

March 31, 2017

Re: Annual Summary Reports For Air, Noise, and Blasting and Vibrations Monitoring

Please find enclosed summary reports for air, noise, and blasting and vibrations monitoring throughout 2016 at Elkview Operations (Elkview). These summary reports and their content are required under Environmental Assessment Certificate M16-01 for the Baldy Ridge Extension Project (BRE). The complete Annual Air Report can be found at Teck.com. Due to monitoring requirements and locations, there are no complete noise or blasting reports at this time as outlined in the attached summary reports

If you have feedback on these reports, please contact Teck through the Teck Elk Valley Feedback Mechanism using one of the methods listed below.

- Phone: 1-855-806-6851
- Email: feedback.teckcoal@teck.com
- Online submission form: www.teck.com/contact
- Feedback Boxes located throughout the Elk Valley and the Crowsnest pass

Responses to feedback will be sent if contact information is given.

The construction phase of BRE commenced in December, 2016 and the operations phase in January 2017.

Sincerely,



Casandra Knooihuizen, A.Ag.
Environmental Coordinator
Teck Coal Limited – Elkview Operations



1. Monitoring Results Summary

1.1. Source Monitoring

EVO is required to monitor the Coal Dryer Stack and the Coal Breaker Stack twice a year to measure the discharges to the air. Each of these sources have permit limits for flow (in m³/s) and particulate matter (in mg/m³).

In Q2 and Q4 2016, the Coal Dryer Stack and Coal Breaker Stack (Figure 2) were sampled for Total Suspended Particulate (TSP) and Flow. The Breaker Stack exceeded the permit limit for TSP on May 2, 2016 and November 7, 2016. The stack was then re-sampled on June 23, 2016 and December 13, 2016 and the sample results were well within permit limits, as shown in Table 1.

Table 1: Source Monitoring Data from 2016

Sample Date	Location	Average Flow Rate (m ³ /s)	Average Total Particulate (mg/m ³)
May 2, 2016	Coal Breaker Stack	14	298
June 23, 2016		14	31
Nov 7, 2016		9	247
Dec 13, 2016		8	29
Permit Limit		14	150
May 3-4, 2016	North Dryer Stack	-	30
	South Dryer Stack	-	21
	Combined Dryer Stacks	115	-
Nov 8-9, 2016	North Dryer Stack	-	17
	South Dryer Stack	-	32
	Combined Dryer Stacks	90	-
Permit Limit		133	85

1.1.1 Changes Made Based on Source Monitoring Results

In the event that results from source or ambient monitoring exceed permit limits, EVO conducts a root cause analysis and develop corrective actions to prevent exceedances in the future. Following the May 2, 2016 and November 7, 2016 breaker stack permit exceedance, a subsequent investigation identified the root causes and a number of changes to maintenance practices and operating procedures were made to address these.

1.2. Ambient Monitoring

EVO is required to monitor ambient air quality at three monitoring locations; Downtown Sparwood Centennial Square (DTAM), the Whispering Winds Trailer Park (WWTP) and the old Michel By-Products Plant (MBPP) in the Michel Valley (Figure 2). The results of the continuous air monitoring at these stations is compared to British Columbia Ambient Air Quality

Objectives¹ for PM10² and PM2.5³. In 2016, all stations achieved PM2.5 air quality objectives. PM10 concentrations exceeded air quality objectives once (1) in 2016 at the Downtown Sparwood Air Monitoring Station (DTAM) (0.29% exceedance) (Figure 1).

Achieving BC Ambient Air Objectives for PM2.5 is based on the 98th percentile results of daily average for the year being below the guideline. Daily averages above the BC Ambient Air Quality Objectives are indicators for potential dusting events, as discussed in Section 1.2.1 of this report.

