

## MVLWB Registry

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**From:** Fallon Morton <Fallon.Morton@aandc-aadnc.gc.ca>  
**Sent:** Friday, September 12, 2014 1:41 PM  
**To:** NWTLands  
**Cc:** Lisa Colas  
**Subject:** Giant Mine AQM summary for the week ending September 6, 2014  
**Attachments:** AQM Summary Letter Sep 1-6, 2014.pdf

Greetings,

Attached is the AQM weekly summary report for Giant Mine for week ending September 6, 2014.

In discussions with the Giant Mine Working Group, in lieu of the detailed weekly reports the project has decided to provide weekly summaries and a detailed monthly report. This is done to make the reporting more useful to users, while still maintaining the level of details previously provided.

A summary of the report is provided below:

- 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) criteria were measured at the fenceline locations during the week;
- No 15-minute average total suspended particulate (TSP) concentrations above the established RBAL were measured at the fenceline locations during the week;
- No real time 15-minute average PM<sub>10</sub> concentrations above the established RBAL criteria were measured at the underground vent locations during the week. No PM<sub>10</sub> concentrations above the established RBAL were measured at the surface drilling monitor locations around the B1 Pit during the week;
- Analytical 24-hour arsenic results measured from underground vent and surface drilling monitoring on August 3, August 6, August 9, August 12, August 15, August 18, and August 21, 2014 were less than the analytical detection limit and/or below the referenced criteria. Analysis of filter results collected after August 21, 2014 is pending;
- Laboratory results from daily asbestos samples collected at three sites surrounding the Boneyard cleanup area from August 24 through September 6, 2014 were below the referenced criteria. Analysis of asbestos samples collected after September 6, 2014 are pending;
- No real time 15-minute average PM<sub>10</sub> concentrations above the established RBAL were measured during the week at each perimeter monitoring location (upwind and downwind) for the Roaster deconstruction specific air quality monitoring program;
- There were no continuous 24-hour average concentrations of particulate matter less than 2.5 microns in diameter (PM<sub>2.5</sub>) and no continuous 24-hour average PM<sub>10</sub> concentrations above the referenced criteria measured at the community stations during the week;
- Laboratory results from TSP, PM<sub>10</sub>, and trace metals (including arsenic) samples measured on August 15, 2014 show exceedances of 24-hour PM<sub>10</sub> standard at the NAPS and YCC community stations. The 24-hour PM<sub>10</sub> measured concentrations from the BAM monitors at all community stations on this day were below

the 24-hour average PM<sub>10</sub> criterion, however the 24-hour PM<sub>2.5</sub> criterion was exceeded using measured concentrations from the BAM monitor at all community stations on this day. Winds were predominantly from the N during the morning then switching to SE for the remainder of the day placing the community stations upwind and crosswind of the Giant Mine site for most of the day. Visual observations of smoke from regional forest fires; no dust generating activities observed on-site that would impact community stations; and similar concentrations measured across the community stations indicate measured concentrations above the ambient air quality standard were likely caused by off-site regional forest fires;

- Laboratory results from 24-hour samples collected on August 18, 2014 at the community stations were below the reference criteria for TSP, PM<sub>10</sub>, and trace metals (including arsenic). Laboratory results from 24-hour TSP and PM<sub>10</sub> samples collected after August 18, 2014 are pending;
- Laboratory results from asbestos samples collected at the community stations after August 12, 2014 are pending;
- Laboratory results from samples collected on August 30 – 31, 2014 for the roaster deconstruction specific air quality monitoring program, indicated 24-hour average arsenic, PM<sub>10</sub>, and TSP concentrations were below the referenced applicable criteria;
- The AQM program operated as specified during the week ending September 6, 2014.

Regards,  
Fallon Morton  
Giant Mine Remediation Project  
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September 12, 2014

Mr. Willard Hagen, Chair  
Mackenzie Valley Land and Water Board  
7<sup>TH</sup> FLOOR – 4922, 48<sup>TH</sup> ST., PO BOX 2130  
YELLOWKNIFE, NT X1A 2P6

Dear: Mr. Hagen,

**RE: Water Licence MV2012L8-0010 – Air Quality Reports for the Week of August 24<sup>th</sup>**

This report is meant to satisfy commitments made in the May 21, 2013, responses to review comments on the roaster plans. Our commitment was to provide weekly summaries of the following data:

- PM10 measurements captured by the contractor and the fence-line program;
- All other available and quality assured data, including TSP, trace elements (metals) and asbestos data.

