



Water Resources Division
Nunavut Regional Office
Iqaluit, NU X0A 0H0

November 24, 2016

NWB File:
2AM-MEL1631

Karen Kharatyan
Manager of Licensing
Nunavut Water Board
PO Box 119
Gjoa Haven, NU X0B 1J0

INAC File:
CIDM: 1113215

Re: Indigenous and Northern Affairs Canada's Review of Addendums to Water Management Plan and Borrow Pit and Quarries Management Plan for Agnico Eagle Mines Limited's Meliadine Gold Project, Type 'A' Water Licence No. 2AM-MEL1631

Please be advised that Indigenous and Northern Affairs Canada (INAC) has completed a review of the above noted construction plans.

In conducting this review, INAC staff has reviewed all documents on the Nunavut Water Board FTP site relating to the construction plans for the culverts, as well as the applicable Water Licence, 2AM-MEL1631. Attached is a Technical Review Memorandum for your consideration.

Please feel free to contact me at (867) 975-4282 or by email at ian.parsons@aandc.gc.ca or Amjad Tariq at (867) 975-3878 or by email at amjad.tariq@aandc.gc.ca should you have any questions or comments.

Sincerely,

Original signed by

Ian Parsons
Regional Coordinator B.Sc
Indigenous and Northern Affairs Canada

Cc. Scott Burgess, Manager, Water Resources Division – INAC, Nunavut Regional Office (NRO)
Erik Allain, Manager, Field Operations - INAC, NRO



Memorandum

To: Karén Kharatyan, Manager of Licensing, Nunavut Water Board

From: Amjad Tariq, Regulatory and Science Advisor, Water Resources Division, INAC
Ian Parsons, Regional Coordinator, Water Resources Division, INAC

Date: November 24, 2016

Re: **Indigenous and Northern Affairs Canada's Review of Addendums to Water Management Plan and Borrow Pit and Quarries Management Plan for Agnico Eagle Mines Limited's Meliadine Gold Project, Type 'A' Water Licence No. 2AM-MEL1631**

Licence: 2AM-MEL1631
Licensee: Agnico Eagle Mines Ltd
Project: Meliadine Gold Mine
Region: Kivalliq

BACKGROUND

On November 03, 2016, the Nunavut Water Board (Board or NWB) requested that interested parties review the addendums to Water Management Plan and Borrow Pit and Quarry Management plan submitted by Agnico Eagle Mines Limited for its Meliadine Gold Mine project.

Interested parties were asked to provide comments by November 24, 2016.

RESULT OF REVIEW

On November 15, 2016, the Board advised the Regional Coordinator, INAC via email that only addendums to the plans are to be reviewed. The following document has been reviewed.

- Addendums to Water Management Plan and Borrow Pits and Quarries Management Plan (IQA # 1113210)
- INAC has no comment on the Addendum to the Water Management Plan
- INAC has one comment on the Addendum to the Borrow Pits and Quarries Management Plan



The following comments and recommendations have been prepared.

1. Addendum to Borrow Pit and Quarries Management Plan

Regulatory Authority:	Nunavut Water Board	No. INAC 1
References:	<ul style="list-style-type: none">Addendum to Borrow Pits and Quarries Management Plan Section 2.2 pdf page 13	
Issue	<p>The Licensee states that,</p> <p><i>“While ARD/ML testing is a measure to avoid using questionable road and pad building materials, water quality monitoring of seeps from quarries and borrow pits provides information on possible impacts on the environment (e.g., water and sediment quality) should the water reach any nearby waterbodies. A buffer of at least 31 m of undisturbed land will be maintained between quarries/borrow pits and waterbodies when practicable. If not possible, Agnico Eagle will seek approval from the Board. Best management practices will prevent direct drainage. However, any significant seeps originating from the borrow pits or rock quarries likely to reach receiving waters will be sampled and analyzed for a full suite of water quality parameters. Any problematic water will be directed away from waterbodies, or held if possible. If necessary, silt curtains will be used to control suspended sediments in water seeping from the quarries/borrow pits.”</i></p>	
Rationale:	<p>Acid Rock Drainage (ARD) and Metal Leaching (ML) testing for materials from quarries and borrow pits is required to predict potential impacts of seepage from these sources to the nearby water bodies.</p> <p>INAC is concerned that at least 31 m of undisturbed land should be maintained between quarries/borrow pits and the normal high water mark of any waterbodies to protect the nearby waterbodies.</p> <p>INAC is concerned about the possible contamination of nearby waterbodies due to seepage from quarries and borrow pits.</p>	
Recommendation:	<p>INAC request the Licensee to</p> <ol style="list-style-type: none">1) Conduct Acid Rock Drainage (ARD) and Metal Leaching (ML) testing for materials from quarries and borrow pits and provide results to the Board for review.2) Take necessary steps to ensure at least 31 m of undisturbed land is between quarries/borrow pits and the normal high water mark of any	



	<p>water bodies.</p> <ol style="list-style-type: none">3) Sample, test and analyze seepage from quarries and borrow pits (water quality) to ensure that water is of a quality that will not impact the environment and is within license requirements (if applicable).4) Hold and treat (if necessary) the contaminated water originating from quarries and borrow pits to prevent water contamination in the nearby water bodies.
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