



PO BOX 1500
YELLOWKNIFE NT X1A 2R3

November 27, 2020

Distribution List

A summary of the Giant Mine Remediation Project ambient air quality monitoring program for the week ending October 17, 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 elevated due to the on-going windy site conditions but remained below RBAL;
- No 15-minute average total suspended particulate (TSP) concentrations above the established RBAL of 333 µg/m³ were measured at the site perimeter monitoring stations during the week. TSP concentrations measured at the site perimeter monitoring locations during the week were elevated due to the on-going windy site conditions but remained below RBAL;
- Laboratory results for integrated TSP, PM₁₀, and trace metals (including arsenic) analyses from samples collected on September 24, 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 on September 22, 2020 and after September 24, 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 11, 2020	12.8	0.8
October 12, 2020	0.0	0.0
October 13, 2020	11.4	0.2
October 14, 2020	0.0	0.0
October 15, 2020	0.0	0.0
October 16, 2020	13.2	0.3
October 17, 2020	19.4	0.0

General Operation

- Integrated sampling for TSP, PM₁₀, and trace metals (including arsenic) was conducted on October 12 and 15, 2020. The next regularly scheduled sampling is October 18, 2020;
- Data completeness for the reporting period was 99.88% for continuous TSP and 99.75% for continuous PM₁₀ concentrations measured at the site perimeter monitoring stations;
- The AAQM program operated as specified during the week ending October 17, with the following comments:
 - During the week seasonally high wind speeds were measured by the on-site met station. The sustained wind speeds rose above 4 m/s in the early morning on October 12, 2020 and remained elevated for the remainder of the week. During this time the maximum wind speed measured was 14.4 m/s on October 13, 2020 at 13:30 MST, and from October 12, 2020 to October 18, 2020 44% of the wind speeds measured were above 10 m/s. The historical average wind speeds measured on Giant Mine from 2014 to 2019 during the month of October have been 3.1 m/s compared to overall average wind speed 2014 to 2019 of 2.9 m/s. During the times when wind speeds were above 4 m/s the wind direction was consistently from the northwest and north-northwest placing the city of Yellowknife the community of Ndilo downwind.

- Visible dust blowing off the tailings ponds was observed on October 13, 2020. Water trucks which had been on stand-by were utilized as a dust suppression measure. Water truck access to portions of the tailings containment areas was limited by the presence of standing water and soft ground. On October 15, 2020 helicopter aircraft were utilized to deliver water to the inaccessible portions tailings ponds as an additional dust suppression effort.

Sincerely,

A handwritten signature in blue ink that reads "Natalie Plato". The signature is written in a cursive, flowing style.

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