AGNICO EAGLE
MELIADINE

January 8th, 2026

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

RE: *Meliadine Mine CP8, CP8 Thermal Berm, Channel 13 and Channel 14 Design Report and Drawings for 2AM-MEL1631 water licence*

Dear Mr. Dwyer,

Agnico Eagle Mines Limited (Agnico Eagle) thanks the Nunavut Water Board (NWB) for the opportunity to address comments received for Meliadine Mine CP8, CP8 Thermal Berm, Channel 13 and Channel 14 Design Report and Drawings for 2AM-MEL1631 Water Licence.

The following information and comments are intended to address comments outlined in the below referenced letter.

- 251216 2AM-MEL1631 Design Report for CP8, CP8 Thermal Berm, Channel13, Channel 14 KIA Comments-IMLE
- 251216 2AM-MEL1631 Design Report for CP8, CP8 Thermal Berm, Channel13, Channel 14 ECCC Comments-IMLE

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

With my best regards,

AGNICO EAGLE

Jade Robitaille | Compliance Counselor
jade.robitaille@agnicoeagle.com Direct 819.759.3555
Agnico Eagle Mines Limited - 93, rue Arseneault, Suite 202 - Val d'Or
Canada J9P 0E9
agnicoeagle.com

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Kivalliq Inuit Association (KivIA)

KivIA-1: Water Discharge

Comment

In the Adaptive Management Plan, contact water collected in CP3, CP4, and CP5, is prioritized to the saline management system for discharge to Itivia Harbour. CP8 will be used to collect runoff from the TSF expansion, and it is expected that, once tailings deposition begins, quality of the collected water will be similar to that of CP3. Once tailings deposition in the expanded TSF begins, CP8 should also be prioritized for discharge to Itivia Harbour.

Agnico Eagle Answer

As per the documentation supporting the recently approved modification of the 2AM-MEL1631 licence (Shallow Pump Underground Development within Permafrost and Water Storage in Pits), CP8 (identified as CP2.5 in the application) will be dewatered to the WES03 open pit once tailings deposition begins in the expanded TSF. Water from WES03 will then be discharged via the waterline to Itivia Harbour.

KivIA-2: 10% contingent storage capacity

Comment

The required pond storage capacity for CP8 is 64,000 m3. The design storage capacity for CP8 is 69,823 m31, which it states “provides 10% of the contingent storage capacity under Inflow Design Flood (IDF).” However, the current design storage capacity only provides 8% contingent storage capacity.

Agnico Eagle Answer

Agnico Eagle apologizes for any confusion regarding the rounding of the contingency figure in the design report. The CP8 design capacity is 69,823 m³, which exceeds the 64,000 m³ IDF storage requirement by 5,823 m³. This represents approximately 9.1% contingency relative to the required IDF storage, which was rounded to ~10% in the report. If expressed as a fraction of the total provided capacity, the contingency equals ~8.3%.

KivIA-3: Open Talik

Comment

There is an “Open Talik” beneath Lake B7. The KivIA requests that AEM provide an updated Figure 3 which shows the location of the Open Talik relative to all the proposed infrastructure. In addition, the KivIA requests that AEM provide comments on any potential impact of saline groundwater related to the Open Talik on the proposed B7 West, B7 North and CP8 thermal berms.

Agnico Eagle Answer

The lateral extent of open taliks is limited to the deepest parts of the lake and varies with lake size, shape, and depth. For conservatism, the footprint of Lake B7 can be considered the maximum potential lateral extent of the open talik.

Figure 3 shows the locations of as-built boreholes within the planned footprint of B7 West, B7 North, and CP8 thermal berms. Borehole results (Appendix A) and observations of frozen material and bedrock confirm that these berms are found on permafrost, not talik. Readings from installed Ground Temperature Cables (GTC) by Tetra Tech (2025) further support the presence of permafrost beneath these structures.

Groundwater recharge and flow are driven by lake elevation differences (high-lake to low-lake). Based on its elevation, the B7 open talik is dominated by a deep groundwater flow regime towards Meliadine Lake.

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Environment an Climate Change Canada (ECCC)

ECCC-1: Excess ice in boreholes

Comment

In Section 2.6 of the Design Report, the Proponent states that “A layer of ice-rich overburden (silt or sand) has been observed in some of the boreholes drilled. Overburden soils with excess ice (Vs, Vx, and Vr) were observed in the non-destructive boreholes. The estimated percentage (by volume) of the excess visible ice ranged from 2% to 20% in the overburden soils.”

