



PO BOX 1500
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January 2, 2019

Distribution List

RE: Air Quality Reports for the Week of December 22, 2018.

A summary of the Giant Mine ambient air quality monitoring program (AQM) for the week ending December 22, 2018 is as follows:

Fence Line Network:

- Air Quality monitoring at the fence line stations was completed at 12:00 AM December 19, 2018.
- No 15-minute average particulate matter less than 10 microns in diameter (PM₁₀) concentrations above the established Risk Based Action Level (RBAL) of 159 µg/m³ were measured at the fence line monitoring stations during the week. PM₁₀ concentrations measured at the fence line stations during the week were typical of seasonal background concentrations;
- No 15-minute average total suspended particulate (TSP) concentrations above the established RBAL of 333 µg/m³ were measured at the fence line monitoring stations during the week. TSP concentrations measured the fence line monitoring locations during the week were typical of seasonal background concentrations;
- Laboratory results for TSP, PM₁₀, and trace metals (including arsenic) analyses from samples collected on November 28, December 1, 4, and 7, 2018 at the fence line stations were less than the analytical detection limit and/or below the referenced standard. Laboratory analyses of integrated 24-hour arsenic, PM₁₀, and TSP filter samples collected at the fence line stations after December 7, 2018 are pending.

Community Stations:

- No real-time PM_{2.5} or PM₁₀ 24-hour average concentrations above the referenced standards for each were measured at any of the community stations during the week;
- Laboratory results from TSP, PM₁₀, and trace metals (including arsenic) samples collected on November 25, 28, and December 1, 2018 at the community stations

were less than the analytical detection limit and/or below the referenced standard. Laboratory analyses of community station filters collected after December 1, 2018 are pending;

- Laboratory results from asbestos samples collected on December 4 and 7, 2018 at the community stations were less than the analytical detection limit and/or below the referenced standard. Laboratory analyses of asbestos samples collected at the community stations after December 7, 2018 are pending;
- There were no NO₂ concentrations measured at the Niven Lake community air monitoring station above the NWT Ambient Air Quality 24-Hour Standard of 106 parts per billion (ppb) or the 1-Hour Standard of 213 ppb during the week. Table 1 summarizes the daily hourly maximum concentrations and the daily 24-hour average concentrations measured at the Niven Lake community station during the week.

**Table1
Niven Lake Community AQM Station NO₂ Concentrations**

Date	Maximum One-hour Average (ppb)	24-hour Average (ppb)
December 16, 2018	16.6	4.3
December 17, 2018	5.3	2.7
December 18, 2018	5.7	3.7
December 19, 2018	3.5	2.2
December 20, 2018	2.1	1.5
December 21, 2018	6.5	2.0
December 22, 2018	3.7	1.6

C5-09 Stope Stabilization Program:

- All air quality monitoring associated with the C5-09 stope stabilization program ended on December 18, 2018..
- There were no 15-minute average PM₁₀ concentrations above the RBAL of 260 µg/m³ measured at the monitors associated with the C5-09 stope stabilization program during the week;
- Laboratory analyses of C5-09 PM₁₀ and arsenic filter samples collected on November 28 and December 1, 2018 were less than the analytical detection limit and/or below the referenced standard. Laboratory analyses of C5-09 PM₁₀ and arsenic filter samples collected after December 1, 2018 are pending.

General Operation:

- Data completeness for the reporting period was 98.26% for real-time TSP samplers associated with the fence line monitoring network, 98.57% for real-time

PM₁₀ samplers associated with the fence line monitoring network, and 97.57% for real-time PM₁₀ samplers associated with the C5-09 monitoring network;

- The AQM program operated as specified during the week ending December 22, 2018, with the following exceptions:
 1. A total of 6 hours of real-time TSP data were invalidated from the fence line stations during maintenance and repair;
 2. A total of 9.25 hours of real-time PM₁₀ data were invalidated from the fence line stations during maintenance and repair;
 3. A total of 5.25 hours of real-time PM₁₀ data were invalidated from the C5-09 stations during maintenance and repair.

Sincerely,



Natalie Plato
Deputy Director
Giant Mine Remediation Project

c.c.: Distribution List