 1590 100 80 0 1589 .12 100 76 0 40 2 Ö 1588. __13 100 17 1587. 51 100 18 End of Borehole @ 14.0 mbgs. 51mm diameter PVC monitoring well installed to 14.0 meters below ground surface (mbgs). surface (mogs). 3.0 meter long, 10 slot PVC screen from 10 to 13 mbgs. 10/20 Filter sand from 9.0 to 13.4 mbgs. Time release bentonite tablets from 0.0 to 9.0 mbgs and from 13.4 to 14.0 mbgs. Monument style protective casing. Pressure and temperature datalogger installed on hourly reading schedule. Wood Environment and Infrastructure 4445 Lougheed Highway Burnaby, British Columbia Canada V5C 0E4 Tel +1(604) 294-3811 Fax +1(604) 294-4664 Borehole details as presented do not constitute a thorough understanding of all potential conditions present and requires interpretative assistance from a qualified Engineer. In addition, borehole information should be read in conjunction with the report for which it was commissioned and the accompanying 'General Report Notes'. For explanatin of terms and symbols used in soil and rock logging, refer to Appendix - A. www.woodplc.com Page: 1 of 1

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File: FRO SWIFT POND 2.GPJ

GALORE CREEK - 2011 SI PROGRAM

RECORD OF FR MW20-03S Project Number: VE52842 Drilling Coordinates:652187.38 N, 5558165.82 E Surface Elevation: 1600.70 m Project Client: Drilling Method: **Teck Coal** Diamond Logged by: **B.Chernoff** Datum: UTM NAD 83 Project Name: FRO Swift Ponds Seepage Location: FRO Swift Pond __ Dip (from Horiz.): Reviewed by: D.Kennedy 90° Date Started: <u>Dec 17, 20</u> Date Completed: <u>Dec 17, 20</u> Drilled Depth: Project Location: Fording River Operations 4.2 m Revision No.: 1, 1/21/21 **CORE RECOVERY** LITHOLOGY PROFILE Ξ Ξ ELEVATION WELL INSTALLATION Rock Quality Designation (%) Total Core Solid Core **COMMENTS** SOIL/ROCK DESCRIPTION Plot DEPTH Recovery (%) DETAILS Recovery (%) Graphic 20 40 60 80 20 40 60 80 20 40 60 80 Brown to grey gravel and cobbles. Trace silt and clay, some sand 0 Sub-round clasts comprised of sandstion and siltstone. 1600_ HQ (96mm diameter) diamond core through overburden. 0 1599 .2 11 16/12/20 - After well install and development. Water level @ 2.21 mbgs 1598 0 .3 1597 HW Surface casing advanced to 4.2 0 End of Borehole @ 4.2mbgs. 51mm diameter PVC monitoring well installed to 4.2 meters below ground surface (mbgs). 1.5 meter long, 10 slot PVC screen from 2.5 to 4.0 mbgs. 10/20 Filter sand from 2.0 to 4.2 mbgs. Time release bentonite tablets from 0.0 to 2.0 mbgs. Monument style protective casing. Pressure and temperature datalogger installed on hourly reading schedule. Wood Environment and Infrastructure 4445 Lougheed Highway Burnaby, British Columbia Canada V5C 0E4 Tel +1(604) 294-3811 Fax +1(604) 294-4664 www.woodplc.com

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Greenhills Operations Borehole Logs – Wells for Evaluation

411	CNICAT ANA	TINI	Te		lient al Lim	ited			Boreho	le No. : GH_BH_FR1A
7/)	SNC·LAVA	LLIIN	Teck Coal		cation onal G	roundw	ater			PAGE 1 OF 6
Drilling Boreho	Contractor JR Drilling Method Dual Rotary ble Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05	G T	Date Monitored Ground Surface Electory op of Casing Elev. Horthing: 5545628.6	(m) '	1495 1496		161.21	9	Project Number: Borehole Logger Date Drilled: Log Typed By:	
Depth in Metres	Drilling Legend Sample Interval ▼▼▼▼ Air Rotary	Water/NAPI ▼ Water Level ▽ Water Level ◆ NAPL ◇ NAPL	1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count		Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: GH_MW_FR1A
De	Soil Des	cription		Stra	San	San	Blo	& % 10	0 ¹ 10 ² 10 ³ 10	
2-	SAND and GRAVEL (FILL), fine to coarse gravel, subrounded to graded, brown, loose, dry. Between 1.5 m and 4.6 m - dam Between 2.4 m and 3.0 m - conf	subangular, trac	ed sand, fine he silt, well							
4-	SILT and CLAY, poorly graded, plasticity, damp.	dark grey, soft, n	nedium							
6-	SAND and GRAVEL, fine to coacoarse gravel, subrounded, tracloose, damp.									BENTONITE
8 9 9 10 11 10 11 11 11 11 11 11 11 11 11 11	SILTY GRAVEL, fine gravel, sul coarse grained, trace clay, well sulface standard CLAY, trace gravel, f graded, dark grey, soft, medium wood fragments.	graded, brown, lo	pose, damp.							X
10 2021				NOTI Differ and s	rentia	tion be grain s	twee size a	n silt analys	and clay fraction sis samples.	s inferred based on plasticity

	CRIC. T AND	TTAT	To	eck C	Client oal Lim	ited				Borehol	e No. :	GH_BH	_FR1A
7))	SNC·LAVA	LLIN	Teck Coa		cation ional G	roundv	vater				PAGE 2	OF 6	
Drilling Boreh	g Contractor JR Drilling g Method Dual Rotary ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5545628.	(m)	1495 1496		461.21	9		Project Number: Borehole Logged Date Drilled: Log Typed By:	By: A	884431 AH 2021 09 01 /L	
Depth in Metres	Drilling Legend Sample Interval ▼▼▼ Air Rotary	Water/NA ▼ Water Lev □ Water Lev • NAPL □ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	• F	Reading within ndicated scale Reading outside ndicated scale Soil Vapour (ppm)	Slo	olid PVC otted PVC me 1: GH_N	/W_FR1A
Dep	Soil Des	scription		Strati	Samp	Samp	Blov	% Re	10 ¹	10 ² 10 ³ 10 ⁴			
10—110—110—110—110—110—110—110—110—110—	SILT sand CLAY, trace gravel, tgraded, dark grey, soft, medium wood fragments. (continued) Between 11.0 m and 15.2 m - v From 15.2 m - no wood fragments from 15.2 m - v SILT, some clay, trace sand, fin soft, medium plasticity, moist, laclay and brown sand.	ery soft, moist	rained, grey,										— BENTONITE
2A/QC: TC 202111				NOT Diffe and	erentia	tion be grain s	twee	n sil	t and	d clay fractions samples.	sinferred	d based o	on plasticity

	CRIC. T ATTA	TINI	Т		Client Coal Lin	nited			Boreho	le No. : GH_BH	_FR1A
*/)	SNC·LAVA		Teck Coa		ocation gional C	Froundy	vater			PAGE 3 OF 6	
Drilling Boreh	g Contractor JR Drilling g Method Dual Rotary ole Dia. (m) 0.15 slotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5545628.	. (m) ´	1498 1498	1 10 07 5.263 6.099 ting: 6534	461.2 ⁻	19	Project Number: Borehole Logger Date Drilled: Log Typed By:		
Metres	Drilling Legend Sample Interval ▼▼▼ Air Rotary	▼ Water Lev		ıy Plot	erval	ımber	nt	У	 Reading within indicated scale Reading outside indicated scale 	Solid PVC Slotted PVC	
Depth in Metres		MAPL NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Soil Vapour (ppm)	Well Name 1: GH_N	IW_FR1A
	Soil Des	scription		Str	Sar	Sar	ā	%	10 ¹ 10 ² 10 ³ 10	31	
21-	SILT, some clay, trace sand, fin soft, medium plasticity, moist, la clay and brown sand. (continued SANDY SILT, fine to coarse gragravel, fine, subrounded, grey, s	aminations of g d)	ne clay, trace								
23-											
25-	SILT and CLAY, trace sand, me gravel, fine, subangular, well graplasticity, moist.	edium to coarse aded, grey, sof	e grained, trace t, medium								- BENTONITE
0A/QC: TC 2021 1110 Print Date:2023-03-24	At 29.2 m - no sand.			NO Diffi and	erentia	ation be	twee	en sil	t and clay fraction sis samples.	s inferred based o	on plasticity

	SNC+LAVA	TINI	т	eck C	Client oal Lim	ited			Bore	nole No.	: GH_BH_FR1A
Y	SINCYLAVA		Teck Coa		ication	roundv	/ater			PAGE	4 OF 6
Drilling Boreho	Contractor JR Drilling Method Dual Rotary ble Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5545628.	. (m) ´	1495 1496		161.21	19	Project Num Borehole Loç Date Drilled: Log Typed B	ged By:	684431 AH 2021 09 01 VL
Depth in Metres	Drilling Legend Sample Interval ▼▼▼▼ Air Rotary	Water/NA ▼ Water Lev ▽ Water Lev ◆ NAPL ◇ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	 Reading within indicated scale Reading outsid indicated scale Soil Vapour (ppm) 		Solid PVC Slotted PVC Name 1: GH_MW_FR1A
ď	Soil Des	cription		Stra	Sar	Sar	В	Ж.	10 ¹ 10 ² 10 ³	10 ⁴	
33-33-33-33-33-33-33-33-33-33-33-33-33-	SILT and CLAY, trace sand, me gravel, fine, subangular, well graplasticity, moist. (continued) Between 32.0 m and 39.6 m - fil	aded, grey, sof	t, medium								BENTONITE
37 - 37 - 37 - 37 - 37 - 37 - 37 - 37 -	Between 36.6 m and 39.6 m - tr grained, laminated with more do										
40- 40-	At 39.6 m - some sand, fine to n	nedium graine	d.		* * * * * * * * *						
OA/QC: TC 2021 11 10 Print Date: 2023-03-24 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0				NOT Diffe and	erentia	tion be grain s	twee	en sil analy	t and clay fract ysis samples.	ons inferr	ed based on plasticity

	CNIC . T ANIA	TINI	T ₁	eck C	Client oal Lin	nited				Borehol	e No. :	GH_BH	_FR1A
7))	SNC·LAVA	LLIIN	Teck Coa		ocation jional C	Froundy	vater				PAGE 5	OF 6	
Drilling Boreh	J Contractor JR Drilling J Method Dual Rotary Dle Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5545628.	(m) ´	1498 1498	1 10 07 5.263 6.099 ing: 653	461.2°	19		Project Number: Borehole Logged Date Drilled: Log Typed By:	By: A	684431 AH 2021 09 01 /L	
Depth in Metres	Drilling Legend Sample Interval ▼▼▼ Air Rotary	Water/NA ▼ Water Lev □ Water Lev • NAPL □ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	•	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Slo	olid PVC otted PVC me 1: GH_I	MW_FR1A
De	Soil Des	scription		Strat	Sam	Sam	Bo	% R	10 ¹	10 ² 10 ³ 10 ⁴			
40 – 40 – 41 – 41 – 41 – 42 – 42 – 43 – 44 – 44 – 44 – 45 – 45 – 45 – 45	SILT and CLAY, trace sand, me gravel, fine, subangular, well graplasticity, moist. (continued) Between 44.5 m and 45.7 m - n medium grained, occuring in lendary and the state of the substitution of the state of t	edium to coarse aded, grey, sof	sand, fine to									G	— BENTONITE H_MW_FR1A — SAND
3A/QC: TC 2021				NOT Diffe and	erentia	ition be grain s	twee	en sil anal	t ar ysis	nd clay fractions samples.	sinferred	d based o	on plasticity

	CNICAT ANIA	TINI			Client coal Lir	nited				Boreho	le No. : GH_BH_FR1A
7)	SNC+LAVA		Teck Co		ocation jional (/ater				PAGE 6 OF 6
Drillin Boreh	g Contractor JR Drilling g Method Dual Rotary ole Dia. (m) 0.15 Slotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface E Top of Casing Ele Northing: 5545628	v. (m)	149 149	1 10 07 5.263 6.099 ting: 6534	461.2°	19		Project Number: Borehole Logged Date Drilled: Log Typed By:	684431 d By: AH 2021 09 01 VL
Metres	Drilling Legend Sample Interval ▼▼▼ Air Rotary	▼ Water Le		ıy Plot	erval	ımber	ŧ	, Y	•	indicated scale Reading outside indicated scale	Solid PVC Slotted PVC
Depth in Metres		NAPL NAPL NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery		Soil Vapour (ppm)	Well Name 1: GH_MW_FR1A
	Soil Des	scription		ਲ	တိပိ	й	Ш	%	1 ₀ 1	10 ² 10 ³ 10	4
50 - 51 - 51 - 52 - 53 - 55 - 56 - 56 - 57 - 58 - 57 - 58 - 57 - 58 - 58 - 58	Between 52.7 m and 59.7 m - c boulders.	ubangular, son	ne silt, brown,								SAND BENTONITE
WQC: IC ZUZI				Diff	TES erentia selec	ation be t grain s	twee	en si anal	lt a	nd clay fraction s samples.	s inferred based on plasticity

	CNIC . T ANIA	TINI	Te		lient oal Lim	ited			E	Borehol	e No. :	GH_BH	I_FR1B
 7))	SNC · LAVA		Teck Coa		cation onal G	roundv	vater			I	PAGE 1	OF 3	
Drilling Boreho	Contractor JR Drilling Method Dual Rotary ble Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05	,	Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5545627.4	(m) ´	1495 1496		460.33	31	Boreho Date D Log Ty	/ped By:	By:	684431 JM 2021 09 08 /L	
Depth in Metres	Drilling Legend Sample Interval ▼▼▼▼ Air Rotary	Water/NA ▼ Water Lev □ Water Lev • NAPL ○ NAPL	rel 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	 Reading indicated Reading indicated Soil Va (ppr 	d scale outside d scale apour	Sle	olid PVC otted PVC me 1: GH_I	MW_FR1B
De	Soil Des	cription		Strai	Sam	Sam	Blo	Й % 1	0 ¹ 10 ²	10 ³ 10 ⁴	ſ		
2-	SAND and GRAVEL, fine to coacoarse gravel, subrounded to su graded, brown, loose, dry. At 1.2 m - damp.	urse grained sa ibangular, trace	nd, fine to e silt, well								▼ //		
5-	SILT and CLAY, trace sand, fine poorly graded, dark grey, soft, m organics (wood fragments). SAND and GRAVEL, fine to coa coarse gravel, subrounded to su graded, brown, loose, damp. Between 5.2 m and 5.5 m - organical subrounded to su graded, brown, loose, damp.	redium plasticit rse grained sa bangular, trace	nd, fine to										— BENTONITE
OA/QC: TC 2021 11 10 Print Date: 203-03-24	Between 7.6 m and 8.2 m - som silty. SILT and CLAY, trace sand, fine subrounded, poorly graded, dark moist. Between 8.2 m and 10.7 m - org	grained, trace grey, soft, me	e gravel, fine, edium plasticity,	NOT	ES	tion b -	huo-		ond elec-	fraction		Naccontact Contact Con	on plantisity
DA/QC: TC 2				and	erentia select	แon be grain s	twee	en silt analy	and clay sis sampl	rractions les.	sinterred	a based (on plasticity

	CNICAT ANIA	TINI	Т		Client oal Lin	nited				Borehol	e No. : GH_BH_FR1B
🔻	SNC+LAVA	LLIN	Teck Coa		ocation ional (Froundw	ater			J	PAGE 2 OF 3
Drillin Boreh	g Contractor JR Drilling g Method Dual Rotary lole Dia. (m) 0.15 Slotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5545627.	. (m) ´	1499 1496	1 10 06 5.257 6.116 ting: 6534	160.33	i1		Project Number: Borehole Logged Date Drilled: Log Typed By:	684431 By: JM 2021 09 08 VL
Depth in Metres	Drilling Legend Sample Interval ▼▼▼▼ Air Rotary	Water/NA ▼ Water Lev ▽ Water Lev ◆ NAPL ◇ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	Recovery	• !	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: GH_MW_FR1B
Dep	Soil Des	scription		Strati	Sam	Samı	Blov	~	1 ₀ 1	10² 10³ 10⁴	
10- 11- 11- 11- 11- 11- 11- 11- 11- 11-		k grey, soft, me	edium plasticity,	NOT and	erentia	ation bei	twee	n sil	t anıysis	d clay fractions samples.	BENTONITE BENTONITE S inferred based on plasticity

	CNIC AT ANIA	TINI	Т	eck C	Client oal Lin	nited			Bore	hole	No. : GH_BH_FR1B
7))	SNC · LAVA		Teck Coa		ocation ional G	roundw	/ater			PA	AGE 3 OF 3
Drilling Boreho	Contractor JR Drilling Method Dual Rotary le Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5545627.	. (m) ´	1495 1496	1 10 06 5.257 6.116 ing: 6534	160.33	1	Project Num Borehole Lo Date Drilled Log Typed E	gged By	684431 /: JM 2021 09 08 VL
Depth in Metres	Drilling Legend Sample Interval ▼▼▼▼ Air Rotary	Water/NA ▼ Water Lev □ Water Lev • NAPL □ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	 Reading withir indicated scale Reading outside indicated scale Soil Vapour (ppm) 	le	Solid PVC Slotted PVC Well Name 1: GH_MW_FR1B
De	Soil Des	cription		Stra	Sam	San	Blc	%	0 ¹ 10 ² 10 ³	10 ⁴	
21-22-23-24-25-	SILT and CLAY, trace sand, fine subrounded, poorly graded, dark moist. (continued) Between 21.6 m and 25.3 m - so grained.	c grey, soft, me	edium plasticity,								GH_MW_FR1B SAND BENTONITE
26-	Bottom of hole at 25.9 m.			иш	∤ * ▼ * ▼ * !				<u> </u>		
27-1 11 10 Print Date: 70 23-03-24			Ī	NOT	ΓES						
WAYAC: IC ZU				Diffe	erentia select	ition be grain s	twee size a	n sili analy	and clay frac sis samples.	tions i	nferred based on plasticity

	CNIC . T ANIA	TINI	Te		Client oal Lir	nited			Boreho	le No. : GH_BH_FR2A
 7))	SNC·LAVA	LLIN	Teck Coa		cation ional (vater			PAGE 1 OF 3
Drilling Boreh	Contractor Mud Bay Drilling Co. Ltd Method Vibratory Sonic ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5545366.0	(m) ´	150 150	1 10 07 4.631 5.466 ting: 6543	322.39	95	Project Number: Borehole Logged Date Drilled: Log Typed By:	
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Lev □ Water Lev • NAPL □ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: GH_MW_FR2A
Del	Soil Des	cription		Strat	Sam	Sam	Blo	% %	0 ¹ 10 ² 10 ³ 10	
2-	SAND and GRAVEL, fine to cocoarse gravel, subangular, somorganics (roots and grass). GRAVELLY SILT, fine to coarse sand, fine grained, brown, loose At 0.9 m - 100 mm thick red silt	e silt, brown, lo e gravel, suban e, damp.	oose, damp,							
7-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1	CLAYEY SAND, fine to medium fine to coarse, subangular, soft, SILTY GRAVEL, fine to coarse sand, fine to medium grained, b	medium plasti gravel, subang rown, medium	city, moist.							BENTONITE
OA/QC: TC 2021 11 10 Print Date; 2023-03-24				NOT Bold Diffe	ded sa erentia	imple dation be	enot twee	es sa en sil	imple analyzed (g and clay fraction sis samples.	grain size distribution). s inferred based on plasticity

	CRIC. T AT/A	TINI	To		Client oal Lin	nited			Boreho	le No. : GH_BH_FR2A
 	SNC · LAVA		Teck Coa		cation ional (Froundy	vater			PAGE 2 OF 3
Drilling Boreh	g Contractor Mud Bay Drilling Co. Ltd g Method Vibratory Sonic ole Dia. (m) 0.15 Slotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5545366.	. (m) ´	1504 1508	1 10 07 1.631 5.466 ting: 6543	322.39	95	Project Number: Borehole Logged Date Drilled: Log Typed By:	
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Lev ▽ Water Lev ◆ NAPL ◇ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: GH_MW_FR2A
Dep	Soil Des	scription		Strati	Samp	Samp	Blov	% Re	10 ¹ 10 ² 10 ³ 10	1
10-	SILTY GRAVEL, fine to coarse sand, fine to medium grained, b (continued)	gravel, subang rown, medium	ular, some dense, damp.							
12-	CLAYEY SAND, fine to medium fine, trace silt, grey, firm, medium SAND and GRAVEL, fine to coa coarse gravel, subrounded, trac	m plasticity, da	mp.							
13-14-15-15-15-15-15-15-15-15-15-15-15-15-15-	Between 12.5 m and 15.2 m - c boulders. Between 16.2 m and 16.8 m - s At 17.7 m - 50 mm thick sand, f Between 18.3 m and 20.1 m - s	ontaining cobb ontaining cobb ome silt.	les and			FR2A-03				BENTONITE
0A/QC: TC 2021 11 10 Print Date: 2023-03-24				NOT Bold Diffe	ded sa erentia	mple d ition be	enot twee	es sa en sil anal	ample analyzed (c t and clay fraction sis samples.	grain size distribution).

	CNIC. T ANIA	TINI	Te		Client oal Lin	nited				Borehol	e No. : GH_BH_FR2A
7/)	SNC·LAVA		Teck Coa		cation ional G	roundw	ater				PAGE 3 OF 3
Drilling Boreho	J Contractor Mud Bay Drilling Co. Ltd. J Method Vibratory Sonic ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5545366.0	(m) ´	1504 1505	10 07 4.631 5.466 ing: 6543	322.39	95		Project Number: Borehole Logged Date Drilled: Log Typed By:	684431 By: AH 2021 09 27 VL
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Lev ▽ Water Lev • NAPL ○ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	ir • F ir	Reading within ndicated scale Reading outside ndicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: GH_MW_FR2A
Del	Soil Des	cription		Strat	Sam Core	Sam	Blo	% R	1 ₀ 1	10 ² 10 ³ 10 ⁴	
20-	SAND and GRAVEL, fine to coa coarse gravel, subrounded, trace (continued) Between 20.1 m and 20.4 m - 30 fine grained, some silt, moderate Between 20.7 m and 21.0 m - 30 fine grained, some silt, moderate	e silt, grey, loo 00 mm layer of e plasticity. 00 mm layer of	se, wet. f clayey sand,			FR2A-05					BENTONITE
22-	Between 23.5 m and 23.8 m - fir	ne to medium (grained sand.			FR2A-06					GH_MW_FR2A
24-	GRAVELLY SILT, fine to coarse sand, fine grained, trace clay, da										BENTONITE
26-	BEDROCK, siltstone, grey, com medium hard, calcite mineralizat										
0A/QC: TC 2021 11 10 Print Date: 2023-03-24	Bottom of hole at 27.1 m.			N. V.V.	, , , 1			'			
3A/QC: TC 2021 1				Diffe	led sa erentia	tion be	twee	en sil	t and	e analyzed (gi d clay fractions samples.	rain size distribution). s inferred based on plasticity

•))	SNC+LAVA	LIN		eck C	Client oal Lin				Boreho	le No. : GH_BH_FR2B PAGE 1 OF 2
Drilling Boreh	g Contractor Mud Bay Drilling Co. Ltd g Method Vibratory Sonic ole Dia. (m) 0.15 Slotted Pipe Dia. (m) 0.05/0.05	l.	Date Monitored Ground Surface El Top of Casing Elev Northing: 5545365	ev. (m)	202 ² 150 ² 1505	1 10 06 1.686 5.483 ing: 654			Project Number: Borehole Logged Date Drilled: Log Typed By:	684431
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Lev ⊽ Water Lev • NAPL ◇ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: GH_MW_FR2B
Δ	Soil Des	scription		Stra	Sar	Sar	ă	્રા	10 ¹ 10 ² 10 ³ 10	
1-	SILT and GRAVEL, fine to coar subrounded, some sand, fine to damp. GRAVELLY SILT, fine to coarse subrounded, trace sand, fine to grey, loose, damp.	coarse graine	d, red, loose,					80		
2	At 2.7 m - 100 mm thick sandy of Between 3.0 m and 4.3 m - som	-			\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\			80		
4	CLAYEY SAND, fine to medium fine to coarse, subangular, soft,									
5— 6— 7—	SILTY GRAVEL, fine to coarse sand, fine to coarse grained, bro	gravel, subang own, medium o	ular, some lense, damp.							BENTONITE
9				NOT Diffe and	erentia	ition be	etwee	en sil	t and clay fraction sis samples.	s inferred based on plasticity

	CNIC AT ANIA	TINI		Teck C	Client oal Lin	nited			Borehol	le No. : GH_BH_FR2B
7))	SNC · LAVA	LIIN	Teck Co		cation ional G	iroundw	vater			PAGE 2 OF 2
Drilling Boreho	Contractor Mud Bay Drilling Co. Ltd. Method Vibratory Sonic ole Dia. (m) 0.15 olotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface I Top of Casing Ele Northing: 554536	ev. (m) ´	1504 1505	10 06 1.686 5.483 ing: 6543	323.27	7	Project Number: Borehole Logged Date Drilled: Log Typed By:	684431 By: AH 2021 09 27 VL
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Lev □ Water Lev • NAPL ○ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	indicated scale	Solid PVC Slotted PVC Well Name 1: GH_MW_FR2B
De	Soil Des	cription		Stra	Sarr	San	Blo	۲ % 10	¹ 10 ² 10 ³ 10 ⁴	
10-	SILTY GRAVEL, fine to coarse gand, fine to coarse grained, bro (continued)	gravel, subang own, medium c	ular, some lense, damp.							
11-	CLAYEY SAND, fine to medium fine to coarse, subangular, trace moderate plasticity, moist.	grained sand, silt, grey, med	, some gravel, dium dense,							BENTONITE
12-	SAND and GRAVEL, fine to coacoarse gravel, subrounded, trace	rse grained sa e silt, grey, loo	and, fine to se, wet.							
13										GH_MW_FR2B
14-										
15					$\stackrel{\checkmark}{\searrow}$:		BENTONITE
	Bottom of hole at 15.2 m.			_						
16-										
17-										
18-										
24										
50-5202 - 19-										
rint Date										
20_										
0A/QC: TC 2021 11 10 Print Date:2023-03-24 00 00 00 00 00 00 00 00 00 00 00 00 00				NOT Diffe and	erentia	tion be grain s	twee size a	n silt analys	and clay fractions is samples.	s inferred based on plasticity

7))	SNC+LAVA	TIN	Т	eck C	Client oal Lin	nited			Borehole No. : GH_BH_FR3A
Y //	SINC LAVA		Teck Coa		cation ional G	roundv	vater		PAGE 1 OF 5
Drilling Boreho	y Contractor JR Drilling y Method Dual Rotary ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5545568.	. (m)	1487 1488	l 11 21 7.555 3.372 ing: 6530	085.61	4	Project Number: 684431 Borehole Logged By: JM Date Drilled: 2021 09 14 Log Typed By: VL
Depth in Metres	Drilling Legend Sample Interval ▼▼▼ Air Rotary	Water/NA ▼ Water Lev □ Water Lev ♠ NAPL ○ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm) Soil Vapour (ppm) Soil Vapour (ppm) Soil Vapour (ppm)
De	Soil Des	cription		Stra	San	San	Blo	% R	10 ¹ 10 ² 10 ³ 10 ¹
1	SANDY CLAY, fine to coarse grayel, fine to coarse, subrounde plasticity, damp. SAND and GRAVEL, fine to coarse gravel, subrounded to sul clay, brown, loose, dry. SILT and CLAY, soft.	ed, dark browr rse grained sa	n, soft, low and, fine to						
6- 7- 8-	From 4.6 m to 16.8 m - limited re	tturns.							BENTONITE
				NOT Diffe and	T ES erentia select	ition be	twee	n sil analy	It and clay fractions inferred based on plasticity ysis samples.