In all the sections and tables referenced above, the Proponent indicated the presence of excess ice in several boreholes. In some cases the percentage of excess ice in the overburden soils was greater than 25%; however, the report did not include mitigation measures should the presence of excess ice become a problem after construction.

Recommendation

ECCC recommends the Proponent consider including monitoring programs and mitigation measures should the presence of excess ice in overburden soils become a problem after construction.

Agnico Eagle Answer

The ice rich material is shallow (less than 2m) and therefore will be removed from the footprints of these structures during the construction. The CP and channel excavation is generally greater than 2m. This removes the much of the risk associated with this material to the infrastructure. Permafrost protection is one of the main considerations of design. As such, thermal capping in placed on the berm, on the excavated slopes of the CP, and over the natural ground between the CP and the berm to protect the permafrost. Additionally, there is an access road along the channel on the downslope side that provides many functions, including to insulate and protect the permafrost, thereby keeping the foundation and any ice rich material frozen and less problematic. The only natural ground around these infrastructures not covered with thermal capping is on the up-slope side of the channel. Fill can’t be added to the up-slope side of the channel at this time as it would impede water entering the channel.

Given the above, ice rich material’s impact on the infrastructure is minor and is confined to settlement and/or deformation. Section 8.0 Monitoring and Inspection of the Design report, provides the recommendation for instrumentation installation within the berm and visual inspections of the infrastructure to monitor the performance “in terms of stability, deformation, seepage, and thermal analyses and assessments and for “Early warning of the development of potentially adverse trends such as seepage, deformation, and permafrost degradation.”

CP8 and associated infrastructure will also be part of the annual geotechnical inspection as per the Water Licence.

As detailed in section 8.0 Monitoring and Inspection of the design report, Agnico Eagle will install recommended thermistors (GTCs) at each berm (details of the GTC information are presented in Drawings 65-695-230-34, 65-695-230-049, and 65-695-230-51).

AEM already uses multiple mitigation measure to ensure the integrity of other infrastructure on site. These measures include;

- Regular inspections of the CP's and channels
- Event driven inspections of CP's and channels
- Regular maintenance of CP's and channels
- Extension of thermal capping where required to promote permafrost development and minimize water ponding

It is AEM's opinion that the monitoring recommendations within the design report are sufficient for the effective monitoring of the infrastructure.

ECCC-2: CP8 COLLECTION POND

Comment

As proposed in the Design Report, the CP8 collection pond would be located between Lake B7 and the proposed Tailings Storage Facility (TSF) Expansion, with an adjacent thermal berm and a storage capacity of 69,823 m3. However, the Water Management Plan (v.15B) and Meliadine Mine Water Balance and Water Quality Model (2024 Technical Report) refer to a different CP8 collection pond, located in the footprint of Lake B4, with four associated dikes and a storage capacity of up to 1.1 million m3. This larger version of CP8 appears to be an important element in the water management strategy proposed for the site. The smaller CP8 pond described in the Design Report did not appear to be included in maps provided in the Water Management Plan.

It is not clear if the CP8 pond described in the Design Report is meant to replace the CP8 pond described in the Water Management Plan, or how it will change the site water management strategy, as described in the Water Management Plan and Mine Water Balance and Water Quality Model (2024 Technical Report).

Recommendation

ECCC recommends the Proponent:

a. clarify whether the CP8 pond in the Design Report replaces or is supplemental to the CP8 pond referred to in the Water Management Plan and Mine Water Balance and Water Quality Model (2024 Technical Report);

b. describe how water management will be changed on site; and

c. update the Water Management Plan and the Water Balance and Water Quality Model to integrate the newly proposed water management infrastructure and incorporate changes to previously proposed infrastructure.

Agnico Eagle Answer

a. A revised Water Management Plan (v16) and Water Balance & Water Quality Model were submitted in support of the recently approved Water Licence 2AM-MEL1631 modification for Shallow Pump Underground Development within permafrost and water storage in pits. CP8, as presented in this design report, replaces the collection pond referenced in the previous Water Management Plan and Mine Water Balance & Water Quality Model (2024 Technical Report).

b. Under the approved Water Licence 2AM-MEL1631 modification, CP8 (identified as CP2.5 in the application) will be dewatered to WES03 pit once tailings deposition begins in the expanded TSF. Water from WES03 will be discharged via the waterline to Itivia Harbour. Changes to site-wide water management resulting from the removal of CP8 (previously in Water Management Plan v15B) are detailed in the updated Water Management Plan (v16) submitted with the modification application.

c. Updates to proposed water management infrastructure, including new installations and revisions to previously planned structures, are outlined in the Water Management Plan (v16) and the Meliadine Mine Modification Water Balance & Water Quality Model Technical Report (2025). The next Water Management Plan submission (v17) is scheduled for March 2026 to accompany the 2025 Annual Report.

