

MVLWB Registry

From: Adrian Paradis <Adrian.Paradis@aandc-aadnc.gc.ca>
Sent: Friday, June 12, 2015 4:22 PM
To: Fallon Morton
Subject: Giant Mine Weekly Air Quality Report for the Week of June 6, 2015
Attachments: Giant Mine Weekly Air Quality Report for Week of June 6, 2015.pdf; Adrian Paradis.vcf

A summary of the Giant Mine ambient air quality monitoring program for the week ending June 6, 2015 is as follows:

Fenceline Network:

- Fenceline air quality monitoring started operations at all sites Friday April 10, 2015. Fenceline samplers were scheduled to run daily from 7 AM to 7 PM local time. Starting on May 31, 2015, fenceline samplers began operating 24 hours per day in support of paste and fill activities, with brief interruptions (e.g., less than 15 minutes) allowed for maintenance and data acquisition;
- There were no 15-minute average particulate matter less than 10 microns in diameter (PM₁₀) concentrations measured above the established Risk Based Action Level (RBAL) criteria at the fenceline monitoring stations during the week. PM₁₀ concentrations measured at fenceline locations were typical of seasonal background concentrations;
- No 15-minute average total suspended particulate (TSP) concentrations above the established RBAL were measured at the fenceline monitoring stations during the week. TSP concentrations measured at fenceline locations were typical of seasonal background concentrations;

Community Stations:

- There were no continuous 24-hour average concentrations of particulate matter less than 10 microns in diameter (PM₁₀) above the referenced criteria measured at the community stations during the week. With exception to the NAPS community station, there were no continuous 24-hour average concentrations of particulate matter less than 2.5 microns in diameter (PM_{2.5}) above the referenced criteria measured at the community stations during the week. The 24-hour PM_{2.5} concentration measured at the NAPS community station on June 5, 2015 was above the reference criteria, however, data quality and PM_{2.5} instrument performance is being validated and confirmed;
- Laboratory results from available TSP, PM₁₀, and trace metals (including arsenic) samples collected on May 21, 2015 at the community stations were less than the analytical detection limit and/or below the referenced criteria. Laboratory analysis of community station filters collected on May 9 and after May 21, 2015 are pending;
- Laboratory analytical results received for asbestos samples collected on April 21, May 18 and 21, 2015 at the community stations were less than the analytical detection limit and/or below the referenced criteria. Laboratory results from asbestos samples collected at the community stations on April 15, May 9, and after May 21, 2015 are pending;

Interim Underground Stabilization (IUS) (tailings work):

- Air quality monitoring at three (3) locations centred on surface drilling in the B1 Pit was initiated on May 9, 2015 in preparation for remediation injection of tailings and paste mix materials. An additional two (2) monitoring locations centred on the freeze plant surface drilling were added on May 18, 2015 and

one (1) more monitor was added on May 20, 2015. Two (2) monitors at the freeze plant were removed on May 30, 2015, following conclusion of drilling at the freeze plant, and the remaining sampler at the freeze plant location concluded sampling on June 1, 2015;

- Air quality monitoring at three (3) locations set on the west, north, and south perimeters of tailings work activities in the Central and South Tailings Ponds was initiated on May 12, 2015. Two (2) additional samplers were deployed on May 14, 2015 to the western perimeters of the North and Central Tailings Ponds. One of the additional samplers was removed from the western perimeter on May 14, 2015;
- There were no 15-minute average PM₁₀ concentrations above the surface drilling RBAL (260 µg/m³) measured at the B1 Pit and freeze plant during the week;
- There were no 15-minute average PM₁₀ concentrations above the tailings work RBAL (180 µg/m³) measured during the week;
- Analytical 24-hour arsenic results measured at four locations around the perimeter of the tailings work that occurred at the North, Central, and South Tailings Ponds on May 18, 2015 was less than the analytical detection limit and/or below the referenced criteria. Analysis of unanalysed filter results collected May 9 – June 6, 2015 for the monitoring of tailings work areas is pending and/or on hold pending request for analysis;
- Analytical 24-hour arsenic results measured at three locations around the perimeter of the surface drilling that occurred at the B1 Pit on May 18, 2015 was less than the analytical detection limit and/or below the referenced criteria. Analysis of unanalysed filter results collected May 12 – June 6, 2015 for the monitoring of surface drilling in the B1 Pit is pending and/or on hold pending request for analysis;
- Analytical 24-hour arsenic results measured at one location near the surface drilling that occurred at the freeze plant on May 18, 2015 was less than the analytical detection limit and/or below the referenced criteria. Analysis of unanalysed filter results collected May 20 – June 2, 2015 for the monitoring of surface drilling near the freeze plant is pending and/or on hold pending request for analysis

