



# CIRNAC Comments to NIRB Re: Agnico Eagle Mines Limited's Meliadine Gold Mine Project 2024 Annual Report



Nunavut Regional Office  
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Your file - Votre référence  
11MN034  
Our file - Notre référence  
GCdocs# 138854512

July 02, 2025

Keith Morrison  
Manager, Project Monitoring  
Nunavut Impact Review Board  
P.O. Box 1360  
Cambridge Bay, NU, X0B 0C0  
Via electronic mail to: [info@nirb.ca](mailto:info@nirb.ca)

Dear Keith Morrison,

**Re: Comment Request for Agnico Eagle Mines Limited's Meliadine Gold Mine Project 2024 Annual Report**

On May 21, 2025, as per Section 12.7 of the *Agreement between the Inuit of the Nunavut Settlement Area and Her Majesty The Queen in Right of Canada* (Nunavut Agreement) and the amended Meliadine Gold Mine Project Certificate [No. 006], the Nunavut Impact Review Board (NIRB) requested parties to review Agnico Eagle Mines Limited (Agnico Eagle)'s 2024 Annual Report with respect to effects and compliance monitoring.

Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC) has conducted a review of the 2024 Annual Report and related documents in areas under its mandate and jurisdiction pertaining to effects and compliance monitoring. On this basis, CIRNAC would like to provide the comments below for NIRB's consideration.

CIRNAC appreciates the opportunity to review Agnico Eagle's Meliadine Gold Mine Project 2024 Annual Report and looks forward to working with NIRB and Agnico Eagle throughout any future reviews for this project. Should you have any questions, please do not hesitate to contact Aminul Haque by email at [aminul.haque@rcaanc-cirnac.gc.ca](mailto:aminul.haque@rcaanc-cirnac.gc.ca) or David Abernethy by email at [david.abernethy@rcaanc-cirnac.gc.ca](mailto:david.abernethy@rcaanc-cirnac.gc.ca).

Sincerely,



Richard Bingley  
Manager, Impact Assessment



## 1. **Effects Monitoring**

The Meliadine Gold Mine Project 2024 Annual Report has been evaluated to assess the measurable changes to the valued components under CIRNAC areas of interest, compared to the potential effects that were predicted to result from the development of the Meliadine Gold Mine Project, taking into account the Final Environmental Impact Statement (FEIS), previous years' Monitoring Reports and the requirements included in the Project Certificate (as amended). The assessment considered the following:

- a. Whether the conclusions reached by Agnico Eagle Mines Limited (AEM) in the Meliadine Gold Mine Project 2024 Annual Monitoring Report are valid; and,**
- b. Any areas of significance requiring further supporting information or any changes to the monitoring program which may be required**

Comment Number:	CIRNAC #1
<b>Subject:</b>	<b>Water Line Construction, Commissioning, Discharge Clarifications</b>
<b>Reference:</b>	<ul style="list-style-type: none"> <li>• Meliadine Gold Mine 2024 Annual Report</li> <li>• Appendix 29-18 Water Management Plan</li> <li>• Appendix 29-19 Water Quality and Flow Monitoring Plan</li> <li>• Appendix 29-20 Adaptive Management Plan for Water Management</li> <li>• NIRB Project Certificate No. 006, Amendment 002: Terms &amp; Conditions (T&amp;C) No. 29 Monitor and maintain culverts and other water infrastructure</li> <li>• NIRB 2023-2024 Monitoring Report Meliadine Gold Mine Project</li> </ul>
<b>Issue/Rationale:</b>	<p>The 2023 Annual Report indicated that saline water discharge would commence in 2025. Section 2.1.2.1 of the 2024 Annual Report provides high-level information on waterline construction activities carried out in 2024 and planned activities for 2025, including: <i>"Piping, optic fiber, and earthworks from KM15 to Itivia; Remaining mechanical installation; Directional drilling at Itivia and diffuser installation; and Commissioning."</i> It is unclear what commissioning specifically refers to or when the operation will commence. However, Section 3.2.1 CP1 Water Balance Results notes that key changes are anticipated in 2025 that are not currently reflected in the Water Licence Approval Water Balance and Water Quality Model (WLA WBWQM) results, which include that Commissioning and operation of the Waterline <u>will not occur in 2025</u>.</p> <p>Appendix 29-18, Section 4.1 Key Water Management Activities, Table 12, states that the Planned 2025 Schedule includes: <i>"continued waterline construction and anticipated commissioning of the SETP-WTC."</i> The 2026 Planned Schedule includes: <i>"anticipated waterline commissioning and SETP-WTC discharge through the waterline."</i> Appendix 29-18, Section 4 Water Management Strategy, states that <i>"saline contact water volumes will be stored in Tiriganiaq Pit 2, until SP6 and the waterline are commissioned, and saline water can be treated for discharge to Itivia Harbour"</i>.</p> <p>The above sources provide inconsistent information on the timing of waterline commissioning and discharge, with no details on the reasons for</p>



