October 5th, 2022

Richard Dwyer
Manager of Licensing
Nunavut Water Board
P.O Box 119
Gjoa Haven, Nunavut
X0B 1J0

**RE: Meliadine Mine CP6 Ramp Redesign for water licence 2AM-MEL1631**

Dear Mr. Dwyer,

Agnico Eagle Mines Limited (Agnico Eagle) thanks the Nunavut Water Board (NWB) for the opportunity to address interveners comments on the *Design Report for the CP6 Ramp Redesign* submitted by Agnico Eagle to the NWB on August 25th, 2022.

Please find attached Agnico Eagle's answers to the recommendations and comments contained in the below documents, shared by the NWB on September 28th and October 3rd, 2022, respectively:

*220916 2AM-MEL1631 MEM-CP6 Ramp Redesign-IFU CIRNA Comments-IMLE*
*220929 2AM-MEL1631 MEM-CP6 Ramp Redesign-IFU KIA Comments-IMLE*

Should you have any questions or require further information, please do not hesitate to contact us.

With our best regards,

Anne-Laurence Paquet
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Compliance Specialist

## Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC)

### CIRNAC 1 – Thaw Settlement and Erosion Concern

Comment

During the course of its 2021 Geotechnical Inspection, AEM's consultants, Tetra Tech, reported that thaw settlement and erosion were observed in the area between WRSF3 and CP6. CIRNAC is concerned that construction activities associated with the redesigned access ramp for CP6 (to fully extend to the bottom of the collection pond), might directly or indirectly worsen the existing structural performance problem occurring in the area between CP6 and WRSF3, resulting in an increase in the previously observed thaw settlement and erosion issue.

CIRNAC notes that AEM did not include (as part of the construction steps described in Section 4.0 of the CP6 Ramp Redesign report), measures to mitigate compromised structural performance (as expected) during and/or after construction activities related to the redesigned access ramp for CP6. Even so, no detailed measures were provided for sedimentation or erosion control, hence AEM states:

*"The construction steps and methodology for the CP6 ramp extension include: Pumping CP6 down as much as practical to minimize total suspended solids resulting from placing materials in CP6. No other sedimentation or erosion controls are required"*

Recommendation

(R-01) CIRNAC recommends that AEM:

a) Continue to monitor soft ground conditions between CP6 and WRSF3 to determine if additional waste rock is needed to mitigate associated risks resulting from construction activities associated with the access ramp extension work.

b) Provide detailed measures for sedimentation or erosion control for CP6 and the area between WRSF3 and CP6.

Agnico Eagle Answer

a) Agnico Eagle thanks CIRNAC for their comment. As per Agnico Eagle's answers to the NWB Technical Review of the 2021 Meliadine Annual Report (CIRNA-9, September 9th, 2022), Agnico Eagle will keep monitoring the localized settlement between WRSF3 and CP6 and carry out repairs as needed.

b) Agnico Eagle thanks CIRNAC for their comment and would like to note the ramp is on the opposite side of the area of concern. Therefore, there will be no impact from the ramp construction (on the north side of CP6) on the WRSF3 side (south of CP6).

There is no foreseen settlement concern due to the bedrock foundation, and no erosion concern of the ramp due to the rock material. Agnico Eagle is monitoring the CP6 area and no additional settlement or erosion has been observed.

**CIRNAC 2 – Quality Assurance and Quality Control Concern**

Comment

In Section 4.0 of the CP6 Ramp Redesign Report, AEM states that, *"The ramp extension and safety berm will be constructed of clean rockfill material that will be sourced from mine development. The clean rockfill will be free from snow, ice, frozen chunks, organic matter, and debris and can have a wide variation of gradation with a maximum particle size of 600 mm. The clean rockfill will be non-potentially acid generating (NPAG)"*

Contrary to the statement above that the clean rockfill will be non-potentially acid generating (NPAG), AEM further states that the quality assurance and quality control measures for the CP6 ramp redesign construction activities will only be validated by visual observation of the works and the construction materials that will be used by Agnico Eagle (see Section 4.0 of the CP6 Ramp Redesign Report, Bullet #5).

CIRNAC requests that AEM confirm if it plans to validate the NPAG status of the sourced rockfill by visual observation or by geotechnical analysis.

In accordance with Part D, Item 2 (c) of Water Licence 2AM-MEL1631, AEM is required to provide the Geotechnical approval of all Waste Rock sources to ensure that the materials are safe and would not contaminate the ground water and/or other water bodies within the vicinity of CP6 via the process of "Metal Leaching".

Recommendation

(R-02) CIRNAC recommends that AEM provide information confirming that the source(s) of the Waste Rock fill materials to be used in the construction of the CP6 Ramp Extension have been approved by a Geotechnical Engineer and that the Acid Rock drainage and Metal Leaching characteristics of the waste rock sources will remain within acceptable standards.

Agnico Eagle Answer

As per the CP6 Ramp Redesign Report (Section 4), the waste rock to be used for construction will be sourced from open pit waste rock stockpiles and have a maximum particle size of 600 mm. Material to be used will be approved by a Geotechnical Engineer from Agnico Eagle's Engineering Department.

Geochemical monitoring is conducted on mined waste rock as per the Mine Waste Management Plan and as per the MEND (2009) recommendations. As detailed in the 2021 Annual Geochemical Report submitted as part of the Meliadine Gold Mine 2021 Annual Report, all Open Pit waste rock samples collected in 2021 (from Tiriganiaq Open Pits 1 and 2 and Containment Pond 2) showed Neutralization Potential Ratios (NPR) greater than 2, indicating non-PAG. Geochemical monitoring continued in 2022 and results received so far for Open pit waste rock samples are classified as non-PAG. Findings are consistent with predictions that the majority of operational waste rock would be non-PAG and that ARD potential is low.

For metal leaching and as detailed in the 2021 Geochemical Report, it was predicted by Golder (2014) to be low enough that management of waste rock to inhibit leaching was not required. However, based on project screening studies, arsenic was determined to be the main element of interest and analysis of this element (and all regulated elements) were part of operational monitoring since mining began. To ensure arsenic concentrations are within project predictions, results are compared against average and maximum arsenic concentrations reported by Golder (2014). The majority of solid phase arsenic concentrations of 2021 and 2022 Open Pit waste rock samples fall within or below the average concentration (of 218 mg/kg). All 2021 and 2022 samples collected to date are below the maximum concentration (of 8000 mg/kg) reported by Golder (2014).

Based on the above, Agnico Eagle is confident the waste rock material that will be used for construction of the CP6 Ramp redesign will meet acceptable standards with regards to ARD/ML potential.

Geochemical monitoring for operational waste rock, tailings and other excavated or construction material continues in 2022 and results are reviewed internally as they become available to ensure there is no risk to the receiving environment.

## Kivalliq Inuit Association (KivIA)

Comments

- Upon completion of the construction can the proponent provide information on which of the Waste Rock Storage facilities, and/or Open Pits were used to source the clean rockfill, and
- Upon completion of the construction can the proponent provide information on which of the amount and source(s) which were used to provide the finer road surfacing material that will be required for the running surface of the ramp extension.

Agnico Eagle Answer

Agnico Eagle thanks KivIA for their comments.

- The non-PAG material will be sourced from Waste Rock Storage Facility 3 (WRSF3), which was originally mined from Tiriganiaq Open Pit 2.
- The road surface material (non-PAG) will come from the crushing of waste rock from Tiriganiaq Open Pit 1. The amount of material used will be provided in the final As-Built report.