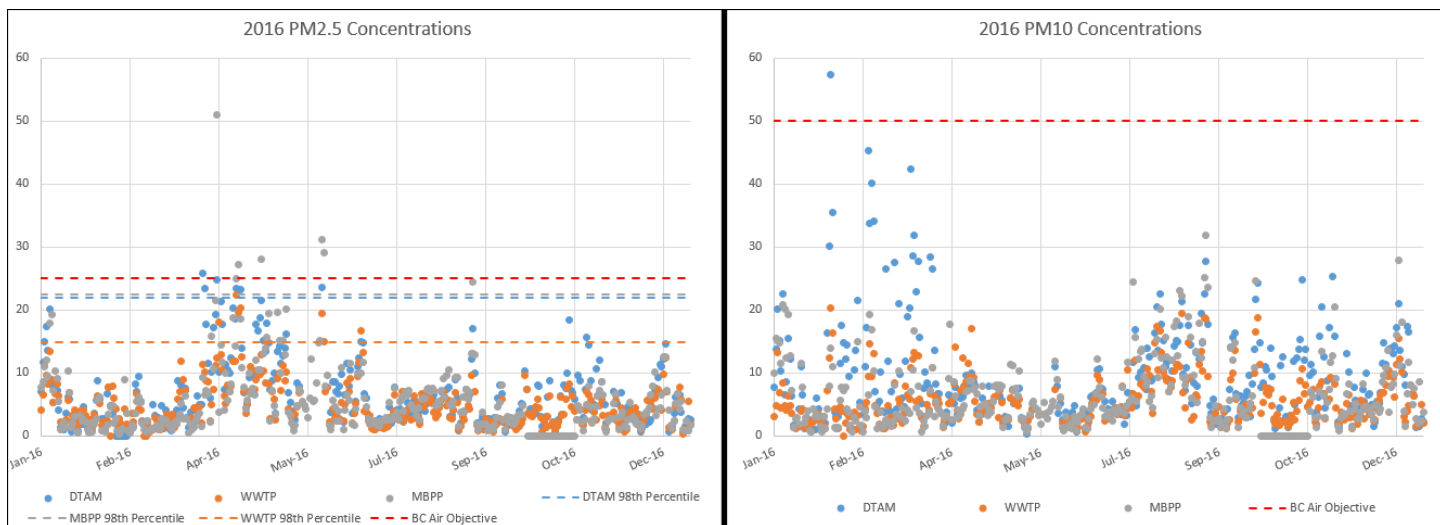


Figure 1: PM2.5 and PM10 concentrations at continuous air monitoring stations in 2016

The Downtown Air Monitoring Station (DTAM) collected PM2.5 and PM10 data for 95% and 97% of 2016, respectively. The daily average PM2.5 in 2016 was 6.30 ug/m³, a decrease from the 2015 average of 6.37 ug/m³. The daily average PM10 concentration in 2016 was 9.22 ug/m³, a decrease from the 2015 average of 10.67 ug/m³. The highest average daily concentrations were observed in the Spring and the Winter. Dominant wind direction in 2016 at DTAM was from the South with wind speeds ranging from 0 km/h to 32 km/h.

The Whispering Winds Air Monitoring Station (WWTP) collected PM2.5 and PM10 data for 99% of 2016. The daily average PM2.5 concentration in 2016 was 4.77 ug/m³, a decrease from the 2015 average of 5.61 ug/m³. The daily average PM10 concentration in 2016 was 5.56 ug/m³, a decrease from the 2015 average of 7.83 ug/m³. The highest average daily concentrations were observed in the Spring and the Summer. Dominant wind direction in 2016 at WWTP was from the South-East with wind speeds ranging from 0 km/h to over 40 km/h.

The Michel By-Products Plant Air Monitoring Station (MBPP) collected PM2.5 and PM10 data for 99% and 100% of 2016, respectively. The daily average PM2.5 concentration in 2016 was 5.61 ug/m³, a decrease from the 2015 average of 7.66 ug/m³. The daily average PM10 concentration in 2016 was 6.6 ug/m³, a decrease from the average in 2015 of 11.73 ug/m³. The highest average daily concentrations were observed in the Spring and the Summer. Dominant wind direction in 2016 at MBPP was from the South South-East with wind speeds ranging from 0 km/h to 32 km/h.

All data provided is assured by a qualified third party.

