



Aboriginal Affairs and  
Northern Development Canada

Affaires autochtones et  
Développement du Nord Canada

*Your file - Votre référence*  
8BC-AEA----

May 19, 2015

*Our file - Notre référence*  
IQALUIT-#916835

Phyllis Beaulieu  
Manager of Licensing  
Nunavut Water Board  
GJOA HAVEN, NU X0E 1J0

**Re: Aboriginal Affairs and Northern Development Canada Review of Agnico Eagle Mines Ltd Application for a New Type B Water Licence, No. 8BC-AEA----**

Dear Ms. Beaulieu:

Thank you for your email of April 16, 2015, concerning the above mentioned application. A memorandum is provided for the Board's consideration. Comments and recommendations have been provided pursuant to Aboriginal Affairs and Northern Development Canada's mandated responsibilities under the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* and the *Department of Indian Affairs and Northern Development Act*.

Please do not hesitate to contact me by telephone at 867-975-4555 or email at [David.Abernethy@aandc-aadnc.gc.ca](mailto:David.Abernethy@aandc-aadnc.gc.ca) for further information.

Sincerely,

David Abernethy  
Regional Coordinator  
Water Resources Division  
Resource Management Directorate  
Aboriginal Affairs and Northern Development Canada  
IQALUIT, NU X0A 0H0

Encl.

c.c.: Andrew Keim, A/Manager, Water Resources Division, AANDC Nunavut  
Erik Allain, Manager of Field Operations, AANDC Nunavut  
Christine Wilson, Water Resources Officer, AANDC Nunavut  
Courtney Cox, Water Resources Technician, AANDC Nunavut  
Robin Ikkutisluk, Administrative Assistant, NWB



## Memorandum

To: Phyllis Beaulieu, Nunavut Water Board

From: David Abernethy, Aboriginal Affairs and Northern Development Canada

CC: Andrew Keim (AANDC), Erik Allain (AANDC), Christine Wilson (AANDC), Courtney Cox (AANDC), and Robin Ikkutisluk (NWB)

Date: 2015

**Re: New Type 'B' Water Licence Application, No. 8BC-AEA----**

Applicant: Agnico Eagle Mines Ltd  
Project: Amaruq Exploration Access Road  
Region: Kivalliq

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Comments:

### A. Background

On April 16, 2015, the Nunavut Water Board (NWB) provided notification of Agnico Eagle Mines Ltd's ("AEM") application for a new type B water licence, No. 8BC-AEA----, for the construction, operation, and eventual closure of a 62.5 km single lane gravel access road that would connect the Meadowbank mine to the Amaruq Property. Agnico Eagle Mines Ltd are requesting the use of up to 299 m<sup>3</sup> of water per day for dust suppression (if needed) and permission to manage/dispose wastes generated by project activities (miscellaneous solid waste, waste oil, and contaminated soil).

The Amaruq Property (408 km<sup>2</sup>) is located on Inuit Owned Land approximately 150 km north of the Hamlet of Baker Lake and 50 km northwest of the Meadowbank mine. The construction of an access road is required for safe and efficient year-round transportation of fuel, equipment, supplies, and personnel. Exploration activities as well as a winter access road are licensed under a separate type B water licence, No. 2BE-MEA1318.

The access road will be constructed on both Crown Land and Inuit Owned Land. Aggregate material will be acquired from the Vault open pit (Meadowbank Mine) and seven borrow eskers that are located along the planned route. A total of 40 watercourse crossings have been identified. Agnico Eagle Mines Ltd are planning to construct three bridges, eight large open bottomed arch culverts, 20 corrugated road culverts, and several localized drain culverts.

The following management plans were included in the application:

1. Emergency Response and Spill Contingency Plan;
2. Road Management Plan; and
3. Conceptual Closure and Reclamation Plan

## **B. Results of review**

On behalf of Aboriginal Affairs and Northern Development Canada (AANDC), the following comments and recommendations are provided:

### **Issue No. 1: Ten Year Licence Term**

Source: *General Water Licence Application Form*. Section 25.

Comment: AEM are requesting a 10 year licence term.

Recomm: Provided that there will be opportunities to revisit reclamation cost estimates and water licence reclamation security requirements throughout the licence term, it is reasonable to issue a 10 year water licence for the construction, operation, and eventual closure of the Amaruq Exploration Access Road. AEM are experienced in the construction and operation of all-weather access roads within the territory (Meadowbank and Meliadine Gold Projects).