ECCC-3: DESIGN CRITERIA FOR COLLECTION PONDS

Comment

As described in the Design Report, the proposed storage capacity for the CP8 collection pond "meets the most critical of the following cases:

- 3/7 of the equivalent unit runoff during spring freshet for a 1 in 100 return wet year; or
- One 1 in 100 return 24-hour extreme rainfall event."

By comparison, the Water Management Plan, which sets out the design criteria for water management structures, refers to storage capacities of similar-sized collection ponds (CP2, CP3, CP4, CP5, CP6) as "able to manage the surface contact water from their respective catchment area for 3/7 of a 1:100 wet year spring freshet or a 1:1000 return 24-hour extreme rainfall."

It is unclear why a 1:100 return 24-hour extreme rainfall is adequate for CP8, while a 1:1000 return 24-hour extreme rainfall was considered appropriate for similar-sized collection ponds on site. An undersized pond could result in uncontrolled discharge in extreme conditions.

Recommendation

ECCC recommends the Proponent explain why the design criteria for the storage capacity of the CP8 collection pond, as described in the Design Report, differ from the criteria specified for similar-sized collection ponds in the Water Management Plan.

Agnico Eagle Answer

Agnico Eagle confirms that consistent criteria are applied to all CPs. As outlined below, designing based on 3/7 of a 1:100 wet-year spring freshet is more conservative than the other criteria discussed in the Water Management Plan.

CP8 has a designed storage capacity of 69,823 m³. Its design is based on an IDF event equivalent to 3/7 of a 1:100 wet-year spring freshet, corresponding to an 85 mm runoff amplitude (see Table 8 of the design report). Because CP8 is sized for this amplitude, it also accommodates both the 1:100 and 1:1000 return 24-hour extreme rainfall events, which have lower IDF values of 69.2 mm and 71.1 mm, respectively (see Table 1 of the design report).

Agnico Eagle's design approach prioritizes the estimated snowmelt water equivalent during a 1:100 wet-year spring freshet, as this represents a more critical volume than either the 1:100 or 1:1000 24-hour extreme rainfall events.

The CP8 as-built report and future pond design reports will use the same comparison as for previous CP2, CP3, CP4, CP5, CP6 ponds design. The Water Management plan will also be updated this way to ensure consistency.

ECCC-4: DECOMMISSIONING OF THE CP8 COLLECTION POND IMPACTS OF EFFLUENT DISCHARGE ON PHYTOPLANKTON IN MELIADINE LAKE

Comment

The Interim Closure and Reclamation Plan does not discuss decommissioning of a pond at the location described for CP8 in the Design Report. If CP8 continues to hold water in closure and post-closure, surface water quality may be degraded as the pond would primarily collect runoff from the adjacent TSF. Planning for how CP8 will be decommissioned will help to ensure that closure objectives for surface water quality are met at the pond location.

Recommendation

ECCC recommends the Proponent describe how they plan to decommission the CP8 collection pond, as described in the Design Report. If the pond will continue to hold water in closure and post-closure, they should discuss predicted surface water quality and how the pond will be connected with other surface water flow paths in post-closure.

Agnico Eagle Answer

The updated Water Balance and Water Quality Model, submitted in support of the recently approved Water Licence 2AM-MEL1631 modification for shallow pump underground development within permafrost and pit water storage, reflects the revised water management strategy and the inclusion of CP8 pond during active-closure and post-closure phases.

During active-closure phase, TSF contact water reporting to CP8, CP3, CP4, and CP5 sumps, along with TSF runoff to Channel 1, will be pumped to the underground void for permanent storage. Once surface contact water meets aquatic guideline criteria, flows will revert to pre-mining drainage patterns where feasible.

During post-closure phase, CP8 will naturally drain to Lake B7, which will subsequently drain to the Tiri Pits lake system. The updated model forecasts no parameters of concern for Lakes B7 and Tiri Pits in accordance with aquatic guidelines.