1.2.1. Changes Made Based on Ambient Monitoring Results

Instantaneous notifications are used at each monitoring station to inform of potential dusting events and to trigger increased dust management activities and investigations into root causes. In 2017, Elkview Operations will be conducting a monitoring

¹ <http://www.bcairquality.ca/reports/pdfs/aqotable.pdf>

² Particulate matter 10 micrometers (µm) or less in diameter

³ Particulate matter 2.5 micrometers (µm) or less in diameter

assessment by a third party to validate its existing monitoring locations and identify areas for improvement. In addition, methods for speciation and winter dust suppression are being investigated to further improve fugitive dust management on site.

To address any exceedances to the PM_{2.5} and PM₁₀ BC Ambient Air Quality Objectives, EVO is developing management practices for various fugitive dust sources in an attempt to reduce PM concentrations.

2 Community Feedback

In 2016, twelve (12) pieces of feedback regarding dust were recorded, occurring between April 11th and October 27th. The majority of dust feedback received was related to visible dust from spoiling activities at EVO. In 2017, Elkview will be investigating various dust management practices specific to certain fugitive dust sources. As mentioned above, EVO will also be developing methods for dust speciation in order to better evaluate dust attributed to mining activities. This will enable Elkview to better inform the community and address their concerns over dust. The Elk Valley mines recognize dust as a primary concern to nearby communities and takes all feedback seriously.