### **Issue No. 2: Monitoring of Borrow Pit Seeps**

Source: Agnico Eagle Mines Ltd. *Amaruq Exploration Access Road – Road Management Plan*. March 13, 2015. Section 7.5

Comment: Section 7.5 of the Road Management Plan states that, “any significant seeps originating from borrow pits that are likely to reach receiving waters will be sampled and analysed for a full suite of parameters.”

Recomm: Annual Reports provided by AEM should include descriptions of any seeps originating from borrow pits, water quality monitoring results, and measures taken to prevent the flow of seep water into nearby water bodies.

### **Issue No. 3: Engineering Drawings for Access Road Construction and Development of Quarries and Borrow Sources**

Reference: Agnico Eagle Mines Ltd. *Amaruq Exploration Access Road – Road Management Plan*. March 13, 2015. Section 1.1.

Agnico Eagle Mines Ltd. *Amaruq Exploration Access Road – Concordance Assessment to Nunavut Water Board Supplemental Information Guideline General Water Works (M1) Modified for Nunavut Impact Review Board Part 2 Project Specific Information Requirements Form*. March 16, 2015.

Agnico Eagle Mines Ltd. *Application for a Type B Licence to Construct the Amaruq Exploration Access Road - Main Application Document*. March 2015. Section 3.2.

Comment: Section 1.1 of the submitted Road Management Plan states that Amaruq Exploration Access Road is anticipated to be 62.5 km in length. The road surface will be 6.5 metres

wide and there will be 3 bridges, 8 large open bottomed arch culverts, 28 corrugated round culverts to pass watercourse crossings, and many other localized drainage culverts to prevent erosion, reduce thaw susceptibility and washout of the road during freshet. Aggregate materials will originate from the Vault open pit (quarry) and seven borrow areas.

Recomm: The water licence should include terms and conditions pertaining to the submission of drawings and plans stamped by Professional Engineers licensed to practice in Nunavut for the access road's construction, including stream crossings and the development of quarry and borrow areas.

In addition to being filed with Annual Report submissions:

1. final plans and construction drawings should be provided 60 days prior to construction; and
2. final as-built drawings and construction drawings should be provided within 90 days following the construction of the access road

These deliverables and timelines are consistent with commitments made by AEM in Item No. 4-36 of their Concordance Assessment (final plans and construction drawings) and Section 3.2 of their Main Application Document (final as-builts and construction drawings).

#### **Issue No. 4: Include Geotechnical Engineer Inspection Reports in Annual Report Submissions**

Reference: Agnico Eagle Mines Ltd. *Amaruq Exploration Access Road – Road Management Plan*. March 13, 2015. Section 8

Comment: Section 8 of the Road Management Plan states that the road will be subject to annual geotechnical inspections by qualified engineers.

Recomm: Annual Reports provided by AEM should include the results of annual geotechnical inspections of the access road, including stream crossings and quarry and borrow areas. Additionally, AEM should confirm what measures they are taking to address inspection findings.

#### **Issue No. 5: Reclamation Cost Estimate**

Reference: Agnico Eagle Mines Ltd. *Amaruq Exploration Access Road – Conceptual Closure and Reclamation Plan*. February 2015. Section 4

Comment: AEM's reclamation cost estimate for the Amaruq Exploration Access Road is \$1,693,010. This amount was calculated using the RECLAIM model, Version 7.0. A summary table that includes the breakdown of capital costs and indirect costs is provided in the Conceptual Closure and Reclamation Plan. This year, the department plans to produce a reclamation cost estimate for the access road in addition to an estimate for the Meadowbank Mine Site.

Recom: The water licence should include a term and condition that would allow for AEM's reclamation cost estimate to be assessed prior to the access road's commissioning. The department would provide an evaluation of AEM's reclamation cost estimate.

**Issue No. 6: Conceptual Closure and Reclamation Plan**

Reference: Agnico Eagle Mines Ltd. *Amaruq Exploration Access Road – Conceptual Closure and Reclamation Plan*. February 2015. Section 4.

Comment: Included in the application is a Conceptual Closure and Reclamation Plan. This plan is considered to belong to the first of three phases in closure plan development as described in [AANDC's 2007 Mine Site Reclamation Guidelines for the Northwest Territories](#):

- Preliminary Closure and Reclamation Plan;
- Interim Closure and Reclamation Plan; and
- Final Closure and Reclamation Plan

Recomm: The licence should require AEM to provide an Interim Closure and Reclamation Plan to the NWB for approval within two to three years of licence issuance. This plan should be revised whenever there is a change to the project design or no later than every five years. A Final Closure and Reclamation Plan should be submitted to the NWB for approval at least one year prior to the project's closure. Every closure and reclamation plan submission, regardless of its phase, should be accompanied by a revised reclamation cost estimate.

Prepared by David Abernethy and Courtney Cox