In discussions with the Giant Mine Working Group, in lieu of the detailed weekly reports the project has decided to provide weekly summaries and a detailed monthly report. This is done to make the reporting more useful to users, while still maintaining the level of details previously provided.

In summary for the week of September 1<sup>st</sup> – September 6<sup>th</sup>, 2014, 2014:

- 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) criteria were measured at the fenceline locations during the week;
- No 15-minute average total suspended particulate (TSP) concentrations above the established RBAL were measured at the fenceline locations during the week;
- No real time 15-minute average PM<sub>10</sub> concentrations above the established RBAL criteria were measured at the underground vent locations during the week. No PM<sub>10</sub> concentrations above the established RBAL were measured at the surface drilling monitor locations around the B1 Pit during the week;

- Analytical 24-hour arsenic results measured from underground vent and surface drilling monitoring on August 3, August 6, August 9, August 12, August 15, August 18, and August 21, 2014 were less than the analytical detection limit and/or below the referenced criteria. Analysis of filter results collected after August 21, 2014 is pending;
- Laboratory results from daily asbestos samples collected at three sites surrounding the Boneyard cleanup area from August 24 through September 6, 2014 were below the referenced criteria. Analysis of asbestos samples collected after September 6, 2014 are pending;
- No real time 15-minute average  $PM_{10}$  concentrations above the established RBAL were measured during the week at each perimeter monitoring location (upwind and downwind) for the Roaster deconstruction specific air quality monitoring program;
- There were no continuous 24-hour average concentrations of particulate matter less than 2.5 microns in diameter ( $PM_{2.5}$ ) and no continuous 24-hour average  $PM_{10}$  concentrations above the referenced criteria measured at the community stations during the week;
- Laboratory results from TSP,  $PM_{10}$ , and trace metals (including arsenic) samples measured on August 15, 2014 show exceedances of 24-hour  $PM_{10}$  standard at the NAPS and YCC community stations. The 24-hour  $PM_{10}$  measured concentrations from the BAM monitors at all community stations on this day were below the 24-hour average  $PM_{10}$  criterion, however the 24-hour  $PM_{2.5}$  criterion was exceeded using measured concentrations from the BAM monitor at all community stations on this day. Winds were predominantly from the N during the morning then switching to SE for the remainder of the day placing the community stations upwind and crosswind of the Giant Mine site for most of the day. Visual observations of smoke from regional forest fires; no dust generating activities observed on-site that would impact community stations; and similar concentrations measured across the community stations indicate measured concentrations above the ambient air quality standard were likely caused by off-site regional forest fires;
- Laboratory results from 24-hour samples collected on August 18, 2014 at the community stations were below the reference criteria for TSP,  $PM_{10}$ , and trace metals (including arsenic). Laboratory results from 24-hour TSP and  $PM_{10}$  samples collected after August 18, 2014 are pending;
- Laboratory results from asbestos samples collected at the community stations after August 12, 2014 are pending;
- Laboratory results from samples collected on August 30 – 31, 2014 for the roaster deconstruction specific air quality monitoring program, indicated 24-hour

average arsenic, PM<sub>10</sub>, and TSP concentrations were below the referenced applicable criteria;

- The AQM program operated as specified during the week ending September 6, 2014.

Additional air quality information for the Giant Mine can be found on the NWT Air Quality Monitoring Network web page: <http://aqm.enr.gov.nt.ca>.

Should you have any questions or comments, please contact Adrian Paradis by Telephone: (867) 669-2425 or by E-mail: [Adrian.Paradis@aandc-aadnc.gc.ca](mailto:Adrian.Paradis@aandc-aadnc.gc.ca).

Sincerely,



Adrian Paradis  
Regulatory Manager  
Giant Mine Remediation Project

c.c.: Distribution List