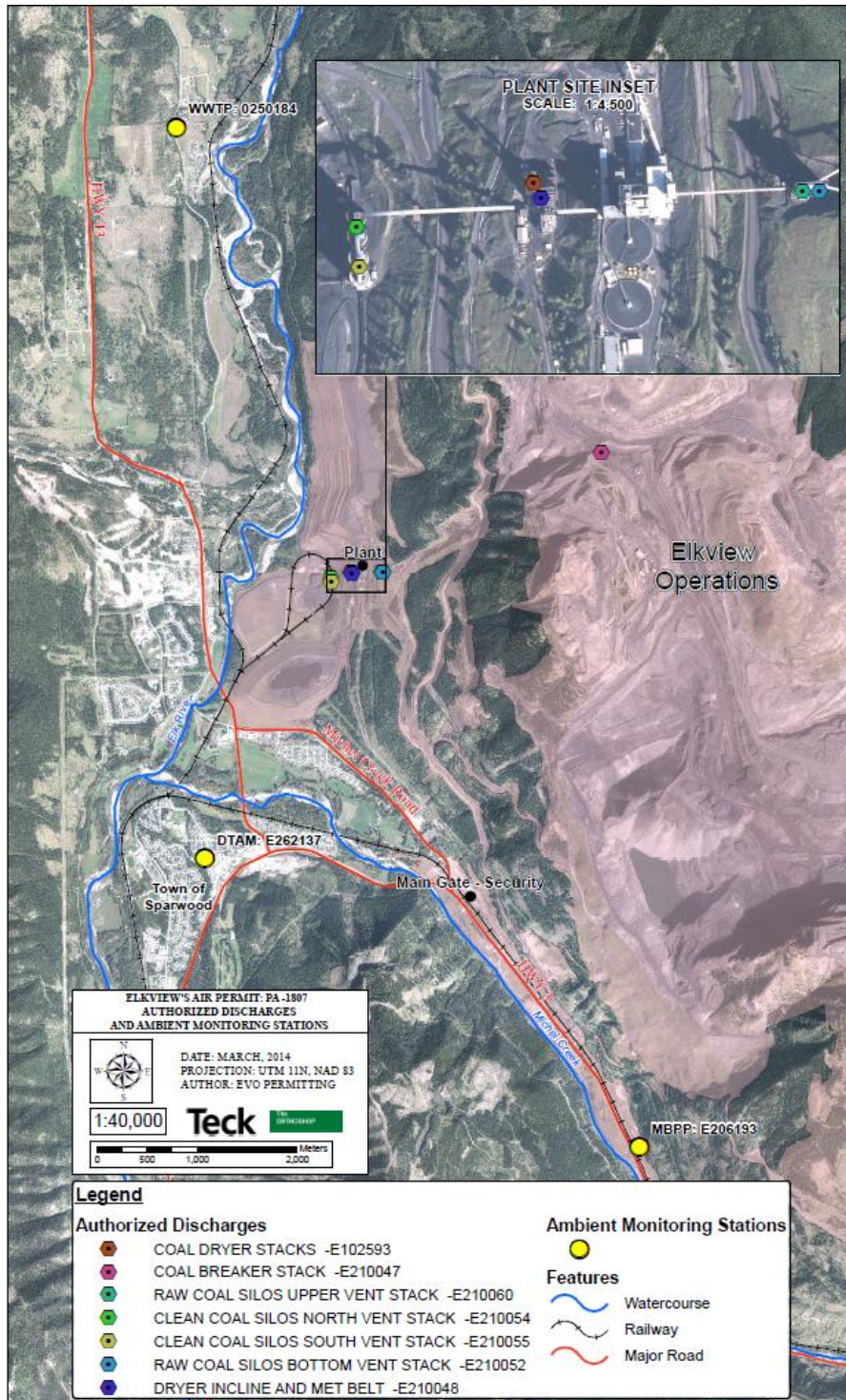


Figure 2: Elkview Operations Air Quality Monitoring Stations

This document was prepared by:

Jessica Tremblay
Environmental Engineer-in-Training
Elkview Operations



1. Monitoring Results Summary

The primary objective of the Noise Control Plan is to ensure that noise levels do not exceed daytime and nighttime (10:00 pm to 7:00 am) guidelines. This will limit any potential noise nuisance to the local community and wildlife.

As outlined in the Noise Control Plan, once mining reaches critical distances or if community feedback indicates noise concerns, a qualified professional will audit the Noise Control Plan. Should the review of the model results indicate a potential concern in exceeding the noise limits identified, then Teck will design and implement a noise monitoring program to further validate the model results.

Elkview's current noise model defines critical separation distances as 1,000 m for the Baldy Ridge 3 Pit and 3,000 m for the Baldy Ridge 4 pit from the nearest residences on Michel Creek Road. Outside of these distances, measured sound levels attributable to mining operations are not verifiable.

At this time, mining on Baldy Ridge has not progressed to within the critical separation distances identified in the Noise Management Plan. Elkview's current mine plan predicts that mining will reach the critical separation distances in 2025

2. Community Feedback

No community feedback was received in 2016 in regards to noise.



1. Monitoring Results Summary

Throughout 2016, Elkview Operations monitored ground vibrations and air overpressure around the community of Sparwood. The monitoring stations are fixed stations and have seismographs (geophones) capable of detecting ground vibration and are equipped with microphones to detect air overpressure from blasting operations. Figure 1: Ground Vibration and Air Overpressure Monitoring Stations (2016) shows the location of the existing ground vibration and air overpressure monitoring stations.

