## Permits

**From:** Geneva Irwin <Geneva.Irwin@aandc-aadnc.gc.ca>
**Sent:** Friday, May 20, 2016 2:45 PM
**Subject:** Air Quality Monitoring Weekly Summary Week Ending in May 14
**Attachments:** AQM May 14.pdf

Good Afternoon,

A summary of the Giant Mine ambient air quality monitoring program for the week ending May 14, 2016 is as follows:

Fenceline Network:

- No 15-minute average particulate matter less than 10 microns in diameter ($PM_{10}$) concentrations above the established Risk Based Action Level (RBAL) (159 µg/m$^3$) were measured at the fenceline monitoring stations during the week. $PM_{10}$ and TSP concentrations measured at the fenceline locations during the week were typical of seasonal background concentrations.

- No 15-minute average total suspended particulate (TSP) concentrations above the established RBAL (333 µg/m$^3$) were measured at the fenceline monitoring stations during the week. TSP concentrations measured at fenceline locations during the week were typical of seasonal background concentrations.

Community Stations:

- No twenty-four (24) hour average concentrations of $PM_{2.5}$ and $PM_{10}$ were measured above the referenced standard at the community stations during the week. $PM_{2.5}$ and $PM_{10}$ concentrations during the week were typical of seasonal background concentrations;

- Laboratory results from sample collected at the NAPS community station on April 21, 2016 indicated a TSP concentration of 274 µg/m$^3$ was measured above the referenced standard of 120 µg/m$^3$; a $PM_{10}$ concentration of 88 µg/m$^3$ was measured above the referenced standard of 50 µg/m$^3$ and a total iron concentration of 7.3 µg/m$^3$ was measured above the referenced standard of 4 µg/m$^3$.

    - Winds on April 21 were light and predominately blowing from the north, placing the city of Yellowknife downwind of Giant Mine. The 24-hour $PM_{10}$ concentration measured with the continuous beta attenuation monitor (BAM) at NAPS were above the referenced standard (50 µg/m$^3$) on that day, while 24-hour $PM_{10}$ concentrations measured with the BAMs at the YCC and NDL community stations were below the standard. Elevated hourly $PM_{10}$ concentrations were measured at the NDL community station during the hours of 9:00 PM through 11:00 PM MST. Road dust generated during spring melt were observed in the vicinity of both the NAPS and NDL community stations during the week and was likely the main contributor to the elevated $PM_{10}$ concentrations.

- All other available laboratory results from samples collected at the community stations for TSP, $PM_{10}$, and trace metals were less than the analytical detection limit and/or below the referenced standards for samples collected on April 21 and 24, 2016. Laboratory results from available TSP, $PM_{10}$, and trace metals samples collected after April 24, 2016 are pending.

    - Laboratory results from asbestos samples collected at the community stations after April 24, 2016 are pending.

## South Pond Air Monitoring:

- A Met One E-Sampler was operating at the south end of the South Tailings Pond to monitor for potential dust from the North, Central, and South Tailings Ponds during anticipated high seasonal winds historically occurring during the spring months;

- No 15-minute average $PM_{10}$ concentrations above the RBAL criteria (159 $\mu g/m^3$) were measured at the South Pond Monitoring location during the week. $PM_{10}$ concentrations measured at this location during the week were typical of seasonal background concentrations;

- Laboratory results of arsenic concentrations collected on April 27, 2016, April 29, 2016, and May 1, 2016 at the South Pond location were less than the analytical detection limit and/or below the referenced standards. Laboratory results from available arsenic filter samples collected after May 1, 2016 are pending.

## General Operations:

- The AQM program operated as specified during the week ending May 14, 2016.

Regards,

Natalie Plato

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Indigenous and Northern Affairs Canada
Affaires autochtones et du Nord Canada

PO BOX 1500
YELLOWKNIFE NT X1A 2R3

**NT 842433**

May 20, 2016

Distribution List

**RE: Air Quality Reports for the Week of May 14, 2016.**

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General Operations:

- The AQM program operated as specified during the week ending May 14, 2016.

Sincerely,

Natalie Plato
Deputy Director
Giant Mine Remediation Project

c.c.: Distribution List