



PO BOX 1500
YELLOWKNIFE NT X1A 2R3

October 20, 2020

Distribution List

A summary of the Giant Mine Remediation Project ambient air quality monitoring program for the week ending October 10, 2020 is as follows:

Site Perimeter Stations

- 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 site perimeter monitoring stations during the week. PM₁₀ concentrations measured at the site perimeter monitoring locations during the week were typical of seasonal background concentrations;
- A total of six (6) 15-minute average total suspended particulate (TSP) concentrations above the established RBAL of 333 µg/m³ were measured at site perimeter monitoring stations A-North, C-Northwest, D-Beach, and H-NW Pond on October 8, 2020. Heavy fog was observed on this day and was the likely cause of the measured TSP exceedances. No site activities that may have contributed to the reported exceedances were observed by or reported to SLR personnel during these time periods. Filter media collected from all Site Perimeter stations on October 8, 2020 were submitted for laboratory analysis.
 - Six (6) 15-minute average TSP concentrations ranging from 346 µg/m³ and 471 µg/m³ were measured from 00:30 to 01:15 MST. During this time the average wind speed was 1.9 m/s from the east, placing Yellowknife crosswind from Giant Mine.
- Laboratory results for integrated TSP, PM₁₀, and trace metals (including arsenic) analyses from samples collected on September 21, 2020 at the site perimeter monitoring 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 site perimeter stations after September 21, 2020 are pending.

Community Stations

- No continuous 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. PM_{2.5} and PM₁₀ concentrations during the week were typically representative of seasonal background concentrations;
- Laboratory analyses of community station filters collected after September 21, 2020 are pending;
- There were no NO₂ concentrations measured at the Niven Lake Community Station above the NWT Ambient Air Quality 24-hour Standard of 106 parts per billion (ppb) or the one-hour Standard of 213 ppb during the week. Table 1



summarizes each day's maximum hourly concentration and each day's 24-hour average concentration at the Niven Lake community station during the week.

Table 1
Niven Lake Community Station NO₂ Concentrations

Date	Maximum One-hour Average (ppb)	24-hour Average (ppb)
October 04, 2020	0.6	0.0
October 05, 2020	2.6	0.8
October 06, 2020	2.3	0.3
October 07, 2020	3.6	1.4
October 08, 2020	1.3	0.3
October 09, 2020	1.1	0.4
October 10, 2020	3.0	0.0

General Operation

- Integrated sampling for TSP, PM₁₀, and trace metals (including arsenic) was conducted on October 6 and 9, 2020. The next regularly scheduled sampling is October 12, 2020;
- Data completeness for the reporting period was 99.47% for continuous TSP and 99.32% for continuous PM₁₀ concentrations measured at the site perimeter monitoring stations;
- The AAQM program operated as specified during the week ending October 10, with the following exceptions:
 - The PM₁₀ sampler at site perimeter station C-Northwest did not record data from 02:00 to 05:30 on 10/7/2020 due to a faulty battery cable;
 - The TSP sampler at site perimeter station C-Northwest did not record data from 23:00 on 10/6/2020 to 05:30 on 10/7/2020 due to a faulty battery cable;
 - The PM₁₀ sampler at site perimeter station C-Northwest did not record data from 22:30 on 10/9/2020 to 05:00 on 10/10/2020 due to a battery failure.

Sincerely,



Natalie Plato
Deputy Director
Giant Mine Remediation Project
c.c.: Distribution List