Soil Description SILT and CLAY, soft. (continued) 10 112 113 114 114 114 115 116 Soil Description Soil Descri	FR3A	e No. : GH_BH_FR3.	Borehole I				nited	Client oal Lin	eck C	TRI	CAT ANIA TINI	CNICA	
Drilling Method Dual Rotary Borehole Logged By: Dual Rotary Social Description Drilling Legend Sample Interval Surface Elev. (m) Top of Casing Elev. (m) Northing: 5545568.361 Drilling Legend Sample Interval Surface Elev. (m) Top of Casing Elev. (m) Northing: 5545568.361 Drilling Legend Sample Interval Surface Elev. (m) Top of Casing Elev. (m) Northing: 5545568.361 Drilling Legend Sample Interval Surface Elev. (m) Top of Casing Elev. (m) Top of Casing Elev. (m) Northing: 5545568.361 Drilling Legend Sample Interval Surface Elev. (m) Top of Casing El		PAGE 2 OF 5	PA			vater	iroundv			Teck Coa	C·LAVALIN	SINC	
Sample Interval Water/NAPL Water Level 2 NAPL NAPL NAPL NAPL NAPL NAPL NAPL NAP		By: JM 2021 09 14	Borehole Logged By: Date Drilled:		14	085.61	7.555 3.372	1487 1488	. (m̀) ´	Ground Surface Ele Top of Casing Elev	Oual Rotary 0.15	Method Dual Ro	Drilling Boreho
Soil Description	 N_FR3A		Reading outside indicated scale Soil Vapour	•	ecovery	w Count	ple Number	iple Interval e Run	tigraphy Plot	✓ Water Level 1 ✓ Water Level 2 ▶ NAPL	ample Interval ir Rotary	Sample I	pth in Metres
SILT and CLAY, soit. (continued) 112 13- 14- 15- SILT and CLAY, trace sand, fine grained, trace gravel, fine,			1 10 ² 10 ³ 10 ⁴	1 ₀ 1	% R	Blc	San	San	Stra	ption	Soil Description		De
NOTES Differentiation between silt and clay fractions inferred based on pand select grain size analysis samples.	n plasticity			lt a	en si	twee	tion be	ES reentias selections	NO ^o Diffi	uined, trace gravel, fine, st.	CLAY, trace sand, fine grained, trac	SILT and CLAY, t	11- 12- 13- 15- 16-

	CNIC . T ANIA	TINI	Teck Co			nited			Borehole No. : GH_BH_FR3A		
 7/)	SNC·LAVALIN			Location Teck Coal Regional Groundwater						PAGE 3 OF 5	
Drilling Boreho	Drilling Method Dual Rotary Gro Borehole Dia. (m) 0.15 Top			Date Monitored 2021 11 21 Ground Surface Elev. (m) 1487.555 Top of Casing Elev. (m) 1488.372 Northing: 5545568.361 Easting: 653085.614					Project Number: Borehole Logged Date Drilled: Log Typed By:	684431 I By: JM 2021 09 14 VL	
Depth in Metres	Drilling Legend Sample Interval ▼▼▼▼ Air Rotary	Water/NA ▼ Water Lev ∇ Water Lev • NAPL ○ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: GH_MW_FR3A	
Dep	Soil Des	Soil Description		Stratig	Samp	Samp	Blow	% Re	0 ¹ 10 ² 10 ³ 10	1	
22-	SILT and CLAY, trace sand, fine dark brown, soft, high plasticity, At 20.4 m - some gravel, coarse At 21.3 m - wet.	moist. (continu	e gravel, fine, ued)							GH_MW_FR3A	
25 - 25 - 25 - 25 - 25 - 25 - 25 - 25 -	SAND and GRAVEL, fine to coaccarse gravel, subangular to sul loose, wet. Between 25.8 m and 28.3 m - s moist, possible weathered muds moist.	some clay, dark stone. d, some sand, ft, moist.	e silt, grey, c grey, compact, fine grained,					-		BENTONITE	
3A/QC: TC 2021				NOT Diffe and	erentia	tion be grain s	twee	en sil analy	t and clay fraction sis samples.	s inferred based on plasticity	

Teck Coal Regional Groundwater		CNICAT ANATINI		eck C	Client oal Lin	nited			Boreho	Borehole No. : GH_BH_FR3A		
Drilling Method Dual Rotary Specific Diag (m) 0.50 Specific Diag (m) 0.800.50 Northing Solidon Play Bu, (m) 0.800.50 Northing Solidon P	7/)	SNC • LAVALIN Teck Coa					Froundy	vater			PAGE 4 OF 5	
Water/Levels Water Level 1 Water Level 2 NAPL Water Level 2 NAPL Soil Description Soil Description Soil Description Soil Description Soil Description Soil Description At 33.2 m - dry. Between 34.4 m and 35.1 m - some clay on siltstone cuttings. Between 34.4 m and 35.1 m - some clay on siltstone cuttings.	Drilling Boreho	Drilling Method Dual Rotary Ground Surface Ele Borehole Dia. (m) 0.15 Top of Casing Elev.			ev. (m) 1487.555 . (m) 1488.372					Borehole Logged Date Drilled: Log Typed By:	I By: JM 2021 09 14	
Soil Description	ppth in Metres	Sample Interval	▼ Water Lev ▼ Water Lev • NAPL	vel 1	tigraphy Plot	որle Interval e Run	nple Number	w Count	Recovery	 Reading outside indicated scale Soil Vapour 	Slotted PVC	
Between 34.4 m and 35.1 m - some clay on silistone cuttings. Between 34.4 m and 35.1 m - some clay on silistone cuttings. BEDROCK, silistone, dark grey, hard.	De	Soil Des	cription		San	San	San	В	% R	10 ¹ 10 ² 10 ³ 10		
Between 34.4 m and 35.1 m - some clay on siltstone cuttings. BEDROCK, siltstone, dark grey, hard. BEDROCK, siltstone, dark grey, hard.	32-	grained, hard, moist. (continued)	d, heavily fracti	ured, fine	****							
BEDROCK, siltstone, dark grey, hard.		Between 34.4 m and 35.1 m - so	ome clay on sil	Itstone cuttings.	* -							
NOTES Differentiation between silt and clay fractions inferred based on plasticity and select grain size analysis samples.	37-33-33-33-33-33-33-33-33-33-33-33-33-3		hard.		NOT	FES es el action and the second and	ition be	twee	en sil	t and clay fraction		

	CNIC . T ANIA	TINI	Teck C	Client oal Lin	nited			Borehol	e No. : GH_BH_FR3A	
7))	SNC+LAVALIN Teck Co			ocation ional G	roundw	ater		PAGE 5 OF 5		
Drilling Boreho	Contractor JR Drilling Method Dual Rotary ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05	Grour Top o	Monitored nd Surface Elev. (m) f Casing Elev. (m) ing: 5545568.361	1487 1488	11 21 7.555 3.372 ing: 6530	85.61	4	Project Number: Borehole Logged Date Drilled: Log Typed By:	684431 By: JM 2021 09 14 VL	
Depth in Metres	Drilling Legend Sample Interval TTT Air Rotary Soil Des	Water/NAPL Le ▼ Water Level 1 ▽ Water Level 2 ◆ NAPL ◇ NAPL	sleave	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: GH_MW_FR3A	
40-	BEDROCK, siltstone, dark grey, Between 40.1 m and 40.5 m - da trace coal. Bottom of hole at 41.2 m.	hard. (continued)		V V V V V V V V V V V V V V V V V V V			*\10	1 102 103 104	BENTONITE	
42 44 44 45 45 45 45 45 45 45 45 45 45 45			NO	TES						
			Diff	erentia	tion bet grain s	wee ize a	n silt inalys	and clay fractions is samples.	s inferred based on plasticity	

SNC·LAVA		Client Teck Coal Limite Location		Borehole No. : GH_BH_FR3B
Drilling Contractor JR Drilling Drilling Method Dual Rotary Borehole Dia. (m) 0.15 Pipe/Slotted Pipe Dia. (m) 0.05/0.05	Date Monitore Ground Surfac Top of Casing Northing: 5545	te Elev. (m) 1487.546 Elev. (m) 1488.37	21 3	PAGE 1 OF 1 Project Number: 684431 Borehole Logged By: JM Date Drilled: 2021 09 16 Log Typed By: VL
Drilling Legend Sample Interval V V V Air Rotary Li Li Li Li Li Li Li Li Li L	Water/NAPL Levels ▼ Water Level 1 ∇ Water Level 2 • NAPL ○ NAPL	Stratigraphy Plot Sample Interval Core Run	Blow Count % Recovery	indicated scale Reading outside indicated scale Soil Vapour (ppm) Solid PVC Slotted PVC Well Name 1: GH_MW_FR3B
Soil Des SANDY CLAY, fine to coarse gr gravel, fine to coarse, subrounded plasticity, damp. SAND and GRAVEL, fine to coarse gravel, subrounded to ar brown, loose, dry. 2- At 3.0 m - damp.	ained sand, some silt, some ed, dark brown, soft, low			■ 10 ² 10 ³ 10 ⁰ ■ BENTONITE GH_MW_FR3B
SILT and CLAY, soft. 5 6 Bottom of hole at 6.1 m.				BENTONITE
9-		NOTES		and clay fractions inferred based on plasticity

	SNC+LAVA	т	eck C	Client oal Lin	nited			Borehole No. : GH_BH_FR4A			
Y))	SINCYLAVA	Teck Coa		ional C	Froundy	vater		PAGE 1 OF 4			
Drilling Boreho	y Contractor JR Drilling y Method Dual Rotary ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5545820.	. (m) ´	1492 1493	1 11 21 2.543 3.240 ting: 653	169.21	16	Project Number: 684431 Borehole Logged By: JM Date Drilled: 2021 09 17 Log Typed By: VL		
Depth in Metres	Drilling Legend Sample Interval ▼▼▼▼ Air Rotary	Water/NA ▼ Water Lev □ Water Lev • NAPL □ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm) Soil Vapour Soil Vapour (ppm)		
ă	Soil Des	cription		Stra	Sar	Sar	В	Ж	10 ¹ 10 ² 10 ³ 10 ⁴		
0-	SILT and CLAY, some sand, find dark brown, firm, low plasticity, o	e grained, som dry, contains ro	ne gravel, fine, pots to 0.3 m.								
	SANDY CLAY, fine grained sand dark brown, soft, medium plastic	ome gravel, fine,									
2-	At 2.1 m - moist.										
3-	SILT and CLAY, some gravel, fil From 2.9 m to 18.9 m - limited re							Y			
5-	At 4.3 m - wet.							BENTONITE			
7-											
8 9 9 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1								-			
9 110			NOT Diffe and	TES erentia select	ation be t grain s	twee	en sil anal	t and clay fractions inferred based on plasti	icity		

	CNIC . T ANIA	TINI	Te	ck C	Client oal Lim	ited			Boreho	ole No. : GH_BH_FR4A
7))	SNC · LAVA		Teck Coa		cation ional G	roundw	ater/			PAGE 2 OF 4
Drilling Boreho	Contractor JR Drilling Method Dual Rotary Ile Dia. (m) 0.15 otted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5545820.8	(m)	1492 1493		169.21		Project Number: Borehole Logger Date Drilled: Log Typed By:	: 684431 d By: JM 2021 09 17 VL
Depth in Metres	Drilling Legend Sample Interval ▼▼▼▼ Air Rotary	▼ Water Le		Stratigraphy Plot	Sample Interval Core Run	Sample Number	ount		 Reading within indicated scale Reading outside indicated scale Soil Vapour 	Solid PVC Slotted PVC Well Name 1: GH_MW_FR4A
Depth	Soil Des			Stratigra	Sample Core Ru	Sample	Blow Count	% Recovery	(ppm)	
10-		•	(continued)					10	D ¹ 10 ² 10 ³ 10	1 1
11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	BEDROCK, siltstone, weathered			NOT	ES					GH_MW_FR4A —— BENTONITE
JAVUC: 1C.2				and	select	grain s	iwee size a	analys	and clay fraction sis samples.	s inferred based on plasticity

	CNIC . T ANIA	TINT	Т	eck C	Client oal Lin	nited			Boreho	le No. : GH_BH_FR4A
7//	SNC+LAVA		Teck Coa		cation ional G	iroundv	vater			PAGE 3 OF 4
Drilling Boreho	Contractor JR Drilling Method Dual Rotary Die Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5545820.	. (m) ´	1492 1493	11 21 2.543 3.240 ing: 653	169.21	16	Project Number: Borehole Logged Date Drilled: Log Typed By:	684431 d By: JM 2021 09 17 VL
Depth in Metres	Drilling Legend Sample Interval ▼▼▼▼ Air Rotary	Water/NA ▼ Water Lev ✓ Water Lev ◆ NAPL ◇ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: GH_MW_FR4A
De	Soil Des	scription		Strat	Sam	Sam	Bo	% R	10 ¹ 10 ² 10 ³ 10	
20-00/00; 1C 202111 10 Jaie: 203-23-23-23-23-23-23-23-23-23-23-23-23-23	BEDROCK, siltstone, weatherer (continued) Between 28.0 m and 28.3 m - c fine. At 28.7 m - wet.	d, fine grained,		**************************************						BENTONITE
QA/QC: TC 2021				NOT Diffe and	erentia	tion be grain s	twee	en sil anal	t and clay fraction sis samples.	s inferred based on plasticity

	CRIC. I ANIA	TINI								Borehol	e No. : GH_BH_FR4A
7)	SNC+LAVA		Teck Coa	Teck Coal Regional Groundwater Date Monitored 2021 11 21							PAGE 4 OF 4
Drilling Boreh	g Contractor JR Drilling I Method Dual Rotary ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5545820.	. (m) ´	1492 1493	1 11 21 2.543 3.240 ting: 6531	69.21	6		Project Number: Borehole Logged Date Drilled: Log Typed By:	684431 By: JM 2021 09 17 VL
Depth in Metres	Drilling Legend Sample Interval TYYY Air Rotary Soil Des	▼ Water Lev ▼ Water Lev • NAPL • NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	•	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: GH_MW_FR4A
31-33-33-33-	BEDROCK, siltstone, weathered (continued) At 30.5 m - calcification present.		dark grey, dry.	*****							BENTONITE
35-38-38-38-38-38-38-38-38-38-38-38-38-38-	Bottom of hole at 34.8 m.										
0A00C: 1C 2021 11 10 Print Dale: 202-24				NO TO Difference	FES erentia select	ution bel	wee	n silli naly	t ar	nd clay fractions samples.	s inferred based on plasticity

~!!	SNC+LAVA	TINI	1	eck C	Client oal Lin	nited			Borehole No. : GH_BH_FR4B			
7 //	SINCYLAVA		Teck Co		ocation ional G	iroundv	vater				PAGE 1 OF 1	
Drilling Boreho	Contractor JR Drilling Method Dual Rotary ble Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface El Top of Casing Elev Northing: 5545819	/. (m̀) ´	1492 1493		171.34	14		Project Number: Borehole Logged Date Drilled: Log Typed By:	684431 By: AH 2021 09 17 VL	
Depth in Metres	Drilling Legend Sample Interval ▼▼▼ Air Rotary Soil Des	▼ Water Let ▼ Water Let ◆ NAPL ◇ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	•	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm) 10² 10³ 10⁴	Solid PVC Slotted PVC Well Name 1: GH_MW_FR4B	
1-	SILT and CLAY, some sand, fine coarse, subrounded, dark brown SILTY SAND, fine grained sand, to coarse, dark brown, firm, dam	, firm, damp.										
3	Between 2.4 m and 3.4 m - soft, wet. GRAVELLY CLAY, some silt, trace sand, fine brown, loose, low plasticity, wet. SANDY CLAY, fine grained sand, some silt, soft, medium plasticity, wet.		grained, dark								BENTONITE	
7	SANDY CLAY, fine grained sand soft, medium plasticity, wet.	1, some silt, d	ark brown, very								GH_MW_FR4B	
10-	Bottom of hole at 9.1 m.			<u> </u>	1 ~ . ~ . ~				:	_; ; ;	<u> ° ° ° ° ° ° ° ° ° ° ° ° ° ° ° °</u>	
10-				NOT Diffe and	TES erentia select	tion be	twee	en sil analy	t an ysis	d clay fractions samples.	s inferred based on plasticity	

*))	SNC+LAVA	TIN	т	Client coal Lir					Borehol	e No. :	GH_BH_FR5A	
			Teck Co		ocation gional (water				PAGE [*]	1 OF 6
Drilling Boreho	Contractor Mud Bay Drilling Co. Ltd. Method Vibratory Sonic ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface El Top of Casing Elev Northing: 5545476	٬. (m̀) ´	148 148	1 10 06 7.844 8.769 ting: 653	287.7	22		Project Number: Borehole Logged Date Drilled: Log Typed By:	By:	684431 TC 2021 09 21 VL
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NAI ▼ Water Lev □ Water Lev • NAPL □ NAPL	el 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	w Count	% Recovery		Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	sı	olid PVC lotted PVC ame 1: GH_MW_FR5A
De	Soil Des	cription		Stra	San	San	Blow	% R	1 ₀ 1	10 ² 10 ³ 10 ⁴		П
2	SILTY SAND, fine grained sand. SAND, fine grained, trace grave GRAVELLY SAND, fine to coars subrounded gravel, some silt, we to 80 mm diameter, brown, loose SILT and CLAY, grey, very soft,	I, subrounded, se grained sand ell graded, con e, wet.	grey, loose, dry. d, rounded to taining cobbles					100			<pre>F####################################</pre>	# # # # # # # # # # # # # # # # # # #
10				NO Bold	TES ded sa erentia selec	ample d ation be t grain	lenot etwee size	es s en si anal	amp It an	ole analyzed (g nd clay fractions samples.	######################################	# #

	A CRIC. I AND	TINI	Client Teck Coal Limited Location							ole No.	: GH_BH_FR5A
7) SNC+LAVA	LLIN	Teck Coal			Froundw	ater			PAGE	E 2 OF 6
Drilli Bore	ng Contractor Mud Bay Drilling Co. Ltd ng Method Vibratory Sonic hole Dia. (m) 0.15 Slotted Pipe Dia. (m) 0.05/0.05	l.	Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5545476.8	(m) '	148 148	1 10 06 7.844 3.769 ting: 6532	87.72	22	Project Numb Borehole Log Date Drilled: Log Typed By	ged By:	684431 TC 2021 09 21 VL
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Lev ✓ Water Lev ◆ NAPL △ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	overy	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)		Solid PVC Slotted PVC Name 1: GH_MW_FR5A
Dept	Soil Des	scription		Stratig	Sample Core R	Sample	Blow	% Recovery	(ppiii)	104	
- 10-									10 ¹ 10 ² 10 ³	101	-+
11-	SANDY CLAY, fine to coarse gi to coarse, rounded to subround	rained sand, so	ome gravel, fine			FR5A-05		100			#
OA/OC: TC 20211110 Print Date:2023-03-24	CLAYEY SAND, fine to coarse to coarse, subrounded to subar	se gravel, roun- rained, containi stiff, damp.	containing y, loose, moist. ded to ing cobbles to			FR5A-06		70		# # # # # # # # # # # # # # # # # # # #	# # # # # # # # # # # # # # # # # # #
QA/QC: TC 202				Diffe	led sa erentia	ition bet	wee	n si	ample analyzed It and clay fracti ysis samples.	(grain si ons infer	ze distribution). red based on plasticity

	CNIC . T AND	TINT	To	Client oal Li	nited	Boreho	le No. : (GH_BH_FR5A			
V)	SNC · LAVA	ALIN	Teck Coa		ocation jional (<i>r</i> ater	•		PAGE 3	OF 6
Drilling Boreho	Contractor Mud Bay Drilling Co. Ltd Method Vibratory Sonic ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05	l.	Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5545476.	. (m) ´	148 148	1 10 06 7.844 8.769 ting: 6532	287.7	22	Project Number: Borehole Logged Date Drilled: Log Typed By:	d By: T	84431 C 021 09 21 ⁽ L
letres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Lev ▼ Water Lev		Plot	ıval	nber	Į,		Reading within indicated scale Reading outside indicated scale	I ∐	lid PVC
Depth in Metres		NAPL NAPL NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Soil Vapour (ppm)	Well Nar	me 1: GH_MW_FR5A
	Soil Des	scription		₺	ဟိပိ	ű		%	10 ¹ 10 ² 10 ³ 10	1	
21-	CLAYEY SAND, fine to coarse to coarse, subrounded to subar medium dense, damp. (continual states of the coarse, subangular, some gravel, from the coarse subangular, some silt, trace sar containing cobbles to 110 mm of SANDY SILT, fine to coarse gravel, fine to coarse, subround	ine to coarse, r se gravel, subrad, fine to coars id, fine to coars idiameter, grey, ained sand, trad led to subangu	ounded to se grained, stiff, damp. ce clay, trace			FR5A-08		100			# # # # # # # # # # # # # # # # # # #
24	SILT and CLAY, some sand, so rounded, grey, soft, medium plate of the sand, coarse of the sand sand sand sand sand sand sand sand	grained sand, sigular, containing	gravel, coarse.					80			# # # # # # # # # # # # # # # # # # #
0A/QC: TC 2021 11 10 Print Date:2023-05-24	GRAVELLY CLAY, subangular fine to coarse grained, some sil SANDY SILT, some gravel, fine clay, containing one cobble to 1 stiff, low plasticity, dry. GRAVELLY CLAY, fine to coars sand, fine to coarse grained, co	t, grey, stiff, da e to coarse, sub 50 mm diamet se gravel, subro	pangular, trace er, brown, very ounded, some							# # # # # # # # # # # # # # # # # # #	# # # # # # # # # # # # # # # # # # #
QA/QC: TC 2021 11				Diffe	ded sa erentia	ation be	twe	en si	ample analyzed (g It and clay fraction ysis samples.	rain size s inferred	distribution). I based on plasticity