Roaster Deconstruction

- Roaster Deconstruction site activities resumed on June 1, 2015. Activities conducted during the week focused on surface scraping. Real-time air quality monitoring for PM₁₀ as well as 24-hour integrated sampling for PM₁₀, TSP and arsenic resumed on June 1, 2015 in support of roaster deconstruction activities. The roaster deconstruction specific air quality monitoring program consisted of four (4) real-time samplers, two (2) PM₁₀ integrated samplers, and two (2) TSP integrated samplers (arsenic) located around planned deconstruction activities;
- There were no real-time PM₁₀ concentrations measured above the referenced criteria for the roaster deconstruction specific air quality monitoring program during the week;
- Laboratory results from 24-hour integrated samples collected on June 2, 2015 for the roaster deconstruction specific air quality monitoring program, indicated 24-hour average arsenic, PM₁₀, and TSP concentrations were below the referenced applicable criteria. Analysis results of samples collected on June 5, 2015 are pending;

General Operations:

- The AQM program operated as specified during the week ending June 6, 2015 with the following exception:
 - The NAPS PM_{2.5} BAM instrument went offline from the morning of May 31, 2015 to the afternoon of June 3, 2015 due to unknown causes.

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>.

For information on RBALs, TSP, PM10 and for answers to other commonly asked questions about Air Quality Monitoring, please see the Giant Mine Remediation Project Team's [online FAQs](#). 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.

Sincerely,

Adrian Paradis

Regulatory Manager, NWT Region, Giant Mine Remediation Project
AANDC/ Government of Canada

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YELLOWKNIFE NT X1A 2R3

NT 690758

June 12, 2015

Mr. Willard Hagen, Chair
Mackenzie Valley Land and Water Board
7TH FLOOR – 4910, 50TH AVE., PO BOX 2130
YELLOWKNIFE, NT X1A 2P6

RE: Water Licence MV2012L8-0010 – Air Quality Reports for the Week of May 3

Dear: Mr. Hagen,

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.

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Community Stations:

- There were no continuous 24-hour average concentrations of particulate matter less than 10 microns in diameter (PM₁₀) above the referenced criteria measured at the community stations during the week. With exception to the NAPS community station,

there were no continuous 24-hour average concentrations of particulate matter less than 2.5 microns in diameter (PM_{2.5}) above the referenced criteria measured at the community stations during the week. The 24-hour PM_{2.5} concentration measured at the NAPS community station on June 5, 2015 was above the reference criteria, however, data quality and PM_{2.5} instrument performance is being validated and confirmed;

- Laboratory results from available TSP, PM₁₀, and trace metals (including arsenic) samples collected on May 21, 2015 at the community stations were less than the analytical detection limit and/or below the referenced criteria. Laboratory analysis of community station filters collected on May 9 and after May 21, 2015 are pending;
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- Analytical 24-hour arsenic results measured at three locations around the perimeter of the surface drilling that occurred at the B1 Pit on May 18, 2015 was less than the analytical detection limit and/or below the referenced criteria. Analysis of unanalysed filter results collected May 12 – June 6, 2015 for the monitoring of surface drilling in the B1 Pit is pending and/or on hold pending request for analysis;

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- There were no real-time PM₁₀ concentrations measured above the referenced criteria for the roaster deconstruction specific air quality monitoring program during the week;
- Laboratory results from 24-hour integrated samples collected on June 2, 2015 for the roaster deconstruction specific air quality monitoring program, indicated 24-hour average arsenic, PM₁₀, and TSP concentrations were below the referenced applicable criteria. Analysis results of samples collected on June 5, 2015 are pending;

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Sincerely,



Adrian Paradis
Regulatory Manager
Giant Mine Remediation Project

c.c.: Distribution List