



PO BOX 1500
YELLOWKNIFE NT X1A 2R3

NT 884321

MV2012L8-0010

May 23, 2017

Distribution List

RE: Air Quality Reports for the Week of May 13, 2017.

A summary of the Giant Mine ambient air quality monitoring program (AQM) for the week ending May 13, 2017 is as follows:

Fenceline Network:

- 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 fenceline monitoring stations during the week. PM₁₀ concentrations measured at fenceline locations during the week were typical of seasonal background concentrations;
- Five 15-minute average total suspended particulate (TSP) concentrations above the established fenceline RBAL of 333 µg/m³ were measured at the fenceline monitoring stations A-North Pond, H-NW Pond, and I-South Pond on May 7, 2017. No other 15-minute average TSP concentrations above the RBAL were measured at the fenceline monitoring stations during the week. During the time these concentrations were measured freezing fog and intermittent snow were observed throughout the site and in Yellowknife, which appears to have interfered with the TSP samplers. SLR is not aware of any site activities that may have influenced these concentrations;
 - One 15-minute average concentrations were measured at site A-North Pond on May 7, 2017 (500 µg/m³ at 13:30 MST). During this time the wind speed was 1.2 m/s and wind direction was from the south-southeast placing Yellowknife upwind from Giant Mine;
 - Two 15-minute average concentrations were measured at site H-NW Pond on May 7, 2017 (583 µg/m³ at 12:45 MST and 363 µg/m³ at 13:00 MST). During this time the wind speed was 2.7 and 1.7 m/s, respectively and wind direction was from the south-southeast placing Yellowknife upwind from Giant Mine;
 - Two 15-minute average concentrations were measured at site I-S Pond on May 7, 2017 (661 µg/m³ at 13:15 MST and 514 µg/m³ at 13:30 MST). During this time the wind speed was 1.2 and 1.0 m/s, respectively and wind direction was from

the south-southeast and the south, respectively placing Yellowknife upwind from Giant Mine;

Community Stations:

- No 24-hour average concentrations of PM_{2.5} and PM₁₀ were measured above the referenced standards at the community stations during the week. PM_{2.5} and PM₁₀ concentrations during the week were typically representative of seasonal background concentrations;
- Laboratory results from TSP, PM₁₀, and trace metals (including arsenic) samples collected on April 19 and 25, 2017 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 April 25, 2017 are pending.
- Laboratory results from asbestos samples collected on April 19 and 25, 2017 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 April 25, 2017 are pending.
- There were no NO₂ concentrations measured at the recently established 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 NO₂ Concentrations

Date	Maximum One-hour Average (ppb)	24-hour Average (ppb)
May 07, 2017	1.0	0.4
May 08, 2017	4.3	0.9
May 09, 2017	2.4	1.0
May 10, 2017	0.5	0.2
May 11, 2017	0.6	0.2
May 12, 2017	0.9	0.2
May 13, 2017	0.4	0.2

General Operation:

- The AQM program operated as specified during the week ending May 13, 2017, with the following exceptions:
 - The NDL community station had incomplete continuous PM_{2.5} data on May 10, 12, and 13, 2017 due to greater than seven hours of data which was invalidated on those days for reported concentrations less than -3 µg/m³.

Sincerely,

A handwritten signature in blue ink that reads "Natalie Plato". The signature is written in a cursive style with a small dot above the letter 'i' in "Natalie".

Natalie Plato
Deputy Director
Giant Mine Remediation Project

c.c.: Distribution List