	CNIC . T ANIA	TINI	Т	Client oal Lin	nited	Boreho	le No. : (GH_BH_F	R5A			
 	SNC·LAVA	LLIN	Teck Coa		cation ional (Froundw	ater			PAGE 4	OF 6	
Drilling Boreh	g Contractor Mud Bay Drilling Co. Ltd y Method Vibratory Sonic ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05	l.	Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5545476.	′. (m̀) ´	148 148	1 10 06 7.844 3.769 ting: 6532	287.72	22	Project Number: Borehole Logged Date Drilled: Log Typed By:	d By: T 2	684431 FC 2021 09 21 /L	
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Lev ⊽ Water Lev • NAPL ◇ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Slo	olid PVC otted PVC me 1: GH_MW	
De	Soil Des	scription		Stra	San	San	Blo	% R	10 ¹ 10 ² 10 ³ 10	14		
30 - 30 - 30 - 31 - 31 - 31 - 32 - 33 - 33 - 33 - 33	diameter, brown, stiff, damp. SANDY CLAY, fine to coarse git to coarse, subrounded, containin diameter, brown, loose, moist. CLAY and GRAVEL, fine to coarse git, containing cobt soft, medium plasticity, damp. At 32.3 m - dry. SANDY CLAY, fine to coarse gisubrounded to subangular, som plasticity, moist to wet. Between 33.2 m and 33.5 m - cidiameter. GRAVELLY CLAY, fine to coarse subangular, some silt, some sail brown, firm, medium plasticity, to subrounded. At 35.7 m - containing cobbles to subrounded. At 36.4 m - wet. CLAYEY SAND, fine to coarse to coarse, rounded to subrounded mm diameter, rounded, dark brown, very loose, wet. At 39.3 m - increasing gravel, coarse gravel, on and 40.8 m - coarse	rained sand, so the silt, brown, vontaining cobb see gravel, subround, fine to coarmoist. To 110 mm diarrained sand, seed, containing cown, loose, we carse grained sand, some commontaining cobb	orounded, some diameter, grey, ome gravel, fine, ery soft, high les to 150 mm ounded to se grained, dark oneter, some gravel, fine cobbles to 100 t.			FR5A-13		80				ROUT
40-	diameter, rounded to subrounde		, ,		<u> </u>				<u> </u>	# #	# #	
QA/QC: TC 2021				Diffe	led sa erentia	ition be	twee	en si	ample analyzed (g t and clay fraction ysis samples.	rain size s inferred	distributior d based on	n). plasticity

	CNIC . T ANIA	TINI	т		Client oal Li r	nited			Borehole No. : GH_BH_FR5A			
7//	SNC · LAVA	LLIN	Teck Coa		cation ional (/ater				PAGE 5 OF 6	
Drilling Boreho	Contractor Mud Bay Drilling Co. Ltd Method Vibratory Sonic ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5545476.	. (m) ´	148 148	1 10 06 7.844 8.769 ting: 6532	287.72	22		Project Number: Borehole Logged Date Drilled: Log Typed By:	684431 By: TC 2021 09 21 VL	
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Lev ✓ Water Lev • NAPL ◇ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	• F	Reading within ndicated scale Reading outside ndicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: GH_MW_FR5	A
De	Soil Des	scription		Stra	San	Sam	Blo	% R	1 ₀ 1	10 ² 10 ³ 10 ⁴		
41-	SAND and GRAVEL, fine to coccoarse gravel, rounded to subrodark brown, very loose, wet. (cocoarse gravel). Between 40.8 m and 43.0 m - coccoarse gravel, rounded to subrounded	ounded, some ontinued) ontaining cobb	clay, well graded,								# # # # # # # # # # # # # # # # # # #	
44-	At 42.7 m - orange staining. SILTY GRAVEL, fine to coarse subangular, some sand, fine to containing cobbles to 120 mm c subangular, dark brown, loose,	coarse grained liameter, subro	l, some clay,					50			BENTONIT	TE.
46-	At 45.4 m - pocket of sand, fine Between 45.7 m and 46.0 m - c diameter, orange staining. At 46.9 m - containing one cobb	ontaining cobb						50				
rint Date:2023-03-24	At 47.9 m - pocket of sand, fine SANDY GRAVEL, fine to coars coarse grained sand, some silt, At 48.8 m - containing one cobb. SILTY SAND, fine to coarse gra subrounded, dark brown, very lo Between 49.1 m and 49.7 m - s 100 mm diameter.	e gravel, subro loose, wet, ora ble. sined sand, sor cose, wet. ome clay, cont	nnge staining. ne gravel, fine, aining cobbles to			FR5A-16		100			GH_MW_FI	R5A
OA/QC: TC 2021 11 10 Print Date:2023-03-24 04	SILT and CLAY, some sand, fin	e to coarse gra	ained, some	Diffe	ded sa erentia	ation be	twee	n sil	t and	le analyzed (gi d clay fractions samples.	rain size distribution). s inferred based on plas	sticity

	ONIC T ANIA	TINI	Client Teck Coal Limited Location Teck Coal Regional Groundwater							Boreho	le No. : GH_BH_FR5A
*))	SNC · LAVA	LIN	Teck Coa			Groundw	vater				PAGE 6 OF 6
Drilling Boreh	g Contractor Mud Bay Drilling Co. Ltd. g Method Vibratory Sonic ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5545476.8	. (m)	1487 1488	1 10 06 7.844 3.769 ing: 6532	287.72	22		Project Number: Borehole Logged Date Drilled: Log Typed By:	684431 By: TC 2021 09 21 VL
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Lev □ Water Lev • NAPL ○ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	•	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: GH_MW_FR5A
De	Soil Des	cription		Stra	San	San	Blo	% R	1 ₀ 1	10 ² 10 ³ 10	
50-	gravel, containing cobbles to 90 plasticity. BEDROCK, siltstone, weathered BEDROCK, mudstone, weather Bottom of hole at 50.9 m.	d, grey, dry. (co	ontinued)	* ; * ;							
53-	Solidin of Hole at 50.5 III.										
2040C: 1C 2021 11 10 Print Date: 2023-05-24				NOT	FES	mple de	onati	20.50	am	nle analyzed (d	rain siza distribution)
JA/40: 102				Bold Diffe	ded sa erentia	mple de ition be grain s	enot twee size	es s en si anal	am It ai ysis	ple analyzed (g nd clay fraction s samples.	rain size distribution). s inferred based on plasticity

*))	SNC+LAVA	Ted	ck Co	ient al Lim	nited			Borehole No. : GH_BH_FR5B			
	OI (C EZIVI		Teck Coal			roundw	ater			PAGE 1 OF 3	
Drilling Boreho	Contractor Mud Bay Drilling Co. Ltd Method Vibratory Sonic ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05	Gr To	te Monitored ound Surface Elev p of Casing Elev. (orthing: 5545478.05	m)	1487 1488		286.67	'5	Project Number: Borehole Logged Date Drilled: Log Typed By:		
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NAPL ▼ Water Level 1 ▽ Water Level 2 • NAPL ◇ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: GH_MW_FR5B	
De	Soil Des	scription		Stra	San	San	Blo	~	0 ¹ 10 ² 10 ³ 10	21 🗆	
- 0-	SILTY SAND, fine grained sand	l, some clay, brown	n, soft, moist.					60			
2-	SAND, fine grained, trace grave GRAVELLY SAND, fine to coar subrounded gravel, some silt, w to 80 mm diameter, brown, loos	ounded to							¥ // //		
3-	SILT and CLAY, grey, very soft,	high plasticity, mo	oist.					100			
4-		ILT and CLAY, grey, very soft, high plasticity, m									
5-										BENTONITE	
7-								100			
8-											
9-	At 9.1 m - soft.							100			
9-			NOTE Differ and s	rentia	tion be grain s	twee	n sil analy	t and clay fraction sis samples.	s inferred based on plasticity		

	CRIC. I ANIA	TINI	т		Client oal Lin	nited			Borehol	e No. : GH_BH_FR5B
7))	SNC+LAVA	LIN	Teck Coa		ocation jional G	roundv	vater			PAGE 2 OF 3
Drilling Boreh	g Contractor Mud Bay Drilling Co. Ltd. g Method Vibratory Sonic ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5545478.0	. (m) ´	1487 1488	1 10 06 7.888 3.672 ing: 6532	286.67	' 5	Project Number: Borehole Logged Date Drilled: Log Typed By:	684431 By: TC 2021 09 21 VL
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Lev ▽ Water Lev ◆ NAPL ◇ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count		Peading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: GH_MW_FR5B
	Soil Desc	cription		Stra	Sar	Sar	ă	% 10	¹ 10 ² 10 ³ 10 ⁴	
11-	SILT and CLAY, grey, very soft, h	igh plasticity	moist.					100		BENTONITE
16-	SANDY CLAY, fine to coarse gra to coarse, subrounded to subang 120 mm diameter, soft, wet.	ined sand, sc ular, containii	ome gravel, fine ng cobbles to					70		GH_MW_FR5B
18-	SAND and GRAVEL, fine to coar coarse gravel, some silt, trace clamm diameter, grey, loose, wet.	se grained sa ay, containing	and, fine to cobbles to 90					50		SAND
19-	SILT and CLAY, grey, very stiff, n	nedium plasti	city, damp.							
20-	SAND and GRAVEL, fine to coar coarse gravel, rounded to subrou cobbles to 130 mm diameter.	se grained sa nded, some s	and, fine to silt, containing							BENTONITE
				NO ⁻ Diffe	erentia	ition be	etwee	n silt a	and clay fractions is samples.	s inferred based on plasticity

	CNIC . T ANIA	TINI		Teck C	Client oal Lin	nited				Borehol	e No. : GH_BH_FR5B
*/)	SNC · LAVA		Teck C		cation ional C	Groundy	vater				PAGE 3 OF 3
Drilling Boreho	Contractor Mud Bay Drilling Co. Ltd. Method Vibratory Sonic ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface I Top of Casing El Northing: 554547	ev. (m)	1487 1488	1 10 06 7.888 3.672 ting: 6532	286.67	75		Project Number: Borehole Logged Date Drilled: Log Typed By:	684431 By: TC 2021 09 21 VL
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Lev □ Water Lev • NAPL □ NAPL		 Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	•	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: GH_MW_FR5B
De	Soil Des	cription		Stra	Sam	San	Blo	% R	1 ₀ 1	10 ² 10 ³ 10 ⁴	
20-	SAND and GRAVEL, fine to coa coarse gravel, rounded to subro cobbles to 130 mm diameter. (c	unded, some s ontinued)	silt, containing								BENTONITE
	SILT, some clay, grey, very stiff,	low plasticity,	damp.								
	Bottom of hole at 21.5 m.										
22-											
23-											
24-											
25											
26-											
27-											
28-											
20											
3-03-24											
ate:2023											
Print C											
2 1 1 2 1 30 1 30 1				NOT	ΓES						
0A/QC: TC 2021 11 10 Print Date: 2023-03-24				□ Diffe	erentia	tion be t grain s	twee	en sil analy	t ar ⁄sis	nd clay fractions samples.	s inferred based on plasticity
ğ											

~))	SNC·LAVA	TIN	т	eck C	Client oal Lir				Boreh	ole No. : GH_BH_FR6
\ * //	SINCILAVA		Teck Coa		ocation ional (vater			PAGE 1 OF 1
Drilling Boreho	Contractor Mud Bay Drilling Co. Ltd Method Vibratory Sonic ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05	l.	Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5545300.	′. (m̀) ´	149 149	1 10 05 0.767 1.537 ting: 653	861.0	40	Project Number Borehole Logge Date Drilled: Log Typed By:	
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Le ▽ Water Le ◆ NAPL ◇ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: GH_MW_FR6
De	Soil Des	scription		Strat	Sam	Sam	Bo	% R	10 ¹ 10 ² 10 ³ 1	 o1
1-	SILT, some gravel, fine to coars low plasticity, damp, organics (r SAND and GRAVEL, fine to cocoarse gravel, subrounded, son plasticity, massive, damp. Between 0.6 m and 2.7 m - organical coarse.	arse grained sane silt, brown,	and, fine to loose, low					80		
2-	At 2.1 m - wet.							50		BENTONITE
4-	Between 3.7 m and 4.0 m - san	d, well graded,	loose, wet.							GH_MW_FR6
5-	CLAYEY SILT, grey, stiff, high p	plasticty majet				FR6-02		120		SAND
7-	OBVIET OILT, groy, Juli, hight	nastoty, moist								BENTONITE
8-	Bottom of hole at 8.8 m.					FR6-03				
9-										
9-10-				NOT Bold Diffe and	ded sa erentia	imple d ation be t grain s	enot twee	es sa en sil anal	ample analyzed (t and clay fractior sis samples.	grain size distribution). s inferred based on plasticity

	CRIC. T ANIA	TINI	Te		Client Coal Lir	nited			Boreho	ole No. : GH_BH_FR7
 7 //	SNC+LAVA	LII	Teck Coa		ocation jional (Groundy	<i>r</i> ater			PAGE 1 OF 6
Drilling Boreho	g Contractor Mud Bay Drilling Co. Ltd. g Method Vibratory Sonic ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5545431.	. (m̀) ´	149 149	1 10 06 1.862 2.519 ting: 6537	753.23	38	Project Number: Borehole Logged Date Drilled: Log Typed By:	
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Lev ✓ Water Lev ◆ NAPL ◇ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: GH_MW_FR7
	Soil Desc	cription		l ts	တ္တလိ	Sa	՝	% 1	0 ¹ 10 ² 10 ³ 10	
1	SILT, some sand, fine grained, s medium plasticity, damp to moist staining.	ome clay, bro , organics (ro	wn, soft, ots), orange					80		CONCRETE
3-	SAND and GRAVEL, fine to coar coarse gravel, subrounded, some 100 mm diameter, loose, wet.	se grained sa e silt, containi	and, fine to ng cobbles to			FR7-02		80		T
5	SILT and CLAY, grey, very soft, h	igh plasticity	massive, moist.					100		BENTONITE
9-10-				NO Bold Diff and	TES saded saderential selections	mple d	enot-twee	es sa en silt	mple analyzed (g and clay fraction sis samples.	grain size distribution). s inferred based on plasticity

	CRIC. T AND	TINI	Te	ck C	Client oal Lin	nited			Boreho	ole No. : GH_BH_FR7
7))	SNC+LAVA		Teck Coa		cation ional G	roundv	vater			PAGE 2 OF 6
Drilling Boreho	Contractor Mud Bay Drilling Co. Ltd. Method Vibratory Sonic ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5545431.	(m)	1491 1492	1 10 06 1.862 2.519 ing: 653	753.23	38	Project Number: Borehole Logged Date Drilled: Log Typed By:	684431 I By: MM 2021 09 25 VL
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Le ▽ Water Le ◆ NAPL ◇ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count		Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: GH_MW_FR7
	Soil Des	cription		Stra	S Sa	Sal	ā	% 10	0 ¹ 10 ² 10 ³ 10	
11	SILT and CLAY, grey, very soft, (continued)	high plasticity	, massive, moist.					100		BENTONITE
				NOT Bold Diffe	r ES led sa erentia select	mple d ition be grain s	enote twee size a	es sa en silt analys	mple analyzed (g and clay fraction sis samples.	rain size distribution). s inferred based on plasticity

	CNIC . T AND	TINT	Te		Client oal Lir	nited				Boreho	le No. : Gl	1_BH_FR7
7/)	SNC · LAVA	TTIN	Teck Coa		cation ional (Froundw	ater				PAGE 3 O	F 6
Drilling Boreh	g Contractor Mud Bay Drilling Co. Ltd g Method Vibratory Sonic ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05	l.	Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5545431.	(m) ´	149 149	1 10 06 1.862 2.519 ting: 6537	7 53.23	88		Project Number: Borehole Logged Date Drilled: Log Typed By:		31 09 25
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Lev ✓ Water Lev ◆ NAPL ◇ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	•	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid P ¹ Slotted Well Name 1	
Dep	Soil Des	scription		Strat	Sam	Sam	Blov	% Re	1 ₀ 1	10 ² 10 ³ 10 ⁴		
20–207 11 10 Avioc: TC 2021 11 10 Print Date: 203-03-03-03-03-03-03-03-03-03-03-03-03-0	SILT and CLAY, grey, very soft, (continued) Between 21.0 m and 24.1 m - 1	, high plasticity,	massive, moist.			FR7-08		130				BENTONITE
3A/QC: TC 2021				NOT Bold Diffe and	r ES ded sa erentia selec	mple de ition bet t grain s	enote twee size a	es sa n sil analy	amp t an ysis	ole analyzed (g nd clay fractions samples.	rain size dist s inferred ba	tribution). sed on plasticity

	CNICAT AND	TINI	Te		Client oal Lin	nited			Boreh	ole No. : GH_BH_FR7
7)	SNC·LAVA	LLIN	Teck Coa		cation ional G	roundv	<i>r</i> ater			PAGE 4 OF 6
Drilling Boreho	Contractor Mud Bay Drilling Co. Ltd Method Vibratory Sonic ble Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5545431.	(m)	1491 1492		753.23	38	Project Number: Borehole Logge Date Drilled: Log Typed By:	: 684431 d By: MM 2021 09 25 VL
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Le ⊽ Water Le • NAPL ∴ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: GH_MW_FR7
De	Soil Des	scription		Strat	Sam	Sam	Bjo	N %	0 ¹ 10 ² 10 ³ 10	
33 - 33 - 33 - 33 - 33 - 33 - 33 - 33	SILT and CLAY, grey, very soft, (continued) At 34.3 m - 5 mm thick silt sean At 34.4 m - 5 mm thick silt sean At 34.4 m - 150 mm thick layer	n. n.		NOT	FS	FR7-13		100		BENTONITE
JAVAC: 10 ZUZI				NOT Bold Diffe and	ded sa erentia	mple de tion be grain s	enot twee size	es sa en silt analy	mple analyzed (o and clay fractior sis samples.	grain size distribution). is inferred based on plasticity

	CNIC . T ANIA	TINI	To		Client oal Lir	nited			Boreh	ole No. : GH_BH_FR7
7)	SNC·LAVA	LLIN	Teck Coa		cation ional (/ater			PAGE 5 OF 6
Drilling Boreh	g Contractor Mud Bay Drilling Co. Ltd g Method Vibratory Sonic ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5545431.	. (m) ´	149 149	1 10 06 1.862 2.519 ting: 6537	753.23	38	Project Number: Borehole Logge Date Drilled: Log Typed By:	
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Lev □ Water Lev • NAPL • NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: GH_MW_FR7
Dep	Soil Des	scription		Strati	Samp	Samp	Blov	% Re	10 ¹ 10 ² 10 ³ 10	71
40 – 40 – 40 – 41 – 41 – 41 – 41 – 41 –	SILT and CLAY, grey, very soft, (continued) Between 43.3 m and 43.6 m - s SANDY SILT, fine to coarse gragravel, fine, subangular, stiff, lot CLAYEY SILT, grey, stiff to very moist.	high plasticity, ilt, some sand, ained sand, sor w plasticity, ma	fine grained. me clay, trace assive, wet.			FR7-15		130		BENTONITE
2A/QC: TC 2021 11				NOT Bold Diffe	r ES ded sa erentia selec	imple de ation be t grain s	enot twee size	es sa en sil anal	ample analyzed (g t and clay fractior ysis samples.	grain size distribution). is inferred based on plasticity

	CNIC. T ANIA	TINI	Т		Client oal Lir	nited			Boreho	ole No. : GH_BH_FR7
 *//	SNC · LAVA		Teck Coa		cation ional (ater			PAGE 6 OF 6
Drilling Boreho	g Contractor Mud Bay Drilling Co. Ltd. y Method Vibratory Sonic ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5545431.	. (m) ´	149 149	1 10 06 1.862 2.519 ting: 6537	753.23	38	Project Number: Borehole Logger Date Drilled: Log Typed By:	
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Lev □ Water Lev • NAPL ○ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	 Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm) 	Solid PVC Slotted PVC Well Name 1: GH_MW_FR7
De	Soil Des	cription		Stra	San	San	Blo	% R	10 ¹ 10 ² 10 ³ 10	9
50-	CLAYEY SILT, grey, stiff to very moist. (continued)	stiff, high plas	ticity, massive,					100		BENTONITE
52-	SAND, fine to medium grained, loose, massive, wet.	some silt, trac	e clay, grey, very			FR7-19A				GH_MW_FR7
53-	SAND and GRAVEL, fine to coacoarse gravel, subangular, some massive, wet. At 53.0 m - 300 mm thick layer of clay. At 54.3 m - 150 mm thick layer of the same statement of the s	e silt, well grac	led, grey, loose, rained, some			FR7-19B				SLOUGH
OA/OC: TC 202111 10 Print Date: 2023-03-224	Bottom of hole at 54.6 m.			KA ID						
QA/QC: TC 2021				Diffe	ded sa erentia	ation be	twee	n sil	ample analyzed (o t and clay fraction sis samples.	rain size distribution). s inferred based on plasticity

	CNIC . T ANIA	TINI	Т		Client oal Lin	nited			Boreho	le No. : GH_BH_FR8A
7 //	SNC+LAVA	TIN	Teck Coa		ocation ional (Groundy	vater			PAGE 1 OF 6
Drilling Boreh	g Contractor Mud Bay Drilling Co. Ltd. g Method Vibratory Sonic ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface El Top of Casing Elev Northing: 5545205	/. (m̀) ´	1492 1492	1 10 05 2.112 2.995 ting: 654	145.60	8	Project Number: Borehole Logged Date Drilled: Log Typed By:	684431 I By: AH NA VL
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Lev ⊽ Water Lev ◆ NAPL ◇ NAPL	rel 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: GH_MW_FR8A
	Soil Des	cription		Stra	Sa	Saı	B	% 10¹	10 ² 10 ³ 10	
0-	SILTY SAND, fine grained sand, plasticity, wet. Between 0.0 m and 0.9 m - conta	aining coal, bla						80		
2-	Between 1.5 m and 2.1 m - orang	ge staining.								
3-	Between 2.4 m and 2.7 m - fine to SAND and GRAVEL, fine to coar coarse gravel, subrounded, trace	rse grained sa	nd, fine to					80		
4-	SANDY CLAY, fine grained sand medium plasticity, wet. SANDY SILT, fine grained sand,									BENTONITE
6-	plasticity, wet.	7,3	,					100		
7-	SILT and CLAY, grey, soft, medi	um plasticity, \	wet.							
8-	At 8.2 m - high plasticity, moist.									
9-	· · · · · · · · · · · · · · · · · · ·							100		
10-				NOT Diffe and	rES erentia selec	ation be	etwee size a	n silt a	and clay fractions s samples.	s inferred based on plasticity

	CNIC AT ANIA	TINT	Te		Client oal Lin	nited				Borehol	e No. :	GH_BH_	FR8A
 	SNC·LAVA		Teck Coa		cation ional G	roundw	vater				PAGE 2	2 OF 6	
Drilling Boreho	Contractor Mud Bay Drilling Co. Ltd Method Vibratory Sonic ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05	l.	Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5545205.2	(m)	1492 1492	10 05 .112 .995 ng: 6541	145.60	08		Project Number: Borehole Logged Date Drilled: Log Typed By:	By: A	684431 AH NA VL	
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Le ▽ Water Le ◆ NAPL ◇ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	• ! • i	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Sle	olid PVC otted PVC mme 1: GH_M	W_FR8A
Dek	Soil Des	scription		Strat	Sam	Sam	Blo	% Re	1 ₀ 1	10 ² 10 ³ 10 ⁴			
11 11 12 13 13 14 15 15 15 15 15 15 15 15 15 15 15 15 15	SILTY SAND, fine grained sand plasticity, wet. SILT and CLAY, grey, soft, high	lium plasticity,	ey, soft, low	NOT				100					BENTONITE
JAVAC: 10 2021				NOT Diffe and	erentia	tion be grain s	twee size	en sil anal	t an ysis	d clay fractions samples.	sinferred	d based o	n plasticity

*))	SNC+LAVA	TIN	Т	eck C	Client oal Lim	nited			Borehol	e No. : GH_BH_FR8A
			Teck Coa		ocation ional G	roundw	ater		1	PAGE 3 OF 6
Drilling Boreho	Contractor Mud Bay Drilling Co. Ltd Method Vibratory Sonic ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5545205.	(m)	1492 1492		145.60)8	Project Number: Borehole Logged Date Drilled: Log Typed By:	684431 By: AH NA VL
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Le ▽ Water Le • NAPL ◇ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: GH_MW_FR8A
De	Soil Des	scription		Strai	Sam	Sam	Blo	8 K	1,0 ¹ 1,0 ² 1,0 ³ 1,0 ⁴	
21	SILT and CLAY, grey, soft, high	plasticity, moi		NO ₀ Diffe	TES erentia	tion be	twee	100		BENTONITE Sinferred based on plasticity
				Diffe	erentia	tion be grain s	twee size a	n sil anal	t and clay fractions /sis samples.	s inferred based on plasticity