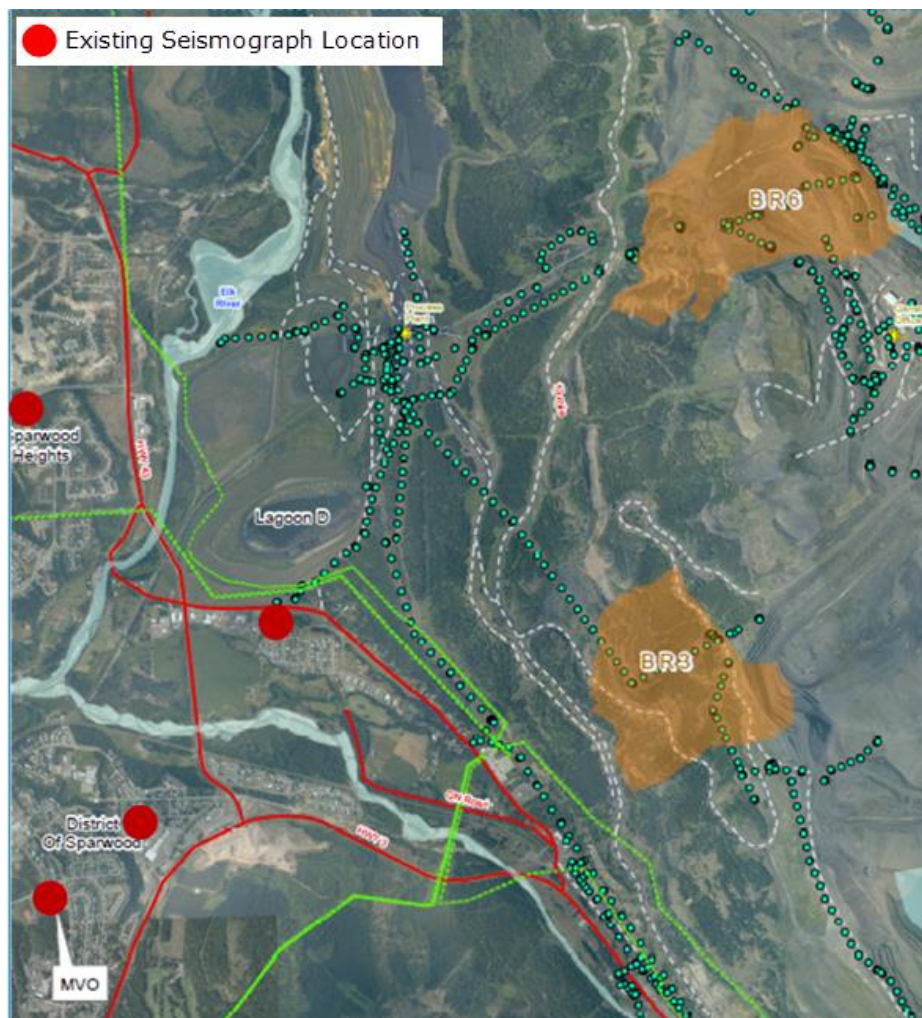


Figure 1: Ground Vibration and Air Overpressure Monitoring Stations (2016)

All monitoring stations were set to the minimum trigger level of 1.3 mm/sec (0.05 in/sec) for ground vibration in order to detect ground vibrations from blasting as the primary trigger and avoid recording “background noise”.

During 2016 there were two hundred twenty four blasts conducted at EVO Operations. The distribution of these blasts by month are shown in Figure 2 - EVO Blasts by Month. Due to the distance between the blasting operations to the monitoring

stations, topography, difference in elevation and local geology, no blast in 2016 was captured by any of the monitoring stations.

