Your file - Votre référence
2AM-MEL1631

August 22, 2016

Our file - Notre référence
IQALUIT-#1093025

Ida Porter
Licence Administrator
Nunavut Water Board
P.O. Box 119
Gjoa Haven, NU X0B 1J0

Sent via email: licensing@nwb-oen.ca

Dear Ms. Porter,

Re: Indigenous and Northern Affairs Canada's Review of Construction Drawing Water Treatment Unit for Agnico Eagle Mines Limited's Meliadine Gold Project, Part D, Item 1 and 2 of Type 'A' Water Licence No. 2AM-MEL1631

Thank you for the Nunavut Water Board's August 11, 2016 notice regarding the above mentioned construction plan.

A memorandum is provided for the Nunavut Water Board's consideration. Comments and recommendations have been provided pursuant to Indigenous and Northern Affairs 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 867-222-1008 or email at Amjad.Tariq@aandc-aadnc.gc.ca for further information.

Sincerely,

Amjad Tariq
Regulatory and Science Advisor
Water Resources Division
Resource Management Directorate
Indigenous and Northern Affairs Canada
IQALUIT, NU X0A 0H0

cc. Ian Parsons, Acting Manager, Water Resources Division, INAC
Andrew Keim, Acting Manager, Field Operations, INAC

Memorandum

To: Ida Porter, Licensing Administrator, Nunavut Water Board

From: Amjad Tariq, Regulatory and Science Advisor, Water Resources Division, Indigenous and Northern Affairs Canada (INAC)

Date: August 22, 2016

Re: **Indigenous and Northern Affairs Canada's Review of Construction Drawing Chemical Treatment Unit for Agnico Eagle Mines Limited's Meliadine Gold Project, Part D, Item 1 and 2 of Type 'A' Water Licence No. 2AM-MEL1631**

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

BACKGROUND

On August 11, 2016, the Nunavuat Water Board (Board or NWB) requested that interested parties review the documents for chemical treatment unit submitted by Agnico Eagle Mines Limited for its Meliadine Gold Mine project as a requirement of Part D, Item 1 and 2 of the Water Licence 2AM-MEL1631.

Interested parties were asked to provide comments by August 22, 2016.

RESULT OF REVIEW

The following documents for Meliadine gold project have been reviewed.

- TetraTech Industries Inc. and ASDR Environment. Chemical Treatment for Lake Dewatering to Environment, Meliadine Project, Nunavut, August 2016 (CIDM, IQA # 1093109)
- Water Management Plan, Meliadine Gold Project ,Version 2, June 2016 (CIDM, IQA # 1093108)

The following comments and recommendations have been prepared.

Regulatory Authority:	Nunavut Water Board	No. INAC 1
References:	• TetraTech Industries Inc. and ASDR Environment. Chemical Treatment for Lake Dewatering to Environment, Meliadine Project, Nunavut, August 2016 Section 2.1 Water Management Strategy Page 3, pdf page 6 Section 2.2 Chemical Treatment Unit Page 3, pdf page 6 • Water Management Plan, Meliadine Gold Project, Version 2, June 2016 Section 4.4.3- Water Management for Tailings Storage Facility (TSF) Page 26, pdf page 39 Section 4.4.4- Water Management for Waste Rock Storage Facilities (WRSFs) Page 26, pdf page 39	
Rationale:	<u>TetraTech Industries Inc. and ASDR Environment. Chemical Treatment for Lake Dewatering to Environment, Meliadine Project, Nunavut, August 2016</u> In section 2.1, the Licensee states that, 'To facilitate infrastructure construction and surface contact water management, H17 pond will be dewatered under the water management plan……..be discharged into Meliadine Lake based on License A and Metal Mine Effluent Regulations (MMER) discharge permissible limits.' In section 2.2, the Licensee states that, 'the main parameter that could require chemical treatment is Total Suspended Solids (TSS)' <u>Water Management Plan, Meliadine Gold Project, Version 2, June 2016</u> In section 4.4.3, the Licensee states that, • 'Seepage water and runoff from the TSF within the catchment of Pond H17 will be diverted to CP1 via Channel 1 (Figure 3.5); • The seepage water and runoff from the TSF within the catchment of Lake B7 will be diverted and collected in CP3 via Channel 3 (Figure 3.6); and • The collected water in CP3 will be pumped to the area of the partially drained Pond H13, and then be diverted to CP1 via Channel1, where the contact water will be treated by the WTP prior to discharging to outside environment.' In Section 4.4.4, the Licensee states that, • 'The collected water in CP4, CP5, and CP6 will be pumped to CP1, where the contact water will be treated by the WTP prior to	

	discharging to outside environment.' INAC notes that the Licensee has made a commitment in its water management plan to treat the collected water containing different contaminants by a water treatment plant before discharging it to the environment. In addition to the TSS, the collected water may contain elevated concentration of the other parameters listed in the Water Licence (2AM-MEL1631) and MMER. The proposed system is capable of removing TSS only. The details on the treatment system (s) to meet licence criteria and MMER have not been provided.
Recommendation:	The Licensee should provide details on water treatment technologies to remove all the contaminants of concern (other than TSS) to meet licence criteria and MMER before discharge in to Meliadine Lake. Depending on the concentration of the other contaminants in the collected water, contaminant removal efficiency of the proposed treatment system (s) for different contaminants should also be provided by the Licensee in the detailed design of water treatment unit (s).