



# **AGNICO EAGLE**

**ANNUAL REPORT 2017: WATER LICENCE 2BB-MEA1318**

**PRESENTED TO  
NUNAVUT WATER BOARD**

**MARCH 2018**

**Contact:**

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**Water license 2BB-MEA1318, Part B item 6:**

**6. The Licensee shall file an Annual Report on the Appurtenant Undertaking with the Board no later than March 31st of the year following the calendar year being reported, containing the following information:**

a. The daily, monthly and annual quantities in cubic metres of all freshwater obtained for all purposes at Monitoring Station MEA-1;

- *Please see table 1 in 2BB-MEA1318 monitoring program (in attachment) for a summary of water consumption.*

b. The daily, monthly and annual quantities in cubic metres of water pumped from the underground;

- *No water pumped from the underground.*

c. An estimate of the current volume of waste rock and ore stockpiled on site;

- *86,072 m<sup>3</sup> of waste rock was stockpiled on site on December 31<sup>st</sup> 2017.*

d. Tabular summary of all data generated under the Monitoring Program, Part J;

- *Please see 2BB-MEA1318 Monitoring Program, in attachment, for all data generated under the Monitoring Program Part J.*

e. A summary of modification and/or major maintenance work carried out on the Water Supply Facilities, Bulk Fuel Storage and Containment Facilities, and Wastewater Treatment Facility, including all associated structures, and an outline of any work anticipated for the next year;

- 2017
  - *No modification or major maintenance carried out to water supply facilities and fuel storage.*
  - *A third Kodiak Bionest was installed with a new equalization tank system to allow flexibility with the treatment until the Newterra waste water treatment system is in operation.*

➤ 2018 anticipated works:

- *Water supply facilities: replacement of the actual system by a Newterra potable water treatment system is planned.*
- *Wastewater Treatment Facility: The Bionest systems are planned to be replaced by a Newterra membrane bioreactor wastewater treatment system.*

f. A list of unauthorized discharges and a summary of follow-up actions taken;

- Three reportable petroleum spills occurred under this water licence in 2017 and reports were submitted to regulators.
  - *A 1300 liter fuel spill at the former Meadowbank exploration camp site*
  - *A 150 liter used oil spill at the former Meadowbank exploration camp site*
  - *A 4 liter hydraulic oil spill in the Whale Lake during drilling on barge.*
    - *All these spills were cleaned with situation reports submitted to regulators.*
- *To improve the effluent quality during the camp's growing period and avoid non-compliance with the water licence, a new Waste Water Treatment System will be installed in 2018. This system is designed to treat a higher water volume and the effluent quality is expected to be improved. Below are the 2017 exceedances related to the Waste Water Treatment System.*
  - *On January 23 2017, BOD5 was measured at 473mg/L and the maximal limit is 100 mg/L.*
  - *On April 3 2017, oil and grease concentration was measured at 6mg/L and the maximal limit is 5mg/L.*
  - *On April 8 2017, fecal coliform concentration was measured at 48000 CFU/100ml and the maximal limit is 1000CFU/100ml.*
  - *On May 1 2017, oil and grease concentration was measured at 6mg/L and the maximal limit is 5mg/L.*
  - *On July 24 2017, oil and grease concentration was measured at 13 mg/L and the maximal limit is 5mg/L.*
  - *On July 17, August 7, September 4, October 2 and October 30 2017, unusual low pH levels were measured. Confirmed by the laboratory, these low levels were due to sampling errors. Preservative (acid) was*

*found by the laboratory in the bottles used to measure the pH. The pH was reverified by the laboratory for 2 of the 5 events in different bottles coming from the same sampling events and the pH was at normal levels. The laboratory could not use these results as official ones since the bottles in which they reverified the pH had been frozen. In attachment, a letter from the laboratory confirming this reverification.*

- *On December 18 2017, oil and grease concentration was measured at 6mg/L and the maximal limit is 5mg/L.*

g. Any revisions to the Spill Contingency Plan, Water Management Plan, Waste Management Plan, Quarry Management Plan, Abandonment and Restoration Plan, as required by Part B, Item 12, submitted in the form of an Addendum;

Part B, item 12. The Licensee shall review the Plans referred to in this Licence, as required by changes in operation and/or technology, and modify the Plan accordingly. Revisions to the Plans shall be submitted in the form of an Addendum to be included with the Annual Report.

- *Please see in attachment the update of the Waste Management Plan and of the Quarrying Management Plan for Eskers 7-7B and Quarry 1.*

h. An updated estimate of the current Meadowbank Advanced Exploration Project restoration and liability, as required under Part B, Item 2, based upon the results of the restoration research, project development monitoring, and any modifications to the site plan;

- *No modification to the estimate was done in 2017.*

i. A summary of drilling/trenching activities and progressive reclamation of drill/trench sites;

- *No trenching was conducted in 2017.*
- *Restoration of drill sites includes the removal of any drill casing materials or the casings cut off at ground level except for the casings for which it is the intent to continue drilling in existing casings.*

j. Report all artesian flow occurrences as required under Part F, Item 7;

- *No artesian flow occurrences encountered in 2017.*

k. A description of all progressive and or final reclamation work undertaken, including photographic records of site conditions before, during and after completion of operations;

➤ *No reclamation works were done in 2017.*

l. A summary of any specific studies or reports requested by the Board, and a brief description of any future studies planned or proposed;

➤ *No new studies or reports were requested by the Board.*

m. A summary of public consultation/participation, describing consultation with local organizations and residents of the nearby communities, if any were conducted;

➤ *Presentations were conducted and included information on the Nunavut exploration projects.*

○ *A discussion with the hamlet of Chesterfield that was conducted in February 2017 included information on the exploration projects.*

○ *A meeting with the Baker Lake Hunters and Trappers Organization was conducted in March 2017 concerning the exploration projects.*

○ *A meeting with the community of Rankin Inlet was conducted in March 2018 concerning the exploration projects.*

➤ *Presentations and consultations concerning the Amaruq project mainly in regard of the Whale Tail deposit were also conducted as the project was presented in public hearing.*

n. Any other details on water use or waste disposal requested by the Board by the 1st of November of the year being reported.

➤ *Following the inspection of July 12<sup>th</sup> 2017, the inspector requested that AEM provides a date of completion for the contaminated soil being stored temporarily at the Amaruq exploration camp.*

○ *The contaminated soil was transported from the Amaruq exploration camp to the Meadowbank mine landfarm in September and October 2017. More than 250 tons were transported using dump trucks on the Amaruq exploration access road.*

Other details requested by the inspector:

- *Following the inspection of the site on July 12 2017, the inspector requested that AEM provides more information regarding the corrective measures taken to address the hydrocarbon transfer from the barge to Whale Lake in the annual report.*
- *To limit the risks related to hydrocarbon use and transfer when drilling on the barge, Agnico Eagle installs turbidity curtains and hydrophobic absorbent booms all around the barge during the drilling operation. With these measures, the risks related to hydrocarbon spilling into water are limited. If a spill were to leak outside of the barge, it would be contained inside a limited area where it can be recovered. Following the inspector's comments, increase of environmental inspections frequency by technicians was done to ensure the cleanliness of the barge and the application of the procedures.*