	*) SNC+LAVALIN		Client Teck Coal Limited							Borehole No. : GH_BH_FR8A			
7))	5NC+LAVA	Teck Coa	Location Teck Coal Regional Groundwater						PAGE 4 OF 6				
Drilling Boreh	g Contractor Mud Bay Drilling Co. Ltd g Method Vibratory Sonic ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5545205.	. (m̀) ´	1492 1492	1 10 05 2.112 2.995 ing: 654	145.6	08		Project Number: Borehole Logged Date Drilled: Log Typed By:	By:	684431 AH NA VL	
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Lev □ Water Lev • NAPL □ NAPL	vel 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	•	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	SI SI	olid PVC otted PVC ame 1: GH_M	lW_FR8A
De	Soil Description		Strai		Sam	Sam	Bio	% R	1 ₀ 1	10 ² 10 ³ 10 ⁴			
31-32-	SILT and CLAY, grey, soft, high	plasticity, mois	st. (continued)					100					
33	SAND, fine grained, some silt, ç	grey, loose, wet	i.										
	SILT and CLAY, grey, soft, high	plasticity, mois	st.					100	:				
34-	At 34.7 m - 2 mm thick sand, fir	ne grained sear	n.										- BENTONITE
38 - 38 - 39 - 39 - 39 - 39 - 39 - 39 -	At 38.4 m - 2 mm thick sand, fir	ne grained sear	n.	NOT	erentia	ition be	atwee	100	llt ar	nd clay fractions	s inferred	d based o	on plasticity

W C.	NICAT AXIA	TINI	Client Teck Coal Limited						Borehol	Borehole No. : GH_BH_FR8A			
7)) 3.	SNC • LAVALIN Teck Coa						ater			PAGE 5 OF 6			
Drilling Contract Drilling Method Borehole Dia. (Pipe/Slotted Pi	m) 0.15	i.	Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5545205.	. (m) ´	1492 1492		45.60	8	Project Number: Borehole Logged Date Drilled: Log Typed By:	684431 By: AH NA VL			
	ng Legend ☑ Sample Interval ☑ Vibrasonic	Water/NA ▼ Water Lev ▽ Water Lev ◆ NAPL ◇ NAPL	rel 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: GH_MW_FR8A			
ă	Soil Description			Stra	Sar	Sar	ĕ	Ж.	10 ¹ 10 ² 10 ³ 10 ⁴				
41- 42- 43-	and CLAY, grey, soft, high	n plasticity, mois	st. (continued)					100		BENTONITE GH_MW_FR8A			
SILT SANE trace 45 SILT SANE SSANE SSANE SSANE SILT SILT SANE	AND, fine grained sand CLAY, grey, soft, high, fine to medium grained, silt, grey, loose, wet. and CLAY, grey, soft, high Y CLAY, fine to medium medium plasticity, wet. and CLAY, grey, soft, high T m - 20 mm thick sand, 1	n plasticity, mois trace gravel, fil n plasticity, mois grained sand, s n plasticity, mois	st. ne, subrounded, st. ome silt, grey,					100		SAND			
47 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -				NO _{Diffe} and	erentia	tion be	twee	n sil	t and clay fractions	BENTONITE s inferred based on plasticity			

	SNC+LAVALIN				Client oal Lin	nited			Borehole No. : GH_BH_FR8A			
7/)	SINC*LAVA		ocation ional G	roundw	/ater		PAGE 6 OF 6					
Drilling Boreho	Contractor Mud Bay Drilling Co. Ltd Method Vibratory Sonic ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface El- Top of Casing Elev Northing: 5545205	/. (m) ´	1492 1492	1 10 05 2.112 2.995 ing: 6541	145.60		Project Number: 684431 Borehole Logged By: AH Date Drilled: NA Log Typed By: VL			
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Lev □ Water Lev • NAPL □ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count		Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm) Solid PVC Soltted PVC Well Name 1: GH_MW_FR8A			
De	Soil Description			Strat	Sam	Sam	Blo	ਔ % 10	10 ¹ 10 ² 10 ³ 10 ⁴			
51-52-53-54-	SILT and CLAY, grey, soft, high Between 50.3 m and 51.2 m - m At 51.2 m - 100 mm thick sand,	nedium dense.						100	BENTONITE			
55-	Bottom of hole at 55.0 m.							1	<u>ii</u> [////			
204QC: IC 2021 11 10 Print Date: 2023-03-24				NOT	ree.							
3A/QC: TC 2021				NOT Diffe and	rES erentia select	ition be grain s	twee size a	n silt analys	t and clay fractions inferred based on plasticit sis samples.	ty		

	CRIC. T ANIA	Client Teck Coal Limited						Borehole No. : GH_BH_FR8B			
 7))	SNC+LAVA	Teck Co		cation ional C	Froundy	ater		PAGE 1 OF 1			
Drilling Boreho	g Contractor Mud Bay Drilling Co. Ltd. g Method Vibratory Sonic ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05	Date Monitored 2021 10 05 Ground Surface Elev. (m) 1492.125 Top of Casing Elev. (m) 1492.993 Northing: 5545206.676 Easting: 654145.781						Project Number: 684431 Borehole Logged By: AH Date Drilled: NA Log Typed By: VL			
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Lev □ Water Lev • NAPL □ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	indicated scale	Solid PVC Slotted PVC Well Name 1: GH_MW_FR8B	
٥	Soil Description			Str	Sar		B	% 10	¹ 10 ² 10 ³ 10		
0-	SILTY SAND, fine grained sand, plasticity, wet. Between 0.0 m and 0.9 m - conta	aining coal, bl	ack.		\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\			80		BENTONITE	
2-	Between 1.5 m and 2.1 m - orang	ge staining.			>>>>>>					■ Senionie	
3-	SAND and GRAVEL, fine to coar coarse gravel, subrounded, trace				\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\			80		GH_MW_FR8B	
5-	SANDY CLAY, fine grained sand medium plasticity, wet. SANDY SILT, fine grained sand, plasticity, wet.		,							BENTONITE	
6-	Bottom of hole at 6.1 m.			·				į.	·····		
7-											
8 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1											
9-											
				NOT Diffe and	r ES erentia select	ition be t grain s	twee size a	n silt a analys	and clay fraction is samples.	s inferred based on plasticity	

Line Creek Operations Borehole Logs – Wells for Evaluation

Borehole No: LC_MW_LC1-1A **Teck Coal Limited** Project: LCO Phase 2 Water Treatment Project No: ENW.GENV03056-01 Location: Upper Line Creek Ground Elev: 1642.52 m UTM: 661955.34 E; 5538175.93 N; Z 11 Elk Valley, British Columbia Moisture Content (%) Sample Type SOIL SYMBOL Elevation (m) Soil Depth (m) SC Description Plastic Moisture Liquid Content Limit 20 40 60 80 GRAVEL (FILL) - sandy, fine grained gravel 6.1 1642 - (Gravel - 66%; Sand - 24%; Silt & Clay - 10%) GW - damp 1641 2 1640 9.4 GRAVEL - sandy, some silt, subangular gravel, wet, brown 3 1639 1638 - rounded cobbles to 125 mm diameter 1637 1636 1636 9.7 - (Gravel - 60%; Sand - 26%; Silt & Clay - 14%) mm - fine grained angular to subangular gravel, cobbles to 125 mm diameter (102 | 8.3 auger 1635 8 stem 1634 8.5 Solid 9 - cobbly, trace sand 1633 10 1632 11 9.3 SAND - gravelly, trace silt, subangular to subrounded gravel, well graded, wet to very wet, compact, dark 1631 SW 12 GRAVEL - sandy, trace silt, subangular to subrounded gravel, fine grained sand, well graded, very wet, 1630 compact, dark brown GW 13 1629 - at 13.59 m, intermixed with CLAY - some sand, moist, firm, medium plastic, dark brown 14 CLAY - some silt, some gravel, wet, brown - damp, firm 1628 15 END OF BOREHOLE (15.24 metres) 1627 water - 5.49 metres below ground on December 5, 2021 Monitoring well installed to 13.98 metres Monitoring well diameter: 55 mm 1626 Screened Interval: 10.93 - 13.98 metres below ground 17 020 Slot Size 10/20 Filter Sand 1625 Top of sand: 9.75 metres below ground Top of PVC: 1643.620 masl 18 1624 19 1623 Contractor: Mud Bay Drilling Completion Depth: 15.24 m **TETRA TECH** Equipment Type: TerraSonic 150CC Rotosonic Drill Rig Start Date: 2021 December 3 Logged By: Carl Forkheim Completion Date: 2021 December 4 Reviewed By: Stephan Klump Page 1 of 1

Borehole No: LC_MW_LC1-2A **Teck Coal Limited** Project: LCO Phase 2 Water Treatment Project No: ENW.GENV03056-01 Location: Upper Line Creek Ground Elev: 1645.1 m Elk Valley, British Columbia UTM: 662008.42 E; 5538214.14 N; Z 11 Moisture Content (%) SOIL SYMBOL Sample Type Elevation (m) SPT (N) Soil Depth (m) ■ SPT (N) ■ 40 60 USC ■ Soluble Sulphates (%) ■ Description 2 3 Plastic Moisture Liquid Content Limit Limit 20 40 80 GRAVEL (FILL) - sandy, dry - white GW 61 1644 CLAY - silty, some sand, some gravel, subangular gravel to 20 mm diameter, moist to wet, firm, medium plastic, dark brown CI 1643 18.8 GRAVEL - sandy, some silt, subangular gravel, brown 3 1642 GW - wet 1641 237 75.2 CLAY - some silt, trace gravel, wet, light brown 5 8.2 1640 - at 5.03 m, GRAVEL - sandy, trace silt, trace clay, subrounded to subangular gravel to 50 mm diameter, well graded, very wet, brown CH 1639 - subangular gravel 48 4.3 Dec5/21 **₿**38 Dec. GRAVEL - very fine grained sand, coarse grained angular to 8 102 subangular gravel, wet 1637 GW auger 9 1636 CLAY - silty, gravelly, some sand, subangular to subrounded gravel to 50 mm diameter, moist to wet, firm to stiff, medium CI 16.7 plastic, dark brown to black 1635 SAND - silty, trace clay, trace gravel, fine grained sand, wet, dark brown SM 11 1634 22.6 GRAVEL - some fine grained sand, angular to subangular GW gravel, wet, brown 12 1633 SAND - silty, fine grained sand, wet, brown SM 13 1632 GRAVEL, COBBLES AND SAND - fine grained sand, angular to subangular gravel, wet, dark brown 14 1631 GW 15 1630 CLAY - some angular gravel, damp, light brown - at 15.70 m, GRAVEL - sandy, trace clay, trace silt, 16 1629 subrounded to subangular gravel to 50 mm diameter, well graded, very wet, brown CI - sandy, fine grained sand, wet, dark brown 1628 - at 16.92 m, SAND - silty, trace gravel, trace clay, very wet, compact, dark brown 18 1627 END OF BOREHOLE (18.29 metres) water - 6.73 metres below ground on December 5, 2021 19 Monitoring well installed to 14.67 metres 1626 Monitoring well diameter: 55 mm Screened Interval: 11.62 - 14.67 metres below ground Contractor: Mud Bay Drilling Completion Depth: 18.29 m Equipment Type: TerraSonic 150CC Rotosonic Drill Rig Start Date: 2021 December 3 **TETRA TECH** Logged By: Megan Savage Completion Date: 2021 December 3 Reviewed By: Stephan Klump Page 1 of 2

Borehole No: LC_MW_LC1-2A **Teck Coal Limited** Project: LCO Phase 2 Water Treatment Project No: ENW.GENV03056-01 Location: Upper Line Creek Ground Elev: 1645.1 m Elk Valley, British Columbia UTM: 662008.42 E; 5538214.14 N; Z 11 Moisture Content (%) LC_MW_LC1-2A SOIL SYMBOL Sample Type Elevation (m) SPT (N) Soil Depth (m) NSC ■ SPT (N) ■ 40 60 80 ■ Soluble Sulphates (%) ■ 2 Description 3 Plastic Moisture Liquid Limit Content Limit 20 40 80 1625 020 Slot Size 10/20 Filter Sand Top of sand: 10.67 metres below ground Top of PVC: 1646.135 masl 21 1624 22 1623 23 1622 24 1621 25 1620 26 1619 27 1618 28 1617 29 1616 30 1615 31 1614 32 1613 33 1612 34 1611 35 1610 36 1609 37 1608 38 1607 39 1606 Contractor: Mud Bay Drilling Completion Depth: 18.29 m Equipment Type: TerraSonic 150CC Rotosonic Drill Rig Start Date: 2021 December 3 **TETRA TECH** Logged By: Megan Savage Completion Date: 2021 December 3 Reviewed By: Stephan Klump Page 2 of 2

Borehole No: LC_MW_LC1-3A **Teck Coal Limited** Project: LCO Phase 2 Water Treatment Project No: ENW.GENV03056-01 Location: Upper Line Creek Ground Elev: 1647.03 m UTM: 661989.64 E; 5538247.11 N; Z 11 Elk Valley, British Columbia Moisture Content (%) LC_MW_LC1-3A Sample Type SOIL SYMBOL Elevation (m) Soil Depth (m) SC Description Plastic Moisture Liquid Content Limit 80 20 40 60 GRAVEL (FILL) - sandy, damp 1646 13.1 - dry CLAY - silty, wet, brown 1645 GRAVEL - sandy, some silt and clay, subangular gravel, wet, brown 6.8 - (Gravel - 77%; Sand - 15.1%; Silt & Clay - 7.9%) 3 1644 8.8 1643 5.9 COBBLES AND GRAVEL - fine to coarse grained sand, cobbles to 200 mm diameter, wet 1.1 1642 4.2 1641 GRAVEL - some sand, some silt, some clay, coarse grained angular to subangular gravel, fine grained sand, well graded, wet 1640 7.4 - (Gravel - 51%; Sand - 35.8%; Silt & Clay - 13.2%) Dec56 9 1638 GW 10 1637 Sonic (6.5 1636 12 1635 - cobbles to 125 mm diameter 13 1634 SAND - silty, trace clay, fine grained subangular sand, poorly graded, wet, black 1633 14 SM 15 1632 SILT - clayey, wet, black ML16 1631 CLAY - silty, sandy, some gravel to gravelly, gravel to 20 mm diameter, damp to moist, stiff, low plastic, dark grey to black 17 CL 1630-- some fine grained gravel, coarse grained sand, dry, hard - dry gravel layer GRAVEL - clayey, silty, angular to rounded gravel, well graded, wet, brown 1629 GC 19 1628 Completion Depth: 24.38 m Contractor: Mud Bay Drilling **TETRA TECH** Equipment Type: TerraSonic 150CC Rotosonic Drill Rig Start Date: 2021 December 1 Logged By: Carl Forkheim Completion Date: 2021 December 1 Reviewed By: Stephan Klump Page 1 of 2

Borehole No: LC_MW_LC1-3A **Teck Coal Limited** Project: LCO Phase 2 Water Treatment Project No: ENW.GENV03056-01 Location: Upper Line Creek Ground Elev: 1647.03 m Elk Valley, British Columbia UTM: 661989.64 E; 5538247.11 N; Z 11 Moisture Content (%) LC_MW_LC1-3A Sample Type SOIL SYMBOL Elevation (m) Soil Depth (m) SC Description Plastic Moisture Liquid Limit Content Limit 20 40 60 80 162 GC CLAY - silty, sandy, trace to some gravel, gravel to 20 mm diameter, damp to wet, soft to hard, low plastic, black 21 1626 CL шш - dry, very hard 102 - at 21.80 m, damp to moist, medium plastic, silt pockets, potential precipitates 22 1625 - at 22.71 m, gravel to 50 mm diameter 23 1624 CI 24 1623 END OF BOREHOLE (24.38 metres) water - 7.77 metres below ground on December 5, 2021 25 1622 Monitoring well installed to 13.56 metres Monitoring well diameter: 55 mm Screened Interval: 10.51 - 13.56 metres below ground 26 1621 020 Slot Size 10/20 Filter Sand Top of sand: 9.45 metres below ground Top of PVC: 1647.768 masl 27 1620 28 1619 29 1618 30 1617 31 1616 32 1615 33 1614 34 1613 35 1612 36 1611 37 1610 38 1609 39 1608 Contractor: Mud Bay Drilling Completion Depth: 24.38 m **TETRA TECH** Equipment Type: TerraSonic 150CC Rotosonic Drill Rig Start Date: 2021 December 1 Logged By: Carl Forkheim Completion Date: 2021 December 1 Reviewed By: Stephan Klump Page 2 of 2

Borehole No: LC_MW_WLC-1A **Teck Coal Limited** Project: LCO Phase 2 Water Treatment Project No: ENW.GENV03056-01 Location: West Line Creek Ground Elev: 1503.18 m UTM: 659753.09 E; 5532228.49 N; Z 11 Elk Valley, British Columbia Moisture Content (%) SOIL SYMBOL Sample Type Elevation (m) SPT (N) Soil Depth (m) ■ SPT (N) ■ 40 60 NSC ■ Soluble Sulphates (%) ■ Description 2 3 Plastic Moisture Liquid Limit Content Limit 20 40 80 ΤP TOPSOIL - trace gravel, rootlets, damp, black, (300 mm thick) 1503-GRAVEL - silty, clayey, subangular to rounded gravel, damp, 18.3 1502 35 GM 2 GC 1501 - trace sand, wood chips 3 1500 33 COBBLES AND GRAVEL - some silt, trace fine grained sand, rootlets, angular to subangular fine gravel, damp, dark grey 11.3 1499 - (Gravel - 65%; Sand - 24%; Silt & Clay - 11%) 5 GW 1498 - large boulder 6.5 1497 - trace clay 19.1 CLAY - silty, massive, damp, stiff, brown 1496 20 8 1495 24.6 - 75 mm thick silt laver CI 9 - decreasing silt content 22.5 ШШ 1494 (102)10 1493 - wet 9 SAND - trace silt, fine to coarse grained subrounded to rounded 11 SP sand, poorly graded, damp, brown 1492 - 100 mm thick silty clay band CLAY - trace silt, wet, soft, medium plastic, black 12 1491 SAND - trace to some silt, fine to coarse grained subrounded to rounded sand, damp, brown 13 1490 - 150 mm thick silt layer - damp, brown 14 1489 SW - trace gravel to 150 mm 15 - finer grained sand 1488 - gradual transition to silt and fine grained sand 16 1487 SAND - some gravel, trace silt, subrounded to subangular 1486 gravel to 40 mm diameter, well graded, damp to wet, loose, SW 18 CLAY - silty, some rounded gravel, damp, stiff, low plastic, 1485 CL 19 1484 - gradual transition to gravelly, no visible silt, trace coarse Contractor: Mud Bay Drilling Completion Depth: 48.77 m Equipment Type: TerraSonic 150CC Rotosonic Drill Rig Start Date: 2021 November 27 **TETRA TECH** Logged By: Carl Forkheim Completion Date: 2021 November 27 Reviewed By: Stephan Klump Page 1 of 3

Borehole No: LC_MW_WLC-1A **Teck Coal Limited** Project: LCO Phase 2 Water Treatment Project No: ENW.GENV03056-01 Location: West Line Creek Ground Elev: 1503.18 m Elk Valley, British Columbia UTM: 659753.09 E; 5532228.49 N; Z 11 Moisture Content (%) LC_MW_WLC-1A SOIL SYMBOL Sample Type Elevation (m) SPT (N) Soil Depth (m) NSC ■ SPT (N) ■ 40 60 ■ Soluble Sulphates (%) ■ 2 Description Plastic Moisture Liquid Limit Content Limit 20 40 80 subangular sand, subangular gravel, hard 1483-21 1482 CL 22 - cobbles 75 to 100 mm diameter 1481 - trace silt, fine rounded to angular gravel, dry to damp - silty, some angular gravel, damp, brown 23 1480 GRAVEL - clayey, silty, trace coarse grained sand, fine grained gravel to cobbles, damp, hard, dark grey - cobbles, dry 24 1479 - 200 mm thick silty clay band 25 1478 26 - wet for 900 mm 1477 - 200 mm thick silty clay and gravel layer, compact 27 1476 - pulverized cobble 28 1475 - pulverized cobble 29 - pulverized cobble 1474 30 1473 Sonic (31 1472 GC 32 - some coarse grained sand 147 33 1470 34 1469 - cobbles for 600 mm 35 1468 36 - some clayey silty gravel 1467 37 1466 38 1465 - 460 mm thick silty clay layer 39 1464 Contractor: Mud Bay Drilling Completion Depth: 48.77 m Equipment Type: TerraSonic 150CC Rotosonic Drill Rig Start Date: 2021 November 27 **TETRA TECH** Logged By: Carl Forkheim Completion Date: 2021 November 27 Reviewed By: Stephan Klump Page 2 of 3

Borehole No: LC_MW_WLC-1A **Teck Coal Limited** Project: LCO Phase 2 Water Treatment Project No: ENW.GENV03056-01 Location: West Line Creek Ground Elev: 1503.18 m UTM: 659753.09 E; 5532228.49 N; Z 11 Elk Valley, British Columbia Moisture Content (%) LC_MW_WLC-1A SOIL SYMBOL Sample Type Elevation (m) SPT (N) Soil Depth (m) NSC ■ SPT (N) ■ 40 60 80 ■ Soluble Sulphates (%) ■ 2 3 Description Plastic Moisture Liquid Content Limit Limit 20 40 1463-41 - 600 mm thick band of cobbles to 150 mm diameter 1462 - 600 mm thick silt layer - some clay, trace gravel, damp, hard 42 1461 - gradual transition to more clay and silt content 43 1460 GM Sonic (102 1459 - 900 mm thick layer of increasing silt content, subangular to GM subrounded gravel, moist to wet 45 1458 - cobbles to 150 mm diameter 46 1457 47 - 600 mm thick clayey layer - moist, high plastic 1456 BEDROCK - pulverized, dry 48 - weathered, hard clay EDROCK 1455 END OF BOREHOLE (48.77 metres) 49 1454 water - dry on December 14, 2021 Monitoring well installed to 47.24 metres Monitoring well diameter: 55 mm 50 1453 Screened Interval: 44.19 - 47.24 metres below ground 020 Slot Size 10/20 Filter Sand 51 Top of sand: 43.28 metres below ground Top of PVC: 1504.107 masl 1452 52 1451 53 1450 54 1449 55 1448 56 1447 57 1446 58 1445 59 1444 Contractor: Mud Bay Drilling Completion Depth: 48.77 m **TETRA TECH** Equipment Type: TerraSonic 150CC Rotosonic Drill Rig Start Date: 2021 November 27 Logged By: Carl Forkheim Completion Date: 2021 November 27 Reviewed By: Stephan Klump Page 3 of 3

Borehole No: LC_MW_WLC-2A **Teck Coal Limited** Project: LCO Phase 2 Water Treatment Project No: ENW.GENV03056-01 Location: West Line Creek Ground Elev: 1488.33 m UTM: 659868.79 E; 5532370.14 N; Z 11 Elk Valley, British Columbia Moisture Content (%) SOIL SYMBOL Sample Type Elevation (m) SPT (N) Soil Depth (m) ■ SPT (N) ■ 40 60 NSC Description Plastic Moisture Liquid Limit Content Limit 20 40 80 TOPSOIL - rootlets, damp, (60 mm thick) TP 1488 SILT - some subangular gravel to 75 mm diameter, trace fine grained sand, trace clay, damp, soft, low plastic, brown 13.4 - (Gravel - 8%; Sand - 32%; Silt - 45%; Clay - 15%) 1487 ML 21 14.8 2 - increasing clayey gravel content 1486 18.6 GRAVEL - clayey, silty, sandy, trace cobbles, angular to 3 rounded gravel, damp 1485 - cobbles to 125 mm diameter шш 12.6 - at 4.11 m, CLAY - silty, gravelly, some sand, subangular GC 1484 gravel to 40 mm diameter, moist, low to medium plastic, GM 9.9 Dec**[**]/21 - (Gravel - 41%; Sand - 35.9%; Silt & Clay - 23.1%) - 300 mm thick gravelly clay layer - trace coarse grained 6.9 sand, low plastic 1482 - dry, increasing hardness MUDSTONE (BEDROCK) - weathered, trace fine grained sandy layers 6.4 1481 EDROCK - dry, hard, black 8 1480 9.7 9 END OF BOREHOLE (9.14 metres) 1479 water - 4.80 metres below on December 14, 2021 10 Monitoring well installed to 5.94 metres Monitoring well diameter: 55 mm 1478 Screened Interval: 4.42 - 5.94 metres below ground 020 Slot Size 11 10/20 Filter Sand 1477 Top of sand: 3.51 metres below ground Top of PVC: 1489.474 masl 12 1476 13 1475 14 1474 15 1473 16 1472 17 1471 18 1470 19 1469 Completion Depth: 9.14 m Contractor: Mud Bay Drilling **TETRA TECH** Equipment Type: TerraSonic 150CC Rotosonic Drill Rig Start Date: 2021 November 30 Logged By: Carl Forkheim Completion Date: 2021 November 30 Reviewed By: Stephan Klump Page 1 of 1