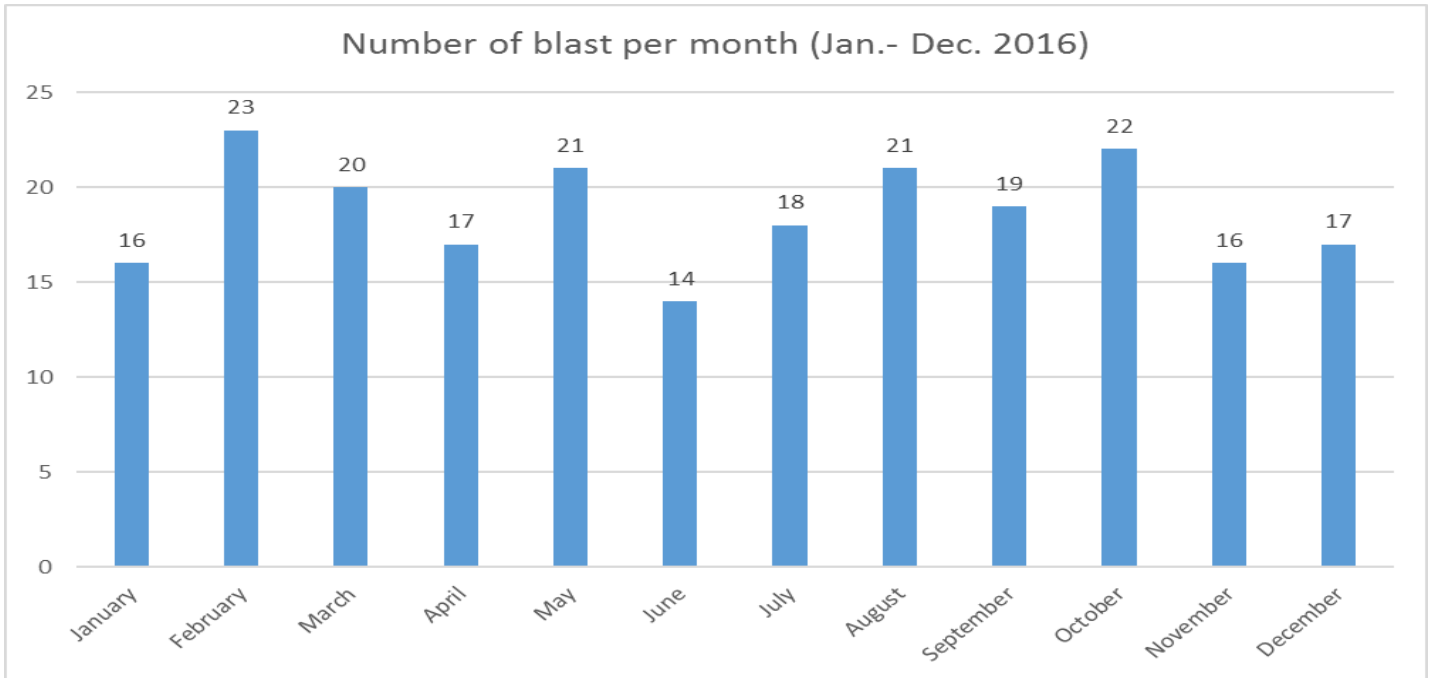


Figure 2 - EVO Blasts by Month

The seismographs were sent for calibration at the end of December 2016. In 2017, Elkview acquired four new seismographs in order to update to the latest technology available. The new seismographs will be installed in accordance with the *International Society of Explosives Engineers (ISEE) Field Practice Guidelines for Blasting Seismographs 2015*.

1.1. Changes Made Based on Monitoring Results

As there were no blasts that triggered any of the seismographs in 2016, Elkview will re-locate two seismographs closer to the operation in order to obtain data that will assist in updating the ground vibration and air overpressure predictive models. These are scheduled to be installed in April, 2017. Selected locations are shown in Figure 3- 2017 below.

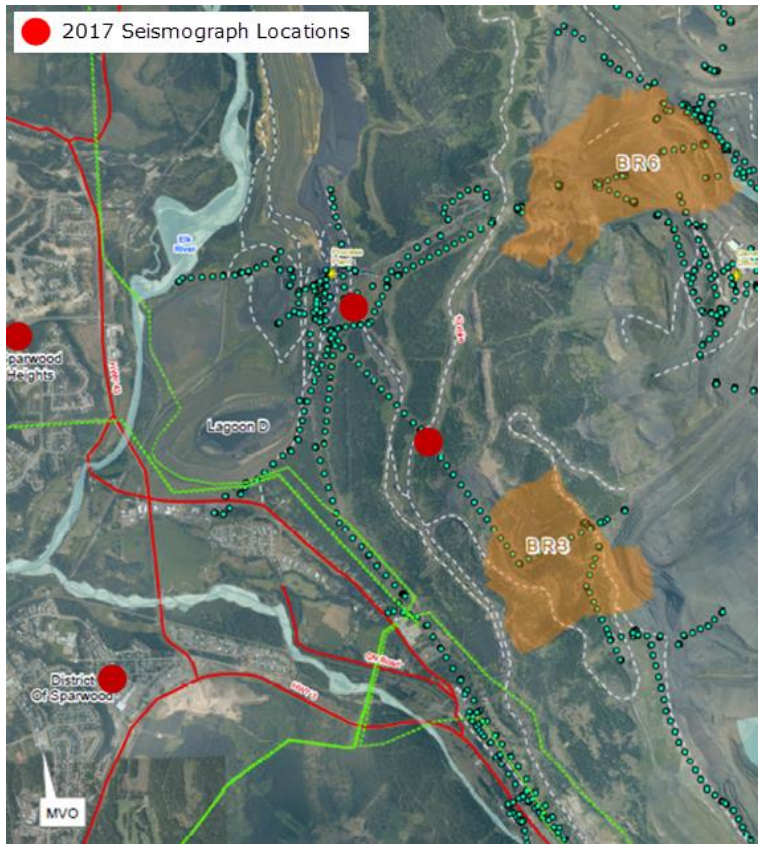


Figure 3- 2017 Ground Vibration and Air Overpressure Monitoring Stations

2. Community Feedback

No community feedback was received in 2016 in regards to ground vibrations and air overpressure.

This document was prepared by:

Dan Myck
Professional Geologist
Elkview Operations