

**From:** Cooper, Kayla (AADNC/AANDC)  
**To:** [Cooper, Kayla \(AADNC/AANDC\)](#)  
**Subject:** Giant Mine ambient AQMP summary report for the week ending August 4, 2018  
**Date:** August 14, 2018 10:58:42 AM  
**Attachments:** [GIANT - REGULATORY AND MONITORING - AQM WEEKLY SUMMARY - WEEK ENDING IN August 4 2018.pdf](#)

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Good morning,

A summary of the Giant Mine ambient air quality monitoring program (AQMP) for the week ending August 4, 2018 is as follows:

Fenceline Network:

- No 15-minute average particulate matter less than 10 microns in diameter (PM<sub>10</sub>) concentrations above the established Risk Based Action Level (RBAL) of 159 µg/m<sup>3</sup> were measured at the fenceline monitoring stations during the week. PM<sub>10</sub> concentrations measured at the fenceline monitoring locations 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/m<sup>3</sup> were measured at the fenceline monitoring stations during the week. TSP concentrations measured the fenceline monitoring locations during the week were typical of seasonal background concentrations;
- Laboratory results for TSP, PM<sub>10</sub>, and trace metals (including arsenic) analyses from samples collected on July 10, 2018 at the fence line monitoring locations were less than the analytical detection limit and/or below the referenced standard. Laboratory analyses of integrated 24-hour arsenic, PM<sub>10</sub>, and TSP filter samples collected at the fence line sampling locations after July 10, 2018 are pending.

Community Stations:

- No real time PM<sub>2.5</sub> or PM<sub>10</sub> 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, PM<sub>10</sub>, and trace metals (including arsenic) samples collected on June 25, 28 July 1, 4 and 7, 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 July 7, 2018 are pending;
- Laboratory results for asbestos analyses from samples collected on July 13, 16, 19, and 22, 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 July 22, 2018 are pending;
- There were no NO<sub>2</sub> 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.

**Table 1**

### Niven Lake Community AQM Station NO<sub>2</sub> Concentrations

Date	Maximum One-hour Average (ppb)	24-hour Average (ppb)
July 29, 2018	0.6	0.0
July 30, 2018	3.8	0.4
July 31, 2018	1.5	0.5
August 01, 2018	9.4	2.1
August 02, 2018	1.6	0.5
August 03, 2018	2.3	0.2
August 04, 2018	1.8	0.0

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#### C5-09 Stope Stabilization Program:

- Air quality monitoring specific to the C5-09 stope stabilization program was conducted throughout the week at four locations within the vicinity of UBC Pit, and at four locations within the vicinity of the North, Central, and South Tailings Ponds;
- There were no 15-minute average PM<sub>10</sub> concentrations above the RBAL of 260 µg/m<sup>3</sup> measured at the monitors associated with the C5-09 stope stabilization program during the week;
- Laboratory analyses of C5-09 PM<sub>10</sub> and arsenic filter samples collected after July 10, 2018 are pending.

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#### General Operation:

- Data completeness for the reporting period was 99.8% for real time TSP samplers associated with the fence line monitoring network, 99.97% for real time PM<sub>10</sub> samplers associated with the fence line monitoring network, and 99.76% for real time PM<sub>10</sub> samplers associated with the C5-09 monitoring network;;
- The AQM program operated as specified during the week ending August 4, 2018, with the following exceptions:
  - The NVN station did not record two hours of real time PM<sub>10</sub> or PM<sub>2.5</sub> on July 30, 2018 during scheduled monthly quality assurance verifications;
  - The TSP sampler at fence line monitoring location Site G-West experienced a malfunction on July 30, 2018 and data from 05:00 MST to 06:00 MST was invalidated. The sampler was evaluated and returned back to service;
  - The TSP sampler at fence line monitoring location Site G-West experienced a malfunction on August 4, 2018 and data from 09:00 MST to 10:30 MST was invalidated. The sampler was removed from service and replaced with a spare;
  - Two and half hours of PM<sub>10</sub> data was lost during the week from C5-09 monitoring location Site T2 - MSA as a result of battery failure during the week.

#### **Kayla Cooper**

Administrative Project Coordinator

Giant Mine Remediation Project

Crown-Indigenous Relations and Northern Affairs Canada  
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August 14, 2018

Distribution List

**RE: Air Quality Reports for the Week of August 4, 2018.**

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Sincerely,



Natalie Plato  
Deputy Director  
Giant Mine Remediation Project

c.c.: Distribution List