Borehole No: LC_MW_WLC-3A **Teck Coal Limited** Project: LCO Phase 2 Water Treatment Project No: ENW.GENV03056-01 Location: West Line Creek Ground Elev: 1511.42 m UTM: 659582.96 E; 5532281.38 N; Z 11 Elk Valley, British Columbia Moisture Content (%) LC_MW_WLC-3A SOIL SYMBOL Sample Type Elevation (m) SPT (N) Soil Depth (m) ■ SPT (N) ■ 40 60 NSC Description Plastic Moisture Liquid Limit Content Limit 20 40 80 SAND AND GRAVEL - rootlets, (300 mm thick) SW 1511 GRAVEL - sandy, some silt, boulders, angular to subangular GW gravel, medium to coarse grained sand, well graded, grey to 5.1 1510-- (Gravel - 66%; Sand - 25%; Silt & Clay - 9%) 1509 23.2 64 3 1508 1507 - some clay GW 26 18.5 1506 51 12.8 - no visible silt or boulders 1505 - some silt, boulders 7.2 1504 12 8 - 200 mm thick silt layer - some gravel, damp, brown 1503 9 22.7 ШШ - (Gravel - 10%; Sand - 26%; Silt & Clay - 64%) 29 1502 SAND - trace silt, fine grained sand, damp, brown Sonic (1501 28 11 1500 SP - 200 mm thick wet layer 12 1499 13 1498 14 - 150 mm thick dry layer 1497 - 150 mm thick wet, gravel, sand and silt layer CL CLAY AND SAND - gravelly, coarse grained sand, angular 15 gravel, moist, dense, low to medium plastic, black 1496 cobbles to 125 mm diameter СН CLAY - trace silt to silty, gravelly, dry to moist, hard, high 16 plastic, dark grey to black 1495 GRAVEL - sandy, silty, angular to subangular, damp, brown 1494 18 GM - pulverized limestone and dolostone, cobbles, free water 1493 19 1492 Contractor: Mud Bay Drilling Completion Depth: 47.85 m Equipment Type: TerraSonic 150CC Rotosonic Drill Rig Start Date: 2021 November 23 **TETRA TECH** Logged By: Carl Forkheim Completion Date: 2021 November 23 Reviewed By: Stephan Klump Page 1 of 3

Borehole No: LC_MW_WLC-3A **Teck Coal Limited** Project: LCO Phase 2 Water Treatment Project No: ENW.GENV03056-01 Location: West Line Creek Ground Elev: 1511.42 m UTM: 659582.96 E; 5532281.38 N; Z 11 Elk Valley, British Columbia Moisture Content (%) LC_MW_WLC-3A SOIL SYMBOL Sample Type Elevation (m) SPT (N) Soil Depth (m) ■ SPT (N) ■ 40 60 NSC Description Plastic Moisture Liquid Limit Content Limit 20 40 80 - silty, clayey, cobbly, no visible sand, angular to subangular 1491 gravel, moist, dense 21 1490-22 1489 23 1488 24 GM 1487 - 300 mm thick sand layer - trace subangular gravel, coarse 25 1486 - 900 mm thick clayey, silty layer - trace coarse grained sand, 26 1485 27 1484 - 600 mm thick sandy layer, some clay, some silt, trace cobbles 28 1483 No recovery 29 1482 30 Sonic (1481 31 1480 32 SAND - trace fine grained angular to subangular gravel, 1479 medium grained sand 33 - at 33.07 m, CLAY - silty, some sand, some gravel, 1478 subrounded to subangular gravel to 50 mm diameter, moist, firm, medium plastic, brown 34 - at 33.38 m, gravelly, subangular to subrounded gravel to 60 1477 SP 35 - 300 mm thick dry zone 1476 36 1475 Dec 14/21 GRAVEL - clayey, some sand and silt, angular gravel, damp GC 39 1472 - 600 mm thick sand layer - coarse grained angular sand, Completion Depth: 47.85 m Contractor: Mud Bay Drilling Equipment Type: TerraSonic 150CC Rotosonic Drill Rig Start Date: 2021 November 23 **TETRA TECH** Logged By: Carl Forkheim Completion Date: 2021 November 23 Reviewed By: Stephan Klump Page 2 of 3

Borehole No: LC_MW_WLC-3A **Teck Coal Limited** Project: LCO Phase 2 Water Treatment Project No: ENW.GENV03056-01 Location: West Line Creek Ground Elev: 1511.42 m UTM: 659582.96 E; 5532281.38 N; Z 11 Elk Valley, British Columbia Moisture Content (%) LC_MW_WLC-3A SOIL SYMBOL Sample Type Elevation (m) SPT (N) Soil Depth (m) NSC ■ SPT (N) ■ 40 60 80 Description Plastic Moisture Liquid Limit Content Limit 20 40 80 moist GC 41 CLAY - some sand, some gravel, some rounded cobbles, damp to moist, very stiff, low plastic, black 1470 CL 1469 GRAVEL - sandy, silty, clayey, angular gravel, damp, brown, iron inclusions 43 mm 1468 (102 - hard GM Sonic (1467 45 1466 46 CLAY - trace gravel, hard, dark grey 1465 CL 47 - weathered bedrock inclusions 1464 48 END OF BOREHOLE (47.85 metres) water - 37.43 metres below ground on December 14, 2021 1463 Monitoring well installed to 45.72 metres Monitoring well diameter: 55 mm 49 Screened Interval: 42.67 - 45.72 metres below ground 1462 020 Slot Size 50 10/20 Filter Sand Top of sand: 42.06 metres below ground 1461 Top of PVC: 1511.415 masl 51 1460 52 1459 53 1458 54 1457 55 1456 56 1455 57 1454 58 1453 59 1452 Contractor: Mud Bay Drilling Completion Depth: 47.85 m **TETRA TECH** Equipment Type: TerraSonic 150CC Rotosonic Drill Rig Start Date: 2021 November 23 Logged By: Carl Forkheim Completion Date: 2021 November 23 Reviewed By: Stephan Klump Page 3 of 3

			т		Client oal Lin	nited				Boreho	le No.	: RG_BH	_LCA
(•)	SNC+LAVA	LIN	Regiona	l Grou	cation indwat		torin	g -		ı	PAGE	1 OF 4	
Drilling Boreh	Contractor JR Drilling Method Dual Rotary Dial. (m) 0.18 Ottled Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev Northing: n/a	ev. (m)	n/a TBC TBC)				Project Number: Borehole Logged Date Drilled: Log Typed By:	Ву:	683032 SE 2021 08 10 VL	
Depth in Metres	Drilling Legend Sample Interval TYTY Air Rotary	Water/NA ▼ Water Le ▽ Water Le • NAPL ◇ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	•	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)		Solid PVC Slotted PVC Jame 1: RG_N	IW_LC4A
	Soil Desc	ription		Str	Sal	Saı	B	1%	10 ¹	10 ² 10 ³ 10 ⁴			
- 1-	SAND and GRAVEL, fine to coars trace silt, dark brown, damp. SAND, fine to medium grained, tra loose, dry.		/										
- - - -	Between 1.5 m and 1.8 m - contain SAND and GRAVEL, fine to coars												
3	At 4.9 m - dark brown, damp. At 5.8 m - moist. At 6.4 m - moist to wet.		and, line to										- BENTONITE
9-10-	Between 9.4 m and 10.1 m - conta	aining cobble	es.	NOT Cas Ben Cas 0.10	ES ing: 0 tonite: ing: 2: 0 slot	– 37.3 r : 0 – 7.1 -inch Soc size; So	m; S m; S hed	cree Sanc ule 4 Pack	en Ir dd Pa 440 P k: 10	nterval: 37.3 – 3 ack: 36.9 – 38.9 VC; Screens: 2 0/20 Frac Sand	88.9 m; 0 m 2-inch \$	Total Dep	th: 38.9 m

	CRIC. T ATTA	TINI	Te		Client oal Lin	nited				Boreho	le No	. : RG_E	BH_LCA
?))	SNC+LAVA	LIN	Regional	Grou	cation ndwat e Cree	er Monii k	torin	g -			PAGE	2 OF 4	4
Drilling Boreho	g Contractor JR Drilling g Method Dual Rotary ole Dia. (m) 0.18 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev. Northing: n/a		n/a TBD TBD East					Project Number: Borehole Logged Date Drilled: Log Typed By:	Ву:	683032 SE 2021 08 VL	10
Depth in Metres	Drilling Legend Sample Interval ▼*▼*▼ Air Rotary	Water/NA ▼ Water Lev □ Water Lev • NAPL □ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	•	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Well	Solid PVC Slotted PV0 Name 1: R0	C G_MW_LC4A
De	Soil Desc	cription		Stra	Sam	Sam	Blo	₽ 8	0 ¹	10 ² 10 ³ 10 ⁴			
13 14 15 16 17 18 18 19 18 19 18 19 18 19 18 19 18 19 18 18	SAND and GRAVEL, fine to coar coarse gravel, trace silt, brown, d	rse grained sa dry. (continued	and, fine to										—— BENTONITE
20				NOT Cas Ben Cas 0.10	ES ing: 0 tonite: ing: 2- 0 slot	– 37.3 i 0 – 7.1 inch Sc size; Sa	m; S m; s hed	cree Sanc ule 4 Pack	n lı l P 0 F	nterval: 37.3 – 3 ack: 36.9 – 38.9 PVC; Screens: 2 0/20 Frac Sand	38.9 m 9 m 2-inch	; Total D	epth: 38.9 m e 40 PVC,

				ok C	Client oal Lin				Boreho	ole No. : RG_BH_LCA
()	SNC+LAVA	LIN	Regional	Lo	ocation		orino			PAGE 3 OF 4
Drilling	Contractor JR Drilling		Date Monitored		ne Cre n/a		oring	-	Project Number:	
Drilling Boreho	Method Dual Rotary lle Dia. (m) 0.18 lotted Pipe Dia. (m) 0.05/0.05		Ground Surface Ele Top of Casing Elev. Northing: n/a		TBD TBD				Borehole Logged Date Drilled: Log Typed By:	
Depth in Metres	Drilling Legend Sample Interval TYYY Air Rotary	Water/NA ▼ Water Lev ▽ Water Lev ♠ NAPL ◇ NAPL	vel 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: RG_MW_LC4A
۵	Soil Desc	cription		Stra	Sar	Sar	B	% 10	0 ¹ 10 ² 10 ³ 10	4
23-23-23-23-23-23-23-23-23-23-23-23-23-2	BEDROCK, shale, grey, dry. (conditions) At 26.5 m - dark grey. At 27.0 m - light grey. Between 29.0 m and 29.6 m - dark At 29.6 m - light grey.									BENTONITE
				NOT Cas Ben Cas 0.10	TES ing: 0 tonite: ing: 2- 10 slot	– 37.3 r 0 – 7.1 inch Sc size; Sa	m; S m; s hed and	creen Sand ule 4(Pack:	Interval: 37.3 – Pack: 36.9 – 38.) PVC; Screens: 10/20 Frac San	38.9 m; Total Depth: 38.9 m 9 m 2-inch Schedule 40 PVC, d

	CRIC T ATTA	TTNI	Te		Client oal Lin	nited				Boreho	le No.	: RG_E	BH_LCA	
?))	SNC+LAVA	LIN	Regional (Groun	cation dwate e Cree		ring	-		ı	PAGE	4 OF 4	1	
Drilling Boreho	g Contractor JR Drilling I Method Dual Rotary ble Dia. (m) 0.18 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev. Northing: n/a	v. (m)	n/a TBD TBD	ı				Project Number: Borehole Logged Date Drilled: Log Typed By:	By:	683032 SE 2021 08 VL	10	
Depth in Metres	Drilling Legend Sample Interval ▼▼▼ Air Rotary	Water/NA ▼ Water Le ⊽ Water Le • NAPL ○ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	Recovery	•	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	s	Solid PVC Slotted PVC	C G_MW_LC4#	Ą
	Soil Desc	ription		Stra	Sar Cor	Sar	В	~	0 ¹	10² 10³ 10⁴				
33-33-33-33-33-33-33-33-33-33-33-33-33-	BEDROCK, shale, grey, dry. (conditions) Between 32.0 m and 32.3 m - dark At 33.8 m - dark grey. At 34.1 m - light grey. At 38.1 m - light tan.												RG_MW_LC	
- 40				NOT Cas Ben Cas 0.10	ES ing: 0 tonite: ing: 2- 0 slot	– 37.3 r 0 – 7.1 inch Sc size; Sa	m; S m; S hedi	creei Sand ule 4 Pack	n lı I P 0 F :: 1	nterval: 37.3 – 3 ack: 36.9 – 38.9 PVC; Screens: 2 0/20 Frac Sand	88.9 m;) m 2-inch S	Total D	epth: 38. e 40 PVC	9 m Ç,

				C Teck C	Client oal Lin	nited				Boreho	le No.	: RG_BH_LCB
(\$)	SNC+LAVA	LIN	Regiona	l Groui	cation ndwate ne Cre	er Monite	oring	ı -			PAGE	1 OF 1
Drilling Boreh	g Contractor JR Drilling g Method Dual Rotary ole Dia. (m) 0.18 Slotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface E Top of Casing Ele Northing: n/a	lev. (m)	n/a TBD TBD)				Project Number: Borehole Logged Date Drilled: Log Typed By:	Ву:	683032 SE 2021 08 13 VL
Depth in Metres	Drilling Legend Sample Interval ▼▼▼▼ Air Rotary	Water/NA ▼ Water Le □ Water Le • NAPL □ NAPL		 Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	•	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	s	iolid PVC ilotted PVC ame 1: RG_MW_LC4B
ď	Soil Des	cription		Stra	San	San	Blo	₩ %	0 ¹	10 ² 10 ³ 10 ⁴		
0-	SAND and GRAVEL, fine to coal coarse gravel, trace silt, brown, coanse gravel, trace silt, brown, coanse grained, to brown, loose, dry.	dry.										
2-	SAND and GRAVEL, fine to coar coarse gravel, trace silt, containing	rse grained sang cobbles, liq	and, fine to ght brown, dry.									BENTONITE
4-												
6-	, ,								· · · · · · · · · · · · · · · · · · ·			
7-	At 6.4 m - damp to moist.											RG_MW_LCB
9-10-	Bottom of hole at 8.4 m.				<u> ▼`</u> ▼ <u>`</u> ▼					: : :	<u> </u>	BENTONITE
				NOT Cas Ben Cas 0.10	ES ing: 0 tonite: ing: 2- 0 slot	– 8.1 m 0 – 6.2 inch Sc size; Sa	; Sc ! m; ! hed and	reen Sanc ule 4 Pack	Int I P 0 F :: 1	terval: 6.6 – 8.1 ack: 6.2 – 8.1 m PVC; Screens: 2 0/20 Frac Sand	m; Tota n; Bento 2-inch S	al Depth: 8.1 m unite: 8.1 - 8.4 m Schedule 40 PVC,

	CRIC. I ANIA	TINI	Te	eck C	Client oal Lin	nited			Borehol	e No. : LC_BH_ERX1A
 7)	SNC·LAVA		Regional		cation ndwate	r Monito	oring			PAGE 1 OF 3
Drillin Boreh	g Contractor Mud Bay Drilling Co. Ltd. g Method Vibratory Sonic ole Dia. (m) 0.15 Slotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Electory of Casing Electory Northing: 5526826.8	. (m̀) ´	n/a).869 ting: 6550)35.57	7 4	Project Number: Borehole Logged Date Drilled: Log Typed By:	686625 By: AH 2021 11 18 VL
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Lev ∇ Water Lev • NAPL ∴ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: LC_MW_ERX1A
Dept	Soil Des	cription		Stratic	Samp Core F	Samp	Blow	-0	0 ¹ 10 ² 10 ³ 10	
3- 1- 2- 3- 3- 4- 4- 8- 8- 8-	GRAVELLY SAND (TILL), fine to coarse gravel, subangular to sub brown, medium dense, low plast damp. Between 0.0 m and 0.6 m - controxidation. Between 2.1 m and 3.0 m - bould between 3.0 m and 4.6 m - dense bedded. BOULDER, aphanitic, moderate bedded. SANDY GRAVEL (TILL), fine to fine to medium grained sand, so dense, low plasticity, damp. Between 9.1 m and 9.4 m - bould subanal sand, fine to medians between the plasticity damp.	der. coarse gravel, soarse gravel,	e clay, trace silt, g cobbles, naterial, orange ed, thickly subangular, silt, grey-brown,					80 80 90 90 90 90 90 90 90 90 90 90 90 90 90		BENTONITE
2777				NOT	ES					
j S										

rilling Contracto rilling Method orehole Dia. (m) ipe/Slotted Pipe Drilling Drilling Between SILTY C some cl		Water/NA ▼ Water Lev ▽ Water Lev • NAPL ◇ NAPL		Elev. (m) vv. (m) 5.843	n/a 1300 n/a East	or Monit o 0.869 ting: 6550			Project Number: Borehole Logged Date Drilled: Log Typed By:	PAGE 2 OF 3 686625 AH 2021 11 18 VL
rilling Method orehole Dia. (m) ipe/Slotted Pipe Drilling Septimized Pipe Septimized P	Vibratory Sonic 0.15 Dia. (m) 0.05/0.05 Legend J Sample Interval Vibrasonic	Water/NA ▼ Water Lev ▽ Water Lev ♠ NAPL ◇ NAPL	Ground Surface E Top of Casing Ele Northing: 5526826 PL Levels vel 1	v. (m) 6.843	1300 n/a East		035.57		Borehole Logged Date Drilled:	By: AH 2021 11 18
Signature of the state of the s	Soil Des	▼ Water Lev	vel 1	ıy Plot						
10 Between SILTY 0		scription		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Property of the control of the contr	Solid PVC Slotted PVC Well Name 1: LC_MW_ERX1A
SILTY C	n 9.8 m and 10.1 m - lig			Stra	Sar Cor	Sar	ğ	% 10	¹ 10 ² 10 ³ 10 ⁴	ı
13- SILTY C some cl dense, I	GRAVEL (TILL), fine to cay, trace sand, fine to mow plasticity, damp. (control of the control of the cay, trace sand, fine to cay, trace sand, fine to cay, trace sand, fine to cay plasticity, damp.	coarse gravel, s nedium grained ntinued) ght orange oxid coarse gravel, s oarse grained,	subangular, , dark brown, dization.		\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\			100		BENTONITE LC_MW_ERX1.

			_		Client				Borehole	e No. : LC_BH_ERX1A
((•)	SNC+LAVA	LIN		Lo	oal Lin					
			Regional	Grour		r Monito	oring			PAGE 3 OF 3
Drilling Boreho	g Contractor Mud Bay Drilling Co. Ltd. J Method Vibratory Sonic ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5526826.	. (m) ´	n/a).869 ing: 6550	35.57	74	Project Number: Borehole Logged Date Drilled: Log Typed By:	686625 By: AH 2021 11 18 VL
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Lev ▼ Water Lev • NAPL • NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: LC_MW_ERX1A
۵	Soil Des	cription		Stra	Sar	Sar	Bi	% F	10 ¹ 10 ² 10 ³ 10 ⁴	
20-	BEDROCK, shale, dark grey, we	eak. <i>(continued</i>	d)							LC_MW_ERX1A
	Bottom of hole at 21.2 m.									
23-24-25-26-26-26-26-26-26-26-26-26-26-26-26-26-										
28-										
20- 20-										
MANGE: AH 2022 01 19				NOT	ES					
JAVAC: A										

		TTNT	Te		lient oal Lin	nited			Borehole	No.: LC_BH_ERX1B
 ?))	SNC+LAVA		Regional (cation dwate	r Monito	oring			PAGE 1 OF 2
Drilling Boreh	g Contractor Mud Bay Drilling Co. Ltd. g Method Vibratory Sonic ole Dia. (m) 0.15 Slotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5526832.0	(m) ´	n/a).856 ing: 6550)34.78	38	Project Number: Borehole Logged Date Drilled: Log Typed By:	686625 By: AH 2021 11 19 VL
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water Lev Water Lev NAPL NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count		Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: LC_MW_ERX1B
- 0-	Soil Des GRAVELLY SAND (TILL), fine to	o medium grai	ned sand, fine to	00 222		<i>w</i>		60	D ¹ 10 ² 10 ³ 10 ⁴	
2- 3-	coarse gravel, subangular to sub- containing cobbles, brown, medi damp. Between 0.0 m and 0.6 m - conta	orounded, som um dense, lov ains organic m	e clay, trace silt, v plasticity, naterial.					70		BENTONITE
7- 7- 8- 8-	SILTY GRAVEL (TILL), fine to or some clay, trace sand, fine to me	me clay, trace	silt, grey-brown,					100		
2020				NOT	ES					

	CRIC. I ANIA	TINI	Te	eck C	Client oal Lir	nited			Borehole	No. : LC_BH_ERX1B
 7 //	SNC+LAVA		Regional		cation ndwate	er Monito	ring			PAGE 2 OF 2
Drilling Boreh	g Contractor Mud Bay Drilling Co. Ltd. g Method Vibratory Sonic ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5526832.0	(m)	n/a).856 ting: 6550	34.78	38	Project Number: Borehole Logged Date Drilled: Log Typed By:	686625 By: AH 2021 11 19 VL
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Lev ∇ Water Lev ♠ NAPL ◇ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: LC_MW_ERX1B
Dep	Soil Des	cription		Stratic	Samp Core I	Samp	Blow	10 ¹ Rec	10² 10³ 10⁴	
11	Between 9.8 m and 11.6 m - ora SILTY GRAVEL (TILL), fine to consome clay, trace sand, fine to midense, low plasticity, damp. (consequence)	oarse gravel, s edium grained	subangular.					80		BENTONITE CC_MW_ERX1B SAND
14-	BEDROCK, shale, dark grey, we	eak.								BENTONITE
15-	Bottom of hole at 14.6 m.									
16										
17-										
19 19 1 1 1 1 1 1 1 1										
20-			г							
27. 71. 20.28 20. 71. 20.28				NOT	ES					

	CD10 T AT74	SNC+LAVALIN				nited			Borehole No. : LC_BH_SRD1A			
'))	SNC+LAVA	LIN	Regional		cation ndwate	r Monito	oring			PAGE 1 OF 4		
Orilling Boreho	Contractor JR Drilling Method Dual Rotary ole Dia. (m) 0.18 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface El Top of Casing Elev Northing: 5526817	v. (m̀) ´	1203	2.459 3.245 ing: 6536	603.69		Project Number: Borehole Logged Date Drilled: Log Typed By:	631283 By: AH 2021 08 24 VL		
Depth in Metres	Drilling Legend Sample Interval ▼▼▼▼ Air Rotary	Water/NA ▼ Water Lev ⊽ Water Lev • NAPL ○ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	P Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: LC_MW_SRD1A		
ñ	Soil Des	cription		Stra	San	San	B	₩ % 10	¹ 10 ² 10 ³ 10 ⁴			
0-	SILTY SAND, fine grained sand, subrounded, brown, loose, damp	trace gravel,	fine to coarse,									
1-	SAND and GRAVEL, fine graine subrounded, trace silt, grey, loos	d sand, fine to e, dry.	o coarse gravel,									
2-	Between 1.5 m and 3.0 m - less	fine grained s	and, less silt.									
3-												
4	Between 4.0 m and 4.6 m - less	sand, less silt	, damp.									
5-	GRAVEL, fine to coarse, subrout grey, loose, dry.	nded, trace sa	and, fine grained,	0						BENTONITE		
6-	SAND and GRAVEL, fine graine subrounded, brown, loose, dry.	d sand, fine to	o coarse gravel,									
7-	At 7.0 m - moist.											
8-1-1	GRAVEL, coarse, subrounded, g	rey, loose, dr	y.									
9-1-1-1-1-1	SAND and GRAVEL, fine to mec coarse gravel, subrounded, brow											
<u> </u>				NOT	TES					<u> </u>		

			<u> </u>	IN/					
<i>"</i>	SNC+LAVA	TINT	Teck	Client	.imited			Borehole	No.: LC_BH_SRD1A
U)	SINCYLAVA	TIL	Regional Gr	Locatio oundwa		oring		J	PAGE 2 OF 4
rillino oreh	g Contractor JR Drilling g Method Dual Rotary ole Dia. (m) 0.18 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Elev. (Top of Casing Elev. (m Northing: 5526817.666	n) 12	a 202.459 203.245 asting: 653	603.698	i	Project Number: Borehole Logged Date Drilled: Log Typed By:	631283 By: AH 2021 08 24 VL
Depth in Metres	Drilling Legend Sample Interval ▼▼▼▼ Air Rotary	Water/NA ▼ Water Lev ✓ Water Lev ♠ NAPL ♦ NAPL		Stratigraphy Plot Sample Interval	Core Kun Sample Number	Blow Count	% Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: LC_MW_SRD1A
	Soil Desc	cription	ð	Sa	S S	՝	% 10 ¹	10² 10³ 10⁴	
0—————————————————————————————————————	SAND and GRAVEL, fine to med coarse gravel, subrounded, brown GRAVEL, fine to coarse, subroun grained, poorly graded, brown, low samples of the subgraded, dark grey, wet. SAND and GRAVEL, fine to coarse gravel, subrounded to subgraded, dark grey, wet.	n, loose, wet. Ided, trace sacse, wet. se grained sacangular, trace se grained sacangular, silty	ind, fine to e silt, well						BENTONITE
116———————————————————————————————————	SANDY CLAY, assumed to be sa	indy clay, no		OTES	***************************************				

			<u> </u>		MA	<u> </u>			T	
<i>.</i>	CRIC. T AVIA	TTNT	т		Client oal Lin	nited			Borehole	No. : LC_BH_SRD1A
W	SNC+LAVA		Regional		ocation ndwate	r Monite	oring			PAGE 3 OF 4
orilling Meth Porehole Dia	tractor JR Drilling nod Dual Rotary a. (m) 0.18 I Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5526817.	. (m)	1203	2.459 3.245 ting: 6536	603.698	3	Project Number: Borehole Logged Date Drilled: Log Typed By:	631283 By: AH 2021 08 24 VL
	rilling Legend Sample Interval ▼▼▼ Air Rotary	Water/NA ▼ Water Lev □ Water Lev • NAPL □ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: LC_MW_SRD1A
ă	Soil Des	cription		Stra	San	San	B	% 10 ¹	10 ² 10 ³ 10 ⁴	
21- 	NDY CLAY, assumed to be sontinued) NDY CLAY, fine grained sandown, loose, wet.	d, some silt, m								
dar 25-	TY CLAY, trace sand, fine grank brown, wet.		edium plasticity,							BENTONITE
28- 	.TY CLAY, dark brown, soft.			NOT	ES					SAND

				111	-					
.11	CRIC. T ATTA	TTNT	Tec	Clie k Coa		nited			Borehole	No. : LC_BH_SRD1A
7))	SNC+LAVA		Regional G	Loca round		r Monito	oring		ı	PAGE 4 OF 4
Drillino Boreh	g Contractor JR Drilling g Method Dual Rotary ole Dia. (m) 0.18 Slotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Elev. Top of Casing Elev. (r Northing: 5526817.66	n) ´	1203	2.459 3.245 ing: 6536	603.69	18	Project Number: Borehole Logged Date Drilled: Log Typed By:	631283 By: AH 2021 08 24 VL
Depth in Metres	Drilling Legend Sample Interval TTV Air Rotary	Water/NA ▼ Water Lev	PL Levels vel 1 vel 2	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	P Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: LC_MW_SRD1A
۵	Soil Des	cription		Stra	Cor	San	Blc	₩ 10	¹ 10² 10³ 10⁴	
33-	SILTY CLAY, dark brown, soft. (WEATHERED BEDROCK, shale BEDROCK, shale, black, compe	e, dark brown,								LC_MW_SRD1A SAND BENTONITE
38-			1	NOTE	S					

				C	Client				Borehole	No.: LC_BH_SRD1B
))	SNC+LAVA	LIN		Lo	cation					PAGE 1 OF 2
illing oreho	g Contractor JR Drilling g Method Dual Rotary ole Dia. (m) 0.18 lotted Pipe Dia. (m) 0.05/0.05		Regional (Date Monitored Ground Surface Elet Top of Casing Elev. Northing: 5526819.6	v. (m) (m)	n/a 1202 1203	2.469 3.159 ing: 6536		4	Project Number: Borehole Logged Date Drilled: Log Typed By:	631283
Depth in Metres	Drilling Legend Sample Interval Air Rotary Soil Desc	▼ Water Lev ▼ Water Lev • NAPL • NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: LC_MW_SRD1B
0	SILTY SAND, fine grained sand, to brown, loose, dry. SAND and GRAVEL, fine to coars coarse gravel, subangular, dry.	trace clay, tra	and, fine to					10	102 103 104	
3 4 - 1 - 1	GRAVEL, fine to coarse, trace sa containing cobbles, dry.	nd, coarse gi	rained,							BENTONITE
5-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1	SAND and GRAVEL, fine to coars coarse gravel, brown, dry to damp		and, fine to							
7-	At 6.9 m - damp.									
9 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	SAND and GRAVEL, fine to coars coarse gravel, containing cobbles At 8.7 m - dry.									SAND LC_MW_SRD1B
				NOT	ES					

	CNICAT AND	TTNT	те	eck C	Client oal Lin	nited			Borehole	e No. : LC_BH_SRD1B
7/)	SNC+LAVA		Regional		cation ndwate	r Monito	oring			PAGE 2 OF 2
Drilling Boreho	g Contractor JR Drilling g Method Dual Rotary ole Dia. (m) 0.18 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5526819.6	. (m) ´	1203	2.469 3.159 ting: 6536	601.31	4	Project Number: Borehole Logged Date Drilled: Log Typed By:	631283 By: SE 2021 08 16 VL
Depth in Metres	Drilling Legend Sample Interval ▼▼▼▼ Air Rotary	Water/NA ▼ Water Lev ∇ Water Lev ♠ NAPL ♦ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: LC_MW_SRD1B
ă	Soil Des	cription		Stra	San	San	BIG	% 101	10 ² 10 ³ 10 ⁴	
10	GRAVEL, moist.									SAND
F 11-	Bottom of hole at 11.0 m.			102	,			I;		
12-										
13-										
14-										
15-										
16-										
17-										
18-										
19-										
20										
				NOT	ES					

	CDIO T ATZA		Те		Client oal Lin				Borehole	No. : LC_BH_SRD2A
V)	SNC+LAVA	LIN	Regional		cation	r Monite	oring			PAGE 1 OF 3
rilling Soreho	Contractor Mud Bay Drilling Co. Ltd. Method Vibratory Sonic ole Dia. (m) 0.15 oltted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5525984.2	(m) ´	n/a	7.216 ting: 6538	384.634		Project Number: Borehole Logged Date Drilled: Log Typed By:	686625 By: AH 2021 11 20 VL
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Lev ▽ Water Lev ♠ NAPL ◇ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	indicated scale	Solid PVC Slotted PVC Well Name 1: LC_MW_SRD2A
۵	Soil Desc	cription		Stra	Sar	Sar	ă	% 10 ¹	10 ² 10 ³ 10 ⁴	
0-	SILTY SAND, fine grained sand, plasticity, damp, contains rootlets	trace clay, br	own, loose, low					70		
1-	SAND, fine to medium grained, to poorly graded, brown, loose, dam	race gravel, fi np.	ne, subrounded,		> >>>>>					
2-	GRAVEL, fine to coarse, subrour coarse grained, brown, loose, dat (75-150 mm), subrounded.				******					
3-1-1-1	Between 3.7 m and 4.0 m - some	a cilt						70		
4	between 5.7 III and 4.0 III - Some	s Siit.			>>>>>>					
5								50		BENTONITE
7-	At 6.1 m - wet. Between 6.1 m and 9.1 m - trace	silt.			>>>>>					
8-1					>>>>>>					
9	Between 9.1 m and 10.7 m - conf	taining cobble	es.					50		
10					\bowtie					
			Ţ	NOT	ES					

Soil Description GRAVEL, fine to coarse, subrounded, some sand, fine to coarse grained, brown, loose, damp, containing cobbles (75-150 mm), subrounded. (continued) GRAVELLY SILT, fine to coarse gravel, subrounded, some sand, fine grained, trace clay, brown, dense, low plasticity, damp. SILTY CLAY, some sand, fine to coarse grained, dark brown, medium dense, medium plasticity, damp, laminated 1-2 mm layers of silt and day.	M CRICAT ATIA	TINT	Tec	Cli ck Coa	ent al Lin	nited			Borehole	No.: LC_BH_SRD2A
Inig Method Vibratory Sonic Short Description Water/NAPL Levels Short Level 2 Short Level 3 Short Level 2 Short L	JINC LAVA		Regional G			r Monite	oring			PAGE 2 OF 3
Sample interval Water Levels Water Level 2 NAPL NA	ling Method Vibratory Sonic ehole Dia. (m) 0.15		Ground Surface Elev. Top of Casing Elev. (m) ´	1197 n/a		384.63		Borehole Logged Date Drilled: Log Typed By:	By: AH 2021 11 20
GRAVEL, fine to coarse, subrounded, some sand, fine to coarse grained, brown, losse, damp, containing cobbles (75-190 mm), subrounded. (continued) GRAVELLY SILT, fine to coarse gravel, subrounded, some sand, fine grained, trace clay, brown, dense, low plasticity, damp, laminated 1-2 mm layers of silt and clay.	Sample Interval	▼ Water Lev		tigraphy Plot	iple Interval e Run	ple Number	w Count	•	indicated scale Reading outside indicated scale Soil Vapour	
GRAVELLY SILT, fine to coarse gravel, subrounded, some sand, fine grained, trace clay, brown, dense, low plasticity, damp. SILTY CLAY, some sand, fine to coarse grained, dark brown, medium dense, medium plasticity, damp, laminated 1-2 mm layers of silt and clay.	Soil Des	cription		Stra	San	San	Blo	₩ % 10	¹ 10² 10³ 10⁴	
NOTES	coarse grained, brown, loose, da (75-150 mm), subrounded. (con 15-150 mm),	e gravel, subroown, dense, loo coarse grained sand, s	unded, some ow plasticity, och		\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\			100		LC_MW_SRD2
NOTES					$\stackrel{\checkmark}{\nearrow}$			<u>:</u>		
			1	NOTE	S					

	CRIC. I ANIA	TINI	T	eck C	Client oal Lin	nited			Borehole	No.: LC_BH_SRD2A
 7))	SNC+LAVA	TIN	Regional		cation ndwate	er Monito	ring			PAGE 3 OF 3
Drilling Boreho	Contractor Mud Bay Drilling Co. Ltd. Method Vibratory Sonic ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5525984.	. (m̀) ´	n/a	7.216 ting: 6538	84.63	34	Project Number: Borehole Logged Date Drilled: Log Typed By:	686625 By: AH 2021 11 20 VL
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Lev ✓ Water Lev • NAPL ◇ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	overy	indicated scale	Solid PVC Slotted PVC Well Name 1: LC_MW_SRD2A
Deptl	Soil Des			Stratig	Sample Core F	Sample	Blow	% Recovery جَ	10 ² 10 ³ 10 ⁴	
21-	SANDY CLAY, fine to medium grocoarse, subrounded, some silt medium plasticity, moist. (continual BEDROCK.	, dark grey, m	some gravel, fine ledium dense,					80	Ÿ Ÿ Ÿ	SAND BENTONITE
23	Bottom of hole at 22.8 m.			V ///				:		(////
24-										
27-										
28-										
30			_							
2020 TO				NOT	ES					

<i>"</i>	SNC+LAVA	TIN	Te	eck C	Client oal Lin	nited			Borehole	No.: LC_BH_SRD2B
I)	SINC LAVA		Regional (cation ndwate	r Monite	oring			PAGE 1 OF 1
illing reho	Contractor Mud Bay Drilling Co. Ltd Method Vibratory Sonic ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5525982.	(m)	n/a	7.215 ing: 6538	384.74		Project Number: Borehole Logged Date Drilled: Log Typed By:	686625 By: AH 2021 11 20 VL
Deptri in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Lev □ Water Lev • NAPL □ NAPL	/el 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	P Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: LC_MW_SRD2B
ne	Soil Des	cription		Stra	San	San	Blo	₩ % 10	¹ 10 ² 10 ³ 10 ⁴	
0	SILTY SAND, fine grained sand plasticity, damp, contains organ	, trace clay, loc ic material.	ose, low		***			70		
1-	SAND, fine to medium grained, poorly graded, brown, loose, da	trace gravel, fi mp.	ne, subrounded,		$\stackrel{\checkmark}{\searrow}$					
2-	GRAVEL, fine to coarse, subrou coarse grained, brown, loose, d. (75-150 mm), subrounded.									
3-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1								80		BENTONITE
5-					>>>>>>>					
6	At 5.8 m - moist. Between 6.1 m and 9.1 m - trac	e silt.						50		
8-1										LC_MW_SRD2
9-1	Bottom of hole at 9.1 m.									SLOUGH
7										
10-			Γ	NOT	ES					

Elkview Operations Borehole Logs – Wells for Evaluation

	CRIC T ATTA		т		Client oal Lin	nited				Boreho	le No. :	EV_BH_EC3	A
?))	SNC+LAVA		Regional		cation ndwate		oring				PAGE	1 OF 6	
Drilling Boreh	g Contractor Mud Bay Drilling Co. Ltd. g Method Vibratory Sonic ole Dia. (m) 0.18 Slotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5506540	r. (m) ´	133 ²		340		Bo Da	oject Number: prehole Logged ate Drilled: g Typed By:	l By:	683032 TG 2021 09 16 VL	
Depth in Metres	Drilling Legend Sample Interval	Water/NA ▼ Water Le □ Water Le • NAPL ○ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Rea indicSoi	ding within cated scale ding outside cated scale lated scale lated scale lated with the cated scale lated scale la	s	olid PVC lotted PVC ame 1: EV_MW_EC3	3A
De	Soil Des	cription		Stra	San	San	Blo	& %	D ¹ 10	² 10 ³ 10	4	Artesian pressur	e: 47.5 psi
1-	SAND and GRAVEL, fine to coarcoarse gravel, subangular, some brown, roots and organics to 0.1 CLAYEY GRAVEL, subrounded silt, some sand, containing cobb At 0.9 m - grey.	e silt, containir 5 m. to subangular les, orange-br	ng cobbles, dark								# # # # # # # # # # # # # # # # # # #	# # # # # # # # # # # # # # # # # # #	
2 3 3 4 1 5 1 1 1 1 1 1 1 1	Below 5.2 m - laminations of silty medium grained sand comprisin and clay.	elow 5.2 m - laminations of silty sand and clean fine to edium grained sand comprising 5 to 10% within dominant silt id clay.									#######################################	######################################	7 in. steel casing
			NOTES Borehole diameter 0.18 m to 21.3 m, 0.15 m to EOH. Collar location preliminary (not surveyed).										

			Client Teck Coal Limited Location Regional Groundwater Monitoring						Borehole No. : EV_BH_EC3A			
?))	SNC+LAVA	LIN	Regional				oring	1		PAGE 2 OF 6		
Drilling Boreho	g Contractor Mud Bay Drilling Co. Ltd. y Method Vibratory Sonic ole Dia. (m) 0.18 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5506540		133 ²		340		Project Number: Borehole Logged Date Drilled: Log Typed By:			
Depth in Metres	Drilling Legend Sample Interval	▼ Water Lev ▼ Water Lev • NAPL ◇ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: EV_MW_EC3A		
	Soil Desc			ัง	ဖွဲ့ပ	ιχ		» 1	0 ¹ 10 ² 10 ³ 10			
11	Between 14.9 m and 16.0 m - sar moderate plasticity. At 17.4 m - 0.15 m lense of sand some clay, low plasticity. At 18.3 m - frequency of sand land	ned sand, grained sand,							### #### #### #### #### #### #### #### ####			
			NOTES Borehole diameter 0.18 m to 21.3 m, 0.15 m to EOH. Collar location preliminary (not surveyed).									

	CRIC. T ATTA	TINI	т		Client oal Lin	nited				Borehol	e No. :	EV_B	BH_EC3A
7))	SNC+LAVA		Regional		cation idwate	er Monito	oring				PAGE	3 OF (6
Drilling Boreho	g Contractor Mud Bay Drilling Co. Ltd. g Method Vibratory Sonic ole Dia. (m) 0.18 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5506540		133 ²		340		E	Project Number: Borehole Logged Date Drilled: Log Typed By:	Ву:	683032 TG 2021 09 VL	16
Depth in Metres	Drilling Legend Sample Interval	Water/NA ▼ Water Lev □ Water Lev ♠ NAPL ○ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	• Re	eading within dicated scale eading outside dicated scale soil Vapour (ppm)	s	olid PVC lotted PV	C /_MW_EC3A
De	Soil Des	cription		Stra	San	San	В	% 1	0 ¹ 1	10 ² 10 ³ 10 ⁴			
21-	SILT and CLAY, high plasticity, of SILT and SAND, fine grained sa sand, trace to some clay, grey, s	nd, some mec	lium grained								# ## # ## # ## # ## # ## # ## # ##	# # # # # # # # # # # # # # # # # # #	GROUT, 7 in. steel casing
23-											* # # # # # # # # # # # # # # # # # # #	#######################################	
25-											# # # # # # # # # # # # # # # # # # # #	#######################################	GROUT, 6 in. steel casing
28-											# # # # # # # # # # # # # # # # # # #	#######################################	
				NOT Bore Coll	ehole	diamete ation pr	er 0.´ elimi	18 m nary	to 21 (not	1.3 m, 0.15 m surveyed).	to EOF	l.	

	CRIC T ATIA	TTNT	т		Client oal Lin	nited				Borehol	e No.	: EV_	BH_	EC3A	\
>))	SNC+LAVA		Regional		cation ndwate	er Monito	oring	1			PAGE	4 OF	6		
Drilling Boreho	g Contractor Mud Bay Drilling Co. Ltd. y Method Vibratory Sonic ole Dia. (m) 0.18 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Electrop of Casing Electropy Northing: 5506540		133 ²		340			Project Number: Borehole Logged Date Drilled: Log Typed By:	Ву:	68303 TG 2021 (VL			
Depth in Metres	Drilling Legend Sample Interval	Water/NA ▼ Water Lev ⊽ Water Lev ♠ NAPL ◇ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	w Count	Recovery	•	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Well	Solid PV Slotted F Name 1:	PVC	W_EC3A	
De	Soil Des	cription		Strai	Sam	Sam	Blow	ৃ	1 ₀ 1	10 ² 10 ³ 10 ⁴					
30-	SILT and SAND, fine grained sar sand, trace to some clay, grey, sl	lightly cohesiv	e. (continued)								‡ ‡ ‡	# # # # # #	# # #		
31-	SAND, fine to medium grained, s laminations of silt and clay up to 10% within dominant sands.										+ + + + +	# # # # # # # # # # # #	# # # # #		
32	At 32.0 m - 0.20 m lense of claye grained sand, some silt, trace cogravel, low plasticity. Below 32.2 m - no gravel.										+ + + + + +	# # # # # # # # # # # #	# # # # #		
33-	Below 33.3 m - increasing silt.									# # # .	# # # # # # # #	# # # #			
34-	SILT and CLAY, trace gravel, fin trace sand, medium to coarse gradark brown to grey, dense, low to	ing cobbles,								# # # # # #	# # # # # # # # # # # # # # #	# # # #			
35	At 35.1 m - 0.20 m lense of fine to coarse grained sand, some silt, g										+ + + + + .	# # # # # # # # # # # #	# # # # #	GROUT, 6 in.	n. steel casing
36-	Below 36.2 m - no sand, no grave	el.									# # #	# # # # # # # # # # # # # # #	# # # #		
37	SAND, fine to coarse grained, so	ome silt to silty	, light brown.								# #	# # # #	# # #		
38-	SILT and CLAY, some gravel, fin sand, coarse, compact, light brow									# # #	# # # # # # # # # # # # # # # # # # # #	# # # #			
39	SILT and CLAY, some sand, fine gravel, fine, subangular, dark bro till-like. At 38.4 m - 0.25 m lense of fine t fine gravel, trace to some silt, da	se, low plasticity, ned sand, trace								+ + + + + + + +	# # # # # # # # # # # # # # # # # # #	+ + + + + + + +			
40	Below 39.6 m - some gravel, trac grained, containing cobbles.	o coarse		TE0				<u></u>		‡ ‡	# # #	###			
			NOT Bore Coll	ehole	diamete ation pre	er 0.1 elimi	18 m nary	to (no	21.3 m, 0.15 m ot surveyed).	to EC)H.				

	A) CRIC. I ANIA I IRI					nited			Borehole No. : EV_BH_EC3A					
SNC+LAVALIN			Location Regional Groundwater Monitoring						PAGE 5 OF 6					
Drillin Boreh	g Contractor Mud Bay Drilling Co. Ltd. g Method Vibratory Sonic ole Dia. (m) 0.18 Slotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Electrop of Casing Electropy Northing: 5506540		133 133		340		Project Number: Borehole Logged Date Drilled: Log Typed By:	By: T	83032 'G 021 09 16 'L	6		
Depth in Metres	Drilling Legend Sample Interval	PL Levels rel 1 rel 2	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Slo	lid PVC	MW_EC3A	.		
41-42-43-44-44-44-44-44-44-44-44-44-44-44-44-	Soil Description SILT and CLAY, some sand, fine to coarse grained, trace gravel, fine, subangular, dark brown, very dense, low plasticity, till-like. (continued) SAND and GRAVEL, subrounded to subangular gravel, some silt, dark brown, loose. CLAYEY, SANDY GRAVEL, fine to coarse gravel, subrounded to subangular, loose, low plasticity. SILT and CLAY, trace sand, fine to coarse grained, trace gravel, fine, subrounded to subangular, dark grey, very dense, low plasticity, slow drilling. At 41.1 m - sandy, gravelly for 0.03 m. Between 44.8 m and 45.1 m - containing cobbles. Below 46.3 m - increased coarse fractions, some sand, fine to coarse grained, some gravel, fine to coarse, containing cobbles.							6 100	1 102 103 10	*#####################################	+++++++++++++++++++++++++++++++++++++++	— GROUT, 6 is	n. steel casing	
50-				NOT Bore Coll	ehole	diamete	er 0.′ elimi	18 m t	o 21.3 m, 0.15 m not surveyed).	to EOH.	# #			

	O CRIC. I AVAITAL					Client Feck Coal Limited					Borehole No. : EV_BH_EC3A					
*) SNC+LAVALIN			Location Regional Groundwater Monitoring							PAGE 6 OF 6						
Drilling Boreho	Contractor Mud Bay Drilling Co. Ltd. Method Vibratory Sonic sle Dia. (m) 0.18 otted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5506540		133 ²		40			Project Number: Borehole Logged Date Drilled: Log Typed By:	Ву:	68303 TG 2021 VL	32 09 16			
Depth in Metres	Drilling Legend Sample Interval	Water/NAPL Levels ▼ Water Level 1 □ Water Level 2 ♠ NAPL ○ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	Recovery	•	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	dicated scale leading outside ldicated scale Soil Vapour Soil Vapour Soil Vapour Soil Vapour Soil Vapour Soil Vapour		V_EC3A			
ď	Soil Description			Stra	San	San	Blo	િ	1 ₀ 1	10 ² 10 ³ 10 ⁴						
51-	SILT and CLAY, dark brown, der drilling than previous material. (c Below 50.3 m - low plasticity. Below 51.2 m - trace sand, fine to coarse, subrounded to subangular	ontinued) o coarse, trac									+++++++	#######################################	# # # #	GROUT, 6 in. steel casin		
52-	GRAVELLY SILT and CLAY, fine subangular, some sand, fine to condense. SAND, fine grained, some silt, but laminations, no plasticity.	coarse grained	, dark brown,								+ + + + + + + +	# # # # # # # # # # # # # # # # # #	# # # #	GROUT, no steel casing		
54	SILTY SAND and GRAVEL, sub- containing cobbles, grey, reducir Below 54.0 m - gravel, fine to co- to coarse grained sand, some sil Below 54.3 m - gravel, fine to co- subangular, some sand, coarse g- fine to medium grained, containing be washed out. At 54.9 m - Artesian flow encoun	ng fine fraction arse, subangu it. arse, subroun grained, trace ng cobbles, fir itered after so	downwards. llar, sandy, fine ded to silt, trace sand, ie fraction may nic core barrel								# # # # # #	# # # # # # # # # # # # # # # # # # # #	#	GROUT and pre-packed screen		
56	pulled. Shut-in gauge pressure o before installing well. Flow of 1.1 and increased after one 10 ft run (highest flow rates not measured Produced water included silt and grained). Bottom of hole at 54.9 m.	L/s measured of casing was I and on the or	d in cased hole, s removed der of 10 L/s).													
57-																
58-																
60																
					ehole					21.3 m, 0.15 m ot surveyed).	to EO)H.				



EV_MW_EC3B CLIENT: Teck Coal Ltd. LOGGED BY: DVB **PSD SPT Blow Count** Sample Lithologic Symbol Vane Shear Test Well Installation Energy Efficiency (%) Gravel / Sand / Silt / Clay (%) No. Silt/Clay Gravel Organics Recovery Ξ Depth (ft) Sand O Boulder/Cobbles No Recovery ▼ S_u - Peak ∇S_u - Residual ■ Moisture Content (%) (%) Grab
SPT
LPT
Shelby **Backfill Details** Plastic Limit
Liquid Limit (kPa) N Value 25 50 75 100 0 10 10 10 10 10 10 USCS 9 20 8 9 Soil Description 20 40 Stick-up: 1.18m 0 OL/OH; Organics 00 - 3 GRAVEL (GW-GM) - few cobbles, few 0 ĜM-GW sand, few fines, very loose, moist, well-graded, fine sand to coarse 24270 0 gravel, subrounded; 00 0 3/0/1 2 - 8 24272 3 - 10 11 24273 LEAN CLAY (CL)* - very soft, moist to wet, low plasticity, very dark grayish - 12 13 brown (10YR 3/2); 0/0/67/33 24274 14 15 16 24275 0/1/2 17 18 19 24276 20 1/1/0 - 21 24277 LEAN CLAY (CL)* - trace sand, very soft, moist to wet, low plasticity, very 22 dark grayish brown (10YR 3/2); - 23 24 25 26 8 LEAN CLAY (CL)* - little sand, very 27 soft, moist to wet, poorly-graded, fine sand to medium sand, low plasticity, 28 very dark grayish brown (10YR 3/2); 0/29/54/17 24278 29 30 31 32 33 40 34 35 0/0/2 0/7/64/29 24280 36 82.8% 37 24281 ĊĹ 38 39 40 Well Installation Details *Description inferred after reviewing laboratory results

Bentonite

PVC

☐ End Cap Slough



PROJECT: Erickson Dam site investigation

DRILLHOLE ID: SRK21-ED-BH04

LOCATION: Elkview Operations

660842.3 E 5506516.4 N

04-Sep-21 TO: 06-Sep-21

PVC

Screen

NAD83 UTM Zone 11N

Page 2 of 3

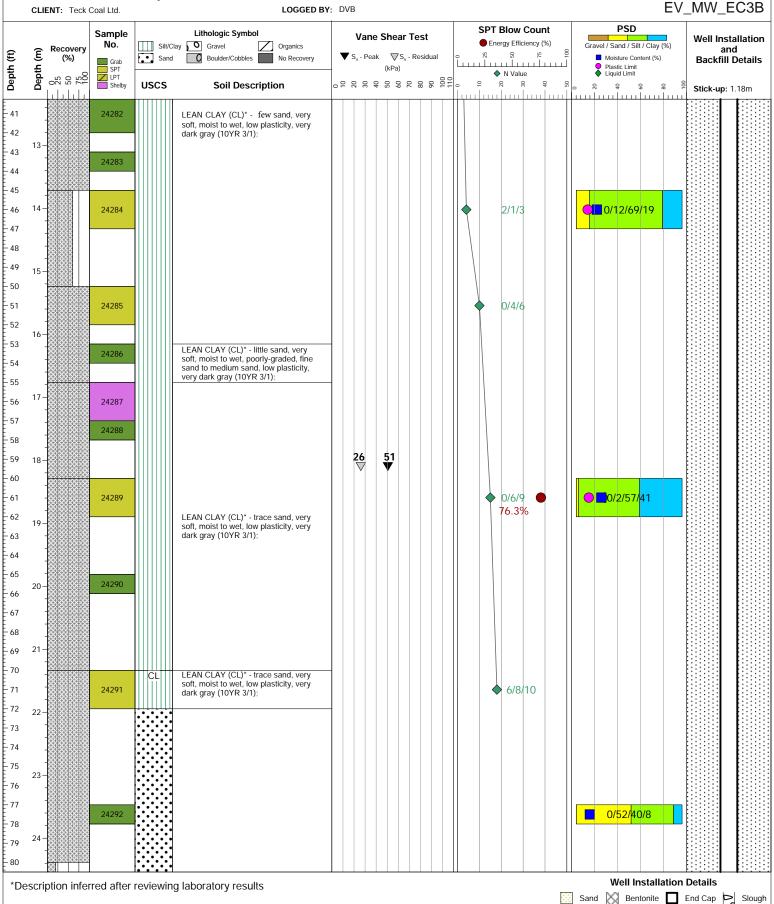
COORDINATES:

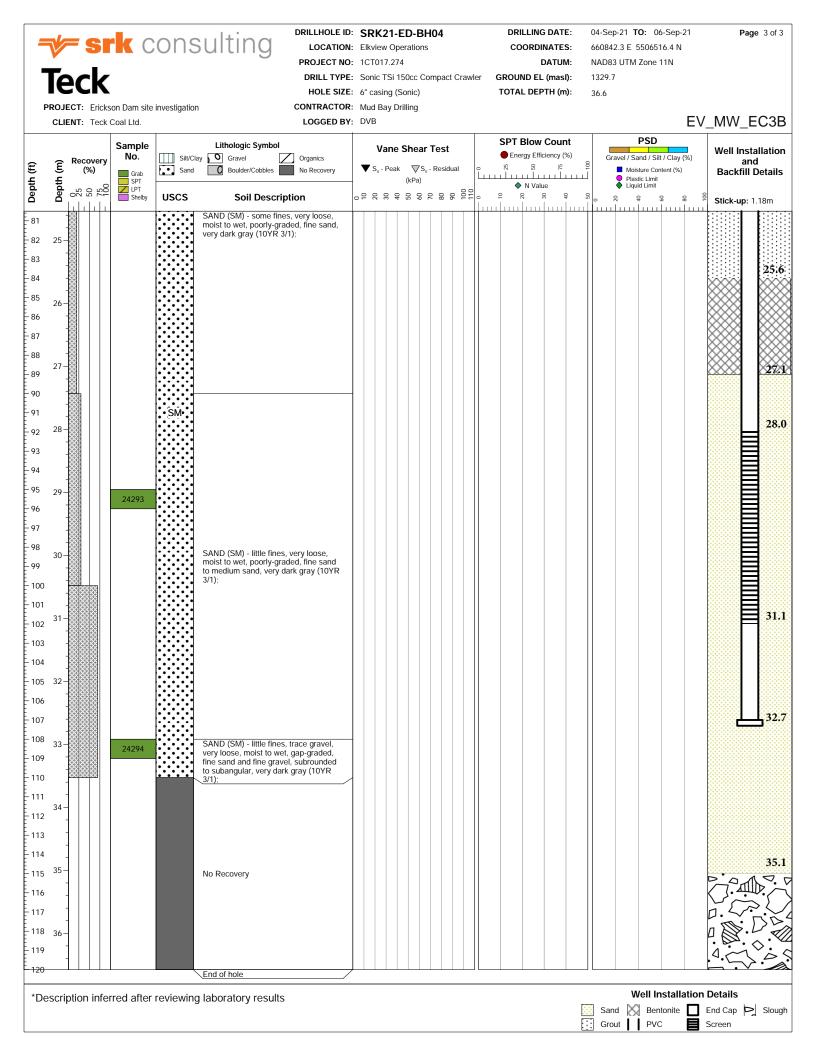
DRILLING DATE:

DATUM:

DRILL TYPE: Sonic TSi 150cc Compact Crawler GROUND EL (masl): 1329.7 TOTAL DEPTH (m): HOLE SIZE: 6" casing (Sonic) 36.6

CONTRACTOR: Mud Bay Drilling





	A) CRIC. I ATTAILED					Client Feck Coal Limited					Borehole No. : EV_BH22_RCSgw_1A					
SNC+LAVALIN			Location EVO Gate and Bodie Creek							PAGE 1 OF 3						
Drilling Boreho	g Contractor Forged Drilling g Method Vibratory Sonic ole Dia. (m) 0.15 Slotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev Northing: 5509281.	. (m) ´	116 116	2 07 28 1.443 2.309 116 ting: 655			Bo Da	oject Number: rehole Logge te Drilled: g Typed By:		692054 MTB 2022 07 16 MF	3			
Depth in Metres	Drilling Legend Sample Interval Vibrasonic Water/NAPI ▼ Water Leve NAPL NAPL		vel 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	Recovery	Rea indic	ding within cated scale ding outside cated scale Vapour ppm)	Solid PVC Slotted PVC Well Name 1: EV_MW22_RC					
ă	Soil Description			Stra	Sar	San	В	~	1 ₀ 0 ¹ 10	² 10 ³ 10	21					
0-	SAND and GRAVEL (FILL), fine to coarse gravel, subangular to a silt, brown, loose, wet. SAND (FILL), fine to coarse grain coarse, subangular-angular, som	ngular, well g	graded, some					30								
2-	present.		. ,			1A-01		50								
4	GRAVEL (NATIVE), fine to coars fine to coarse grained, trace silt, brown, loose, wet.					1A-02					.					
6-	From 6.1 m to 6.4 m - coal dust p	present.						70								
7	SAND and GRAVEL, fine to coar coarse gravel, subrounded, well loose, wet.	graďed, some	e silt, brown,			1A-03										
9-	SANDY GRAVEL, fine to coarse coarse grained sand, well graded wet. SAND and GRAVEL, fine to coar coarse gravel, subrounded, well loose, wet.	d, some silt,	brown, loose,					90								
				NOT Bold		le deno	otes s	ampl	e analy	zed.						

•	ONIC TANA	TTAT	т		lient oal Lim	ited			E	Borehole	No. : I	EV_BH	H22_RCSgw_1A
<i>)))</i>	SNC+LAVA	LIN	EVO (cation nd Bod	ie Cree	k				PAG	SE 2 C	DF 3
illing reho	Contractor Forged Drilling Method Vibratory Sonic le Dia. (m) 0.15 otted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Electrop of Casing Electron Northing: 5509281.	(m)	1161 1162	07 28 .443 .309 116 ng: 6558			B D	roject Numb orehole Log ate Drilled: og Typed By	ged By:	692 MTE 2022 MF	
Deputi in ivieti es	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Le □ Water Le • NAPL □ NAPL	vel 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count		• Rea indi	ading within icated scale ading outsid- icated scale il Vapour (ppm)	-	1	PVC d PVC : EV_MW22_RCSgw_
Š	Soil Des	cription		Stra	San	San	В	% 10	D ¹ 10	0 ² 10 ³	10 ⁴		
0-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1	SANDY GRAVEL, fine to coarse coarse grained sand, well grade wet.					A-04							
+	SAND, fine to medium grained s subrounded, poorly graded, trace					A-05							
3-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1	SANDY GRAVEL, fine to coarse coarse grained sand, trace silt, I					A-06		80					
5-1-1-1-1-1-1-6-1-1								80					BENTONITE
7-	At 16.5 m - brown.												
	SAND, fine grained, some silt, d wet.	ark brown, me	edium dense,			A-07							
8 = 1	SILT, some sand, fine grained, omoist.	dark brown, fir	m, low plasticity,		1	A-08		60					
9-	SILT and GRAVEL, fine to coars subrounded, some sand, fine to medium dense, moist.					A-09							BENTONITE/CUTTIN
0	SAND and GRAVEL, fine to coa subangular to subrounded, some dense, wet.	rse grained sa e silt, dark bro	and, fine gravel, own, medium									****	SAND
				NOT Bold		e deno	tes s	ample	e anal	yzed.			

	CRIC. I ANIA	TINI	7		Client oal Lin	nited			Во	rehole N	o.: EV_BH22_RCSgw	_1A
7))	SNC · LAVA	LIIN	EVO		cation Ind Boo	die Creel	k				PAGE 3 OF 3	
Drilling Boreho	Contractor Forged Drilling Method Vibratory Sonic ble Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface El Top of Casing Elev Northing: 5509281	/. (m̀) ´	116 116	2 07 28 1.443 2.309 116 ting: 6558			Bore Date	ect Number: hole Logged Drilled: Typed By:	692054 By: MTB 2022 07 16 MF	
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NAI ▼ Water Le ⊽ Water Le • NAPL ◇ NAPL	vel 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count		indicaReadiindicaSoil \	ng within ted scale ng outside ted scale /apour om)	Solid PVC Slotted PVC Well Name 1: EV_MW22_RC	Sgw_1A
Det	Soil Desc	cription		Strat	Sam	Sam	Blo	% 10) ¹ 10 ²	10 ³ 10 ⁴		
21-	SAND and GRAVEL, fine to coar subangular to subrounded, some dense, wet. (continued) BEDROCK, siltstone, dark grey.	se grained sa e silt, dark bro	and, fine gravel, wn, medium			1A-10					EV_MW22_RI	
24	Bottom of hole at 24.1 m.					1A-11				;		
25												
				NO1 Bolo	Γ ES I samp	le deno	tes s	ample	analyz	ed.		

	ONIO T AT/A	T T T T	T		Client oal Lin	nited			Borehole N	lo. : EV_	BH22_R	CSgw_1B
*))	SNC+LAVA	LIN	EVO C		cation nd Boo	die Cree	k			PAGE 1	OF 2	
Drilling Boreho	g Contractor Forged Drilling g Method Hydrovac/Vibratory Sonic ble Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5509281.0	(m) ´	1161 1162	2 07 18 1.535 2.394 116 ting: 6559			Project Number: Borehole Logged Date Drilled: Log Typed By:	d By: N	92054 ИТВ 2022 07 17 ИF	
Depth in Metres	Drilling Legend Sample Interval Vac. Extraction Vibrasonic	Water/NA ▼ Water Le ▽ Water Le ◆ NAPL ◇ NAPL	vel 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Sid	olid PVC otted PVC	W22_RCSgw_1A
D _O	Soil Desc	cription		Stra	Sarr	Sam	Blo	₩ %	0 ¹ 10 ² 10 ³ 10	<u> </u>	7	
1-	SAND and GRAVEL (FILL), fine to coarse gravel, subangular to a silt, brown, loose, dry. SAND (FILL), fine to coarse grain coarse, subangular to angular, so coal present.	ngular, well o	graded, some									
2-								60				
5	GRAVEL (NATIVE), fine to coars fine to coarse grained, trace silt, brown, loose, dry.											— BENTONITE
7-	At 6.0 m - wet.							20		Y		
9-	SANDY GRAVEL, fine to coarse coarse grained sand, well graded wet. SAND and GRAVEL, fine to coar coarse gravel, subrounded, well loose, wet.	d, some silt,	brown, loose,					80				— BENTONITE/CUTTINGS — SAND
				NOT Bold		le deno	tes s	ample	e analyzed.			

	CRIC. I ANIA	TINI	Т		Client oal Lin	nited			Bor	ehole N	o. : EV_BH22_RCSgw_1B
7))	SNC · LAVA	LIIN	EVO (cation nd Boo	die Creel	k				PAGE 2 OF 2
Drilling Boreho	Contractor Forged Drilling Method Hydrovac/Vibratory Sonic Dia. (m) 0.15 Ottled Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Electrop of Casing Electron. Northing: 5509281.	(m)	116 ²	2 07 18 1.535 2.394 116: ting: 6559			Borel Date	ct Number: nole Logged Drilled: Typed By:	692054 I By: MTB 2022 07 17 MF
Depth in Metres	Drilling Legend Sample Interval Vac. Extraction Vibrasonic	Water/NA ▼ Water Le ⊽ Water Le • NAPL △ NAPL	vel 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	indicate Readin		Solid PVC Slotted PVC Well Name 1: EV_MW22_RCSgw_1B
Dek	Soil Desc	cription		Strat	Samı	Samı	Blov	% 10	¹ 10 ²	10 ³ 10	•
10-	SANDY GRAVEL, fine to coarse coarse grained sand, well graded wet. SAND, fine to medium grained, t poorly graded, trace silt, brown,	d, some silt,	brown, loose,								EV_MW22_RCSgw_1B
12-	Bottom of hole at 11.9 m.	loose, wet.		****				:	:		BENTONITE
13- 14- 15- 16- 17- 19-											
				NOT Bold	T ES I samp	le denot	tes s	ample	analyze	ed.	

	ONIO T AT/A		To		Client oal Lin	nited			Borehole N	lo. : EV _	_BH22_RCSgw_1C
*))	SNC+LAVA	LIN	EVO G		cation nd Boo	die Cree	k			PAGE ²	1 OF 1
Drilling Boreh	g Contractor Forged Drilling g Method Vibratory Sonic ole Dia. (m) 0.15 Slotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5509279.	(m)	1161 1162	2 07 14 1.516 2.423 116 ting: 6559			Project Number: Borehole Logged Date Drilled: Log Typed By:	d By:	692054 MTB 2022 07 17 MF
Depth in Metres	Drilling Legend Sample Interval Vac. Extraction Vibrasonic	Water/NA ▼ Water Le □ Water Le • NAPL □ NAPL	vel 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	sı	iolid PVC slotted PVC me 1: EV_MW22_RCSgw_1
De	Soil Desc	cription		Stra	Sam	Sam	Blo	₩ 8	10 ¹ 10 ² 10 ³ 10	14	П
2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	SAND and GRAVEL (FILL), fine to coarse gravel, subangular to a silt, brown, loose, dry. SAND (FILL), fine to coarse grain coarse, subangular to angular, scoal present. GRAVEL, fine to coarse, subrout coarse grained, trace silt, light be sometimes of the substance of the subst	to coarse gra angular, well of ned, some gra ome silt, blace	avel, fine to k, loose, dry,			σ		80	101 102 103 10		BENTONITE/CUITING BENTONITE/CUITING SAND BENTONITE
10				NOT Bold	ES samp	le deno	tes s	ampl	e analyzed.		

					NA	<u> </u>				
~ 1)	SNC+LAVA	TINI	Te	eck C	Client oal Lin	nited			Borehole N	No. : EV_BH22_BCgw_1A
7 //	SINC*LAVA	LII	EVO G		cation nd Boo	die Cree	k			PAGE 1 OF 4
Drilling Boreho	Contractor Forged Drilling Method Vibratory Sonic le Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Ele Top of Casing Elev. Northing: 5509655.0	(m)	1150 1154	2 07 14 3.260 4.178 115 ting: 655		72	Project Number: Borehole Logged Date Drilled: Log Typed By:	692054 I By: MTB 2022 07 13 MF
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Le ⊽ Water Le • NAPL ◇ NAPL	evel 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count		Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: EV_MW22_BCgw_1A
De	Soil Desc	cription		Stra	Sam Core	Sam	Blo	ਔ %10	0 ¹ 10 ² 10 ³ 10	
1-	SAND, fine to coarse grained, so subrounded, trace silt, dark brow present to 0.5 m.	me gravel, fii n, loose, dry,	ne to coarse, organics		\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\			50		
3-	GRAVEL, fine to coarse, subrour fine to coarse, trace silt, trace co					1A-01		10		BENTONITE
6	SAND and GRAVEL, fine to coar coarse gravel, subrounded, well loose, wet.	se grained s: graded, some	and, fine to e silt, brown,			1A-02		90		
9-	GRAVEL, fine to coarse, subang sand, fine to coarse grained, trace	ular to subroi e silt, brown,	unded, some loose, wet.					70		
- 10-				NOT Bold		le deno	otes s	ample	analyzed.	

				Client Coal Lir				Borehole N	lo. : EV_BH22_BCgw_1A
•))	SNC+LAVA	LIN		ocation		ek			PAGE 2 OF 4
Drilling Boreho	Contractor Forged Drilling Method Vibratory Sonic ole Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Elev. (m) Top of Casing Elev. (m) Northing: 5509655.034) 115 115	2 07 14 3.260 4.178 115 ting: 655		'2	Project Number: Borehole Logged Date Drilled: Log Typed By:	692054 By: MTB 2022 07 13 MF
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Le ⊽ Water Le • NAPL ◇ NAPL	vel 1 <u>5</u>	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	indicated scale	Solid PVC Slotted PVC Well Name 1: EV_MW22_BCgw_1.
De	Soil Desc	ription	Strat	Sam	Sam	Blo	∞ 8 10¹	10 ² 10 ³ 10 ⁴	
11	GRAVEL, fine to coarse, subangus and, fine to coarse grained, trace (continued)	ular to subrou e silt, brown,	unded, some loose, wet.		1A-03		50		
13	SILTY GRAVEL, fine to coarse gr subangular, some sand, fine grain				1A-04		60		—— BENTONITE
16-	SILTY SAND and GRAVEL, fine to coarse gravel, subrounded to swet.	o coarse gra subangular, b	ined sand, fine prown, loose,		1A-05				
19-	SILTY GRAVEL, fine to coarse gr subangular, some sand, fine grain	ravel, subrou ned, brown, l	nded to oose, wet.		1A-06		40		BENTONITE/CUTTING EV_MW22_BCgw_1
-*				TES d samp	ole dend	otes s	ample	analyzed.	

A) CNIC.T ATTA	TENT	Tec		lient al Lim	ited			Borehole N	lo. : EV_BH22_BCgw_1A
SNC+LAVA	LLIN	EVO Ga		cation nd Bod	ie Cree	k			PAGE 3 OF 4
Orilling Contractor Forged Drilling Orilling Method Vibratory Sonic Borehole Dia. (m) 0.15 Pipe/Slotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Elev. Top of Casing Elev. (i Northing: 5509655.03	m)	1153 1154	07 14 .260 .178 115 ng: 6553		7 2	Project Number: Borehole Logged Date Drilled: Log Typed By:	692054 By: MTB 2022 07 13 MF
Drilling Legend Sample Interval Vibrasonic Soil Des	Water/NAI ▼ Water Ler ▼ Water Ler ◆ NAPL ◇ NAPL	vel 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: EV_MW22_BCgw_1
Soil Des Soil Des SILTY GRAVEL, fine to coarse subangular, some sand, fine gr. (continued) SILTY SAND, fine to coarse gravel, some silt, brown dense, wet. SILTY GRAVEL, fine to coarse gravel, some silt, brown dense, wet. SILTY GRAVEL, fine to coarse some sand, fine grained, dark by some sand, fine grained, dark grey	gravel, subrour ained, brown, lained sand, brown arse grained sand, brown grained, brown gravel, subang brown, dense, v	wn, loose, wet. wn, loose, wet. ind, fine to e, wet. , medium			A-07 A-09		90	0 10 10 10 10	SAND BENTONITE

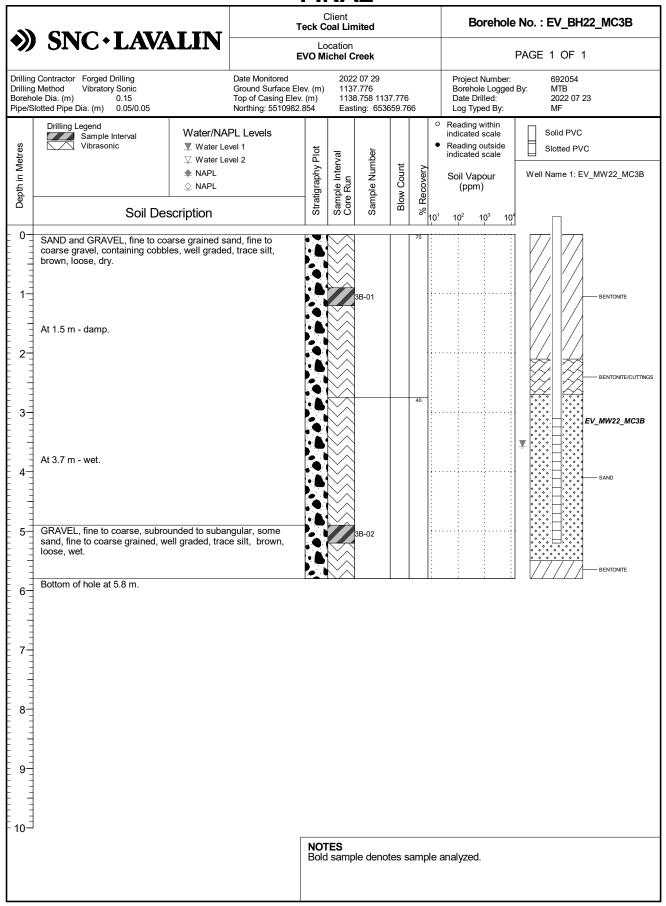
			-								
71)	SNC+LAVAL	TN	Te	eck C	Client oal Lin				Borehole N	lo. : EV_BH22_BCgw	_1A
~ //	SINCYLAVAL	TT.	EVO G	Lo Bate a	cation nd Boo	die Cree	k			PAGE 4 OF 4	
Drilling Borehol	Contractor Forged Drilling Method Vibratory Sonic e Dia. (m) 0.15 otted Pipe Dia. (m) 0.05/0.05	Ground Top of	Monitored d Surface Ele Casing Elev. ng: 5509655.0	(m)	1153 1154	2 07 14 3.260 4.178 115 ting: 655		7 2	Project Number: Borehole Logged Date Drilled: Log Typed By:	692054 By: MTB 2022 07 13 MF	
Depth in Metres	Vibrasonic Vibrasonic	ater/NAPL Lev Water Level 1 Water Level 2 NAPL NAPL	vels	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	Recovery	indicated scale	Solid PVC Slotted PVC Well Name 1: EV_MW22_E	3Cgw_1A
Pe	Soil Descrip	tion		Stra	Sam Core	Sam	Blo	₩ 101	10 ² 10 ³ 10		
30						1A-10				1	E
<u> </u>	Bottom of hole at 30.2 m.										
31											
32-											
33-											
34-											
35											
36											
37-											
Ē =											
38											
39-											
40											
				NOT Bold	ES samp	le deno	tes s	ample	analyzed.		

	CRIC. I ANIA	TINI	Т		Client oal Lin	nited			Borehole N	No. : EV_BH22_BC	gw_1B
7))	SNC+LAVA	LIIN	EVO (cation Ind Boo	die Creel	(PAGE 1 OF 1	
Drilling Boreho	Contractor Forged Drilling Method Vibratory Sonic Dle Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Electrop of Casing Electron Northing: 5509656.	. (m) ´	115 115	2 07 14 3.342 4.150 1154 ting: 6553		52	Project Number: Borehole Logged Date Drilled: Log Typed By:		
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Le ⊽ Water Le • NAPL NAPL	vel 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	Recovery	Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: EV_MW	22_BCgw_1B
De	Soil Des	cription		Strat	Sam	Sam	Blo	₩ %10	0 ¹ 10 ² 10 ³ 10		
1-	SAND, fine to coarse grained, so subrounded, trace silt, dark brow present to 0.5 m.	ome gravel, fii vn, loose, dry,	ne to coarse, organics					30		V	V22_BCgw_1B
3-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1	GRAVEL, fine to coarse, subrour fine to coarse grained, trace silt, loose, wet. SAND and GRAVEL, fine to coar coarse gravel, subrounded, well cobbles, brown, loose, wet.	containing co	obbles, brown,			1B-01		20		SAN	ID ITONITE
7	Bottom of hole at 5.8 m.			69							
				NOT Bolo	Γ ES I samp	le denot	es s	ample	analyzed.		

			Г	IA	<u>AL</u>				
	CRIC. T ATTA	T TR T	Teck	Clien Coal L	t Limited			Borehole	No. : EV_BH22_MC2C
*))	SNC · LAVA	LIN		ocatio	on I Creek				PAGE 1 OF 3
Drilling Boreho	Contractor Forged Drilling Method Vibratory Sonic ble Dia. (m) 0.15 lotted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Elev. (m Top of Casing Elev. (m) Northing: 5510511.068) 1 ⁻	022 07 15 147.018 147.947 11 asting: 654			Project Number: Borehole Logged Date Drilled: Log Typed By:	631283 By: MTB 2022 07 15 MF
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Le ⊽ Water Le • NAPL ○ NAPL	vel 1 <u>5</u>	Sample Interval	Core Run Sample Number	Blow Count		Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm)	Solid PVC Slotted PVC Well Name 1: EV_MW22_MC2C
ă	Soil Desc	ription	Stra	San	Sam	Blo	% 10	0 ¹ 10 ² 10 ³ 10 ⁴	П
2-	SAND and GRAVEL, fine to coarse coarse gravel, angular, well grade dry, coal present. At 3.1 m - wet.	ed, some silt	and, fine to		2A-01		50		BENTONTE
8-	coarse grained, brown, loose, nor At 7.3 m - gravel, subangular. At 8.8 m - light brown.	n-plastic, we	t.		2A-02		90		
			NC Bo	OTES Id sar	mple dend	otes s	ample	analyzed.	

				С	lient al Lim				Borehole No. : EV_BH22_MC2C
+))	SNC+LAVA	LIN	EVO		cation	reek			PAGE 2 OF 3
Drilling Boreho	Contractor Forged Drilling Method Vibratory Sonic le Dia. (m) 0.15 otted Pipe Dia. (m) 0.05/0.05		Date Monitored Ground Surface Elev. Top of Casing Elev. (n Northing: 5510511.06	n) ĺ	1147 1147	2 07 15 7.018 7.947 114 ing: 654			Project Number: 631283 Borehole Logged By: MTB Date Drilled: 2022 07 15 Log Typed By: MF
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Le ▽ Water Le ◆ NAPL ◇ NAPL		Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count		Reading within indicated scale Reading outside indicated scale Soil Vapour (ppm) Solid PVC Slotted PVC Well Name 1: EV_MW22_MC2C
	Soil Desc	ription		Str	Sa	Sa	В	% 10	10 ¹ 10 ² 10 ³ 10 ⁴
11-	GRAVEL, fine to coarse, subroun coarse grained, brown, loose, nor SILT and SAND, fine to medium of	n-plastic, we	t. (continued)						
13-	SILT and SAND, fine grained, bro non-plastic, wet.	wn, medium	dense,			2A-03		100	
15-	GRAVEL, fine to coarse, subroun sand, fine to coarse grained, brow					2A-04		70	BENTONITE
16 - 17 - 17 - 1									
18 - 19 - 19 - 19 - 19 - 19 - 19 - 19 -	At 19.0 m - light brown.					2A-05		30	
20-				NOTI Bold		le deno	tes s	ample	le analyzed.

Client Teck Coal Limited			nited		Borehole No. : EV_BH22_MC2C					
'))	SNC+LAVA	LIN	Location EVO Michel Creek			PAGE 3 OF 3				
rilling Contractor Forged Drilling Date Monitored rilling Method Vibratory Sonic Ground Surface Ele orehole Dia. (m) 0.15 Top of Casing Elev pe/Slotted Pipe Dia. (m) 0.05/0.05 Northing: 5510511		. (m) 1147.947 1147.018				Project Number: 631283 Borehole Logged By: MTB Date Drilled: 2022 07 15 Log Typed By: MF				
Depth in Metres	Drilling Legend Sample Interval Vibrasonic	Water/NA ▼ Water Le □ Water Le • NAPL ○ NAPL	vel 1	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	indicated scale	Solid PVC Slotted PVC Well Name 1: EV_MW22_MC20
ട്	Soil Desc	ription		Stra	San	San	Blo	₩ 10	10 ² 10 ³ 10 ⁴	
221	GRAVEL, fine to coarse, subrounsand, fine to coarse grained, browns and, fine to coarse, subrouncoarse grained, well graded, trace	vn, loose, we	et. (continued) and, fine to					80		BENTONITE BENTONITE/CUTT BEV_MW22_MC20
4	At 24.0 m - light brown. SAND and GRAVEL, fine to coars			ু নু		2A-06				SANU SANU
6-	coarse gravel, subrounded, well g loose, wet.	iraded, some	e silt, brown,			2A-07				— BENTONITE/SLOL
- - - -7:7	SILT and GRAVEL, fine to coarse sand, fine grained, brown, mediur	gravel, subi n dense, we	rounded, some t.			2A-08				
1	Bottom of hole at 27.2 m.							l:_	. , , , , , , , , , , , , , , , , , , ,	
28-			_							
				NOT Bold		ole denc	ites s	ample	analyzed.	



Appendix XV

Groundwater Monitoring Study Design Phase II LCO Monitoring Program Proposal Permit No. 107517 (and amendments)





Groundwater Monitoring Study Design Phase II LCO Monitoring Program Proposal

Permit No. 107517 (and amendments)

Line Creek Operations Elk Valley, British Columbia

March 24, 2023

SNC-Lavalin Project: 694450





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The findings, conclusions and recommendations in this report (i) have been developed in a manner consistent with the level of skill normally exercised by professionals currently practicing under similar conditions in the area, and (ii) reflect SNC-Lavalin's best judgment based on information available at the time of preparation of this report. No other warranties, either expressed or implied, are made as to the professional services provided under the terms of our original contract and included in this report. The findings and conclusions contained in this report are valid only as of the date of this report and may be based, in part, upon information provided by others. If any of the information is inaccurate, new information is discovered, site conditions change or standards are amended, modifications to this report may be necessary. The results of this assessment should in no way be construed as a warranty that the subject site is free from any and all environmental impact.

Any soil and rock descriptions in this report and associated logs have been made with the intent of providing general information on the subsurface conditions of the site. This information should not be used as geotechnical data for any purpose unless specifically addressed in the text of this report. Groundwater conditions described in this report refer only to those observed at the location and time of observation noted in the report.

This report must be read as a whole, as sections taken out of context may be misleading. If discrepancies occur between the preliminary (draft) and final version of this report, it is the final version that takes precedence. Nothing in this report is intended to constitute or provide a legal opinion.

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P:\CP\TECK COAL\SPO(635544\5.0 DEL\5.3 FINAL\2022 RGMP SSGMP ANNUAL\\APP XV - LCO PHASE II MINE AREA STUDY DESIGN\20230327_635544_APP XV_GWPROPO_FINAL.DOCX

Table 1-1: Summary of Line Creek Operation Mine Phase II GWMP Permit Requirements and Report

In-Text Tables





Introduction

This report is a groundwater monitoring program proposal specifically designed for Teck Coal Limited's (Teck) Line Creek Operation (LCO) Phase II mine area. The groundwater monitoring program proposal, which is also referred to as a Study Design, presents the proposed program intended to characterize the groundwater resource (including quality, quantity, flow characteristics, hydraulic connectivity to the affected aquifer(s) and relationship to the surface water system) and identify any potential impacts to groundwater from mining-related activities (and if identified, quantify the impacts).

Phase II Operations 1 1

LCO is a metallurgical coal mine located in the Elk Valley 25 km north of Sparwood, British Columbia in the Dry Creek, Line Creek and Elk River watersheds. Coal is recovered through traditional open pit mining techniques. The LCO Phase II footprint, which is 6 km long by 3 km wide, is presented in Drawing LC-01 of Appendix VII. The Phase II area is in the LCO Dry Creek watershed on the north side of the LCO C-129 permitted mining area. The Dry Creek watershed includes a narrow valley that drains to the north and discharges to Fording River, southeast and upstream of Teck's Greenhills Operation (GHO). In the headwaters of the watershed, some former stream features are buried by waste rock and now act as rock drains. Two pits are mined: the Burnt Ridge North on the west side of the Phase II area and Mount Michael on the east side of the Phase II area. Spoil piles and various infrastructure required for mining have been or are undergoing construction. To meet surface water quality objectives for Dry Creek, the Dry Creek Water Management System was constructed in the upper portion of the valley near the confluence of Dry Creek East Tributary and LCO Dry Creek. The Dry Creek Water Management System includes a head pond, diversion structure, two sedimentation ponds, piping, and calcite treatment. The sedimentation ponds are double lined and have a leak detection system.

Objective and Scope of Work 1.2

The objective of this work is to propose an appropriate Study Design for 2023, compliant with requirements set out under Section 8.2.2.1 of the Amended Permit 107517 (current as of December 19, 2022).

To meet this objective, this report was prepared in accordance with best practices for proposed groundwater monitoring study designs, as outlined in the Water and Air Baseline Monitoring (Ministry of Environment, 2016). This study design:

- 1. Reviews and summarizes existing groundwater information, including groundwater surface water interactions.
- 2. Presents a network of monitoring locations to adequately characterize the Dry Creek area to understand and characterize impacts to groundwater from mining-related activities.
- 3. Provides a summary of how groundwater quantity and quality has been assessed and a summary of the quarterly data since monitoring inception.

Table 1-1, presented below, provides the requirements listed in Permit 107517, pertaining to Section 8.2.2.1. In addition, Table 1-1 provides the location of the required information within the 2022 annual groundwater monitoring program summary (Appendix VII).





Table 1-1: Summary of Line Creek Operation Mine Phase II GWMP Permit Requirements and Report Sections

		Relevant Report Sections LCO Phase II Dry Creek; Study Area 2 Appendix VII		
	Description of Permit Requirement, Section 8.2.2.1			
i.	Characterize the groundwater resource (including water quality, quantity, flow characteristics, hydraulic conductivity of the affected aquifer(s), and relationship to surface water system).	Section 1.5 of Appendix VII; Tables LC-01 to -05; Drawings LC-01 to -03, -12 to -15; Figures LC-01 to -05; Diagram LC-01; Attachment III		
ii.	Identify (and if necessary, quantify) impacts to groundwater from mining-related activities.	Section 1.5 of Appendix VII		
iii.	Provide the information necessary to support the development and verification of water quality predictions for the mine site (as per Section 9.9 Water Quality Modelling).	Tables LC-03 to -05; Attachment III		

1.3 Non-compliance

Teck received correspondence from the Ministry identifying a non-compliance with Permit No. 107517.The BC ENV (2022) letter stated:

"The 2021 Regional and Site-Specific Groundwater Monitoring Report does not contain a Study Design for the next year, and no other Study Design submission for Line Creek Mine Phase II, required by this section, could be located on Ministry files. Therefore, Teck is out of compliance with the requirement to submit the study design required by this section by March 31, 2022".

This report was also prepared to fulfill the conditions required to close this non-compliance.



2 Previous Groundwater Monitoring Programs

The LCO Site-Specific Groundwater Monitoring Program (SSGMP), which includes monitoring of the Phase II area, is completed on a quarterly-annual basis (winter, spring, summer, and fall). Groundwater monitoring has been completed in the Phase II area since 2013. The current approved 2018 SSGMP Update was approved by the Ministry of Environment & Climate Change Strategy (ENV) on March 11, 2020. The 2021 LCO SSGMP Update is currently awaiting approval from the ENV. Annual Reporting of groundwater monitoring results for the LCO include the Phase II Groundwater Monitoring Program (GWMP) and the SSGMP specified in Section 8.2.2.1 and Section 9.4.1, respectively, of Amended Permit 107517.

Since 2013, groundwater conditions (quality and groundwater elevations) from the LCO Phase II area have been assessed under the annual groundwater monitoring evaluation of the LCO Dry Creek area. Reports that summarize annual groundwater monitoring results, including the LCO Phase II area, are presented in **Table 2-1**.

Table 2-1: Reports Summarizing Groundwater Monitoring Programs of the LCO Phase II Area

Report Year	Report Title	Qualified Professional
2016	2015 LCO Site Annual Groundwater Monitoring Report	Golder Associates Ltd.
2017	2016 LCO Site Annual Groundwater Monitoring Report	Golder Associates Ltd.
2018	2017 LCO Site Wide Annual Groundwater Monitoring Report	Golder Associates Ltd.
2019	Site-Specific Groundwater Monitoring: 2018 Annual Monitoring Report (Line Creek Operations)	Golder Associates Ltd.
2020	Line Creek Operations Site-Specific Groundwater Monitoring (2019)	Golder Associates Ltd.
2021	2020 Annual Report: Elk Valley Regional and Site-Specific Groundwater Monitoring Programs (includes LCO)	SNC-Lavalin Inc.
2022	2021 Annual Report: Elk Valley Regional and Site-Specific Groundwater Monitoring Programs (includes LCO)	SNC-Lavalin Inc.

In addition, the regional groundwater monitoring program for Teck's Elk Valley operations (the RGMP) has eleven Study Areas to specifically address regional scale groundwater monitoring. RGMP Study Area 2 is located adjacent to the northern extent of the Phase II area. Monitoring results from eight wells at five locations (including three well clusters) are used to evaluate groundwater conditions. Monitoring results from five surface water stations are also considered in the groundwater assessment.

2.1.1 SSGMP Results from 2022

The 2022 LCO SSGMP results for the Dry Creek area, which coincides with the LCO Phase II area, are presented in Appendix VII.

The Phase II area is in the LCO Dry Creek watershed, which discharges to Fording River. In the headwaters, former stream features buried by waste rock act as rock drains. Water management infrastructure (i.e., settling ponds) have been constructed in the upper portion of the valley near the confluence of Dry Creek East Tributary and LCO Dry Creek.





In the upper portion of the watershed, artesian conditions were noted in 2022 during freshet. Groundwater elevations have historically been the highest during freshet and variations in vertical gradients may seasonally occur. All concentrations of order constituents (OCs) were less than primary screening criteria. Non-OC concentrations above primary screening criteria included molybdenum, barium, and lithium which may be associated with background conditions. An increasing nitrate trend (LC_PIZDC1306) and a probable increasing cadmium trend (LC_PIZDC0901) were noted but at concentrations below primary screening criteria. Groundwater quality is generally consistent with non-contact waters, except for potential mixing of mine-influenced waters from waste rock at LC_PIZDC1306. LC_PIZDC1306 is a shallow well adjacent to a pond diversion structure near the headwaters of LCO Dry Creek.

In the lower portion of the watershed, a well cluster consisting of two wells has been installed near the valley outlet. The shallow well (RG_MW_DC1B) is screened in the alluvial deposits while the deeper well (RG_MW_DC1A) is screened below a confining unit. Similar to 2021, flowing artesian conditions were observed at RG_MW_DC1A. The concentration of OCs at these wells were one to two orders of magnitude lower compared to surface water quality in LCO Dry Creek as measured at LC_DC1 (a surface water station in Dry Creek). Mine influence is not suspected in groundwater in this area given the low OC concentrations and analytical results below primary screening criteria.



3 Physical Setting and Hydrology

The framework for the study design for the LCO Phase II area groundwater monitoring program was based on the conceptual site model (CSM) presented in the approved 2018 SSGMP Update (Golder, 2019b), the approved 2020 RGMP Update (SNC-Lavalin, 2020) and the 2021 SSGMP Update (SNC-Lavalin, 2021b; awaiting approval). The CSMs include descriptions of the physical setting, hydrology, geology, mine-related features, physical hydrogeology, and chemical hydrogeology, and present detailed analysis and interpretation of groundwater flow patterns, groundwater geochemistry, groundwater – surface water interactions and potential sources and transport pathways of OCs (nitrate, sulphate, cadmium, and selenium) in groundwater to the main stem valley bottoms (e.g., valleys containing the Fording River and Elk River).

In addition, a general overview of the hydrogeologic setting for the Phase II geographical area is provided within the Main Report, with reference to hydrogeological cross-sections presented on Drawings LC-03 of Appendix VII and block diagrams, as well as geologic mapping included in the Main Report.

The Dry Creek area consists of Lower and Upper Dry Creek watersheds. Dry Creek flows to the northern end of the Phase II mining area and discharges to the Fording River, southeast of GHO. The drainage area associated with Dry Creek contains waste rock from the LCO Phase II area. A flow accretion study at Dry Creek (Golder, 2020) indicated flows from the drainage headwaters (LC_DC3) contribute to a losing reach from the Dry Creek East Tributary confluence (LC_DCDS) with Dry Creek. Downstream of this location, the reach is then gaining or neutral until to nearly the confluence with Fording River. Golder (2020) indicated upwards gradients may have contributed to gaining reaches of the creek; however, two relatively large tributary drainages to the east also join Dry Creek over this reach, which likely also supplement overall flows.

As the drainage contains Phase II spoils, surface water in Dry Creek is considered mine-affected, as concentrations of dissolved selenium, nitrate-N, and sulphate have been noted to be increasing by Golder (2020). All concentrations of OCs were less than primary screening criteria. An increasing nitrate trend and a probable increasing cadmium trend were noted but at concentrations below primary screening criteria. Groundwater quality has been generally consistent with non-contact waters, except for potential mixing of mine-influenced waters from waste rock at LC PIZDC1306.

3.1 Geology and Hydrogeology

Sedimentary bedrock belonging to the Kootenay Group underlies the upper portion of the Dry Creek watershed (Main Report, Drawing 3). Dry Creek roughly parallels the axis of the Alexander Syncline and the subcropping bedrock is Kootenay Group (mostly the Elk Fm). The Elk Fm comprises sandstone, siltstone, mudstone, rare conglomerate, and coal. None of the wells installed in the Dry Creek watershed, prior to 2022, have been advanced to bedrock. For example, near the confluence of Dry Creek and the Fording River, monitoring well RG_MW_DC1A was advanced to a depth of 21 metres below ground surface (mbgs) and farther upstream along Dry Creek, monitoring well LC_PIZDC1404D was advanced to 35.3 mbgs without encountering bedrock.

Dry Creek drains a formerly glaciated valley that is predominantly blanketed with low permeability till and colluvium near the valley flanks. It flows over the Dry Creek alluvial fan before reaching the Fording River floodplain (SNC-Lavalin, 2020) and fluvial deposits have been mapped near the Dry Creek – Fording River confluence. As illustrated on cross section LA-LA' (Drawing LC-03 of Appendix VII) and borehole logs, the surficial geology is primarily fine-grained and continuous.





Available site-specific bedrock hydrogeology information is limited for the Dry Creek area. Seasonal artesian conditions occur in the upper drainage of Dry Creek and significant fluctuations in groundwater surface elevations have been noted in deeper wells (such as LC PIZDC1307).

In Q1 of 2023, a monitoring well cluster of 4 wells (LC_MW23_DCDS_1A/B/C/D) was drilled and installed. Two wells were installed in bedrock formations, LC_MW23_DCDS1A was completed in competent siltstone and LC_MW23_DCDS1B was completed in weathered sandstone overlying the competent bedrock. These new wells are being monitored and sampled and will undergo evaluation for inclusion in the LCO SSGMP, once sufficient data has been acquired and assessed.





4 Site Activities

The primary sources of impacts to groundwater quality include:

- Leachate from spoil piles, including any oxygenated precipitation that passes through the spoil piles and discharges into surface water.
- Pit lakes that form in the mined pits, where coal and other formation rock is exposed to both atmospheric oxygen and moisture.
- Any location where mine-affected surface water of unacceptable quality (especially with respect to OCs) has the potential to infiltrate into groundwater, such as losing reaches of creeks and rivers.



5 Proposed Groundwater Monitoring Program

5.1 Existing Groundwater Monitoring Network

The groundwater monitoring network for LCO Phase II area is presented on Drawing LC-01 of Appendix VII. Within the Phase II area, groundwater wells installed near the Dry Creek settling ponds are within Upper LCO Dry Creek, while wells near the valley outlet are included in Lower LCO Dry Creek. RGMP Study Area 2 is in the Fording River valley bottom and is closest to Lower LCO Dry Creek.

The 2021 SSGMP Update (SNC-Lavalin, 2021b) included a thorough groundwater monitoring program assessment for the LCO Dry Creek Phase II mining area. The Update outlined hydrogeological characteristics of the Dry Creek surface water drainage area, which is the capture area downgradient of the LCO Phase II spoils area. Relevant hydrogeological information provided in that update included hydraulic conductivity values, gradients, groundwater velocity and flow direction and groundwater – surface water interaction information (SNC-Lavalin, 2021b).

Currently, the monitoring network within the Dry Creek area includes monitoring locations:

- Groundwater: LC_PIZDC0901, LC_PIZDC1306, LC_PIZDC1307, LC_PIZDC1308 LC_PIZDC1404S/D;
- Seep: LC SEEP8:
- Surface Water: LC DC1, LC DC3, LC FRDSDC; and
- Other Relevant Monitoring Locations, including wells under evaluation: RG_MW_DC1A/B.

In addition, investigations have been conducted in Q1 of 2023, where monitoring wells (LC_MW23_DCDS_1A/B/C/D) were drilled and completed to provide further characterization, including improving understanding of bedrock (lithified strata) groundwater zones. Further details regarding the 2023 drilling program will be provided to ENV when the data has been compiled, reviewed, and evaluated.

5.2 Proposed Groundwater Monitoring and Sampling Protocols

The *Groundwater Monitoring Program Study Design* has been prepared as an operational program, and was designed to characterize groundwater at the Site, and screen for potential impacts to groundwater from LCO mining activities. Proposed sampling locations and laboratory analyses are based on the current operation, including the current mining footprint and benchmark data provided by the Background Assessment (BGA SNC-Lavalin, 2020) to assess OC parameters.

5.2.1 Groundwater Sampling Methods

The protocols regarding sample collection, sample integrity, and sample storage are presented in Appendix XI of the Main Report. These protocols are consistent with the British Columbia Field Sampling Manual (BCFSM) Parts A and E (BC MOE, 2013a, b) as required in Permit 107517. A consistent general methodology will be followed for each location by adhering to Teck's updated Standard Practices and Procedures (SP&Ps) for water level measurements, well purging and groundwater sampling (TC_GW-01, TC_GW-02; Attachment 1). Field activities will be conducted in accordance with industry accepted





practices and Teck SP&Ps. Combined, these procedures are designed to obtain consistent and representative data, minimize cross-contamination, and ensure the health and safety of all parties.

5.2.2 Sampling Frequency

Sampling frequency for the LCO SSGMP is presented in Appendix XI of the Main Report. Permit 107517 prescribes a minimum quarterly sampling frequency after well installation, to assess seasonal variability of groundwater conditions, which is consistent with the BC Ministry of Environment & Climate Change Strategy (ENV) Water and Air Baseline Monitoring Guidance Document for Mine Proponents and Operators (ENV, 2016).

5.2.3 Analytical Parameters

A list of analytes is appended to the Main Report in Appendix X of the Main Report. Groundwater will be analyzed for select constituents from the core list of general water quality analytes provided in Table 2 of the BC ENV's Water and Air Baseline Monitoring Guidance Document for Mine Proponents and Operators (ENV, 2016). Minimum detection limits for each parameter are suitable for comparison to the screening criteria. The list of recommended constituents, detection limits, and rationale is presented in the 2018 SSGMP Update report (Golder, 2019b).

5.3 Proposed Groundwater Quality Standards

Groundwater quality data will be screened against different criteria based on applicable receptors. A technically based screening process was described in both the 2021 SSGMP Update (SNC-Lavalin, 2021b) and the 2020 RGMP Update (SNC-Lavalin, 2020). Primary and secondary screening criteria may be evaluated and adjusted, based on the needs and requirements for other programs.

The primary screening criteria provide the main indicators for groundwater quality, and the approach is consistent with regulatory guidance, including Technical Guidance Document 6 (TG 6): Assessment of Hydraulic Properties for Water Use Determination (BC MOE, 2015) for EMA Applications and Technical Guidance Document 15 (TG 15): Concentration Limits for the Protection of Aquatic Receiving Environments (BC ENV, 2017).

Groundwater analytical chemistry will be compared to a secondary screening criterion for aquatic life when concentrations of dissolved selenium are above the primary screening criteria. The secondary screening criterion provides context for Teck's operational surface water quality requirements, as well as a technical-based framework for regional evaluation of groundwater to protect aquatic life in the Elk Valley.

A description of the groundwater quality standards is provided in Section 2.1 of the Main Report.

5.4 Program Schedule

Following submission of this study design groundwater monitoring proposal, the program will be implemented as outlined herein. If any changes are required, the requested changes should be communicated to Teck early enough, so the requests can be implemented into the monitoring program. If no communication is received, Teck will assume the study design is deemed satisfactory and has ENV approval.



6 References

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- British Columbia Ministry of Environment (BC MOE). 2013b. Part E Ambient Freshwater and Effluent Sampling. British Columbia Field Sampling Manual. 2013.
- British Columbia Ministry of Environment (BC MOE). 2015. Technical Guidance 6 on Contaminated Sites. Assessment of Hydraulic Properties for Water Use Determinations. Version 3.0, Draft 10, December 2015.
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