Comment Number:	CIRNAC #1
	changes to the construction and discharge schedules.
<b>Recommendation:</b>	<p>CIRNAC recommends that AEM clarify the status of the waterline and provide additional details on:</p> <ul style="list-style-type: none"> <li>a) The physical status of the waterline at the 2024 year-end,</li> <li>b) Planned 2025 and 2026 activities,</li> <li>c) Schedules for completion of waterline construction, commissioning, and start of discharge, and</li> <li>d) Expected operational practices (daily, monthly, annual discharge) upon start of discharge at Itivia.</li> </ul>

Comment Number:	CIRNAC #2
<b>Subject:</b>	<b>Marine Discharge - Update on Status of <i>Acartia tonsa</i> (A. tonsa)</b>
<b>Reference:</b>	<ul style="list-style-type: none"> <li>• Meliadine Gold Mine 2024 Annual Report</li> <li>• NIRB Project Certificate No. 006, Amendment 002: Terms &amp; Conditions (T&amp;C) No. 76 Update all relevant plans for the Marine Environment</li> <li>• NIRB 2023-2024 Monitoring Report Meliadine Gold Mine Project</li> </ul>
<b>Issue/Rationale:</b>	<p>The need to discharge significant volumes of saline water, up to 20,000 m<sup>3</sup> per day, into the marine environment is one of the most significant variances from the Final Environmental Impact Statement (FEIS) water management plans and predictions.</p> <p>The inability to comply with Environment and Climate Change Canada (ECCC) requirements for <i>A. tonsa</i> testing has been a critical constraint since 2022 to the planned discharge of saline water to the marine environment at Itivia. Given its importance, it was expected that the 2024 Annual Report would provide an update on this issue.</p> <p>Review of the 2024 Annual Report found only one reference to <i>A. tonsa</i> in Section 7.3.3 Sludge, where AEM states that in 2025, they intend on only commissioning the total suspended solids (TSS) treatment portion of the Saline Effluent Treatment Plant-Water Treatment Complex (SETP-WTC) and that AEM is currently designing a treatment system for ammonia nitrogen, which will replace breakpoint chlorination to meet the Metal and Diamond Mining Effluent Regulations (MDMER) requirements, including acute toxicity testing on <i>A. tonsa</i>.</p> <p>The absence of an update on where AEM stands with regard to being able to comply with the <i>A. tonsa</i> toxicity testing requirements results in significant uncertainty as to AEM's plans and schedules for initiating marine discharge to remove existing stored saline water from TIRI02, plus additional saline water inflows from ongoing and future underground mining.</p>



<b>Comment Number:</b>	<b>CIRNAC #2</b>
<b>Recommendation:</b>	CIRNAC recommends that AEM provide a fulsome update on its efforts to address and comply with <i>A. tonsa</i> toxicity testing requirements.

<b>Comment Number:</b>	<b>CIRNAC #3</b>
<b>Subject:</b>	<b>Saline Water Management and Reclaim Water for Mill Use</b>
<b>Reference:</b>	<ul style="list-style-type: none"> <li>• Meliadine Gold Mine 2024 Annual Report</li> <li>• Appendix 29-18 Water Management Plan</li> <li>• Appendix 29-19 Water Quality and Flow Monitoring Plan</li> <li>• NIRB Project Certificate No. 006, Amendment 002: Terms &amp; Conditions (T&amp;C) No. 32 Site drainage and Silt Control Plan</li> </ul>
<b>Issue/Rationale:</b>	<p>Section 3.1.9 of the 2024 Annual Report states that in 2024, no contact water was reclaimed for milling purposes. It notes that at present, the Reverse Osmosis (RO) Plant is used to <u>treat higher salinity sources</u> of water on site (described in Section 3.9.6 of the Water Management Plan). Thus, the permeate water salinity is not low enough for direct mill water feed, and the previous use of contact water for milling significantly increased tailings salinity.</p> <p>Review of Appendix 29-19, Figure 6, shows that the inflow to the RO plant is saline water from SP1, which receives saline water from SP4 and P3. Review of Section 3.9.6 of Appendix 29-18 states that “<i>a reverse osmosis (RO) treatment plant is used to treat <u>marginally saline runoff water</u> captured by site water management infrastructure that would otherwise be directed to saline water storage. The application of the RO through these means is intended to <u>reduce storage requirements of saline water</u> on site until the Waterline is operational.</i>”</p> <p>By contrast, the Executive Summary of Appendix 29-18 states that contact water from the Underground Mine will be collected in underground storage stopes and sumps, and some will be reused for underground operations. Excess saline contact water will be pumped to different Saline Ponds (SPs) on the surface, and then routed to Tiriganiaq Pit 02 (TIR02) (and then SP6 once constructed). <u>All saline contact water will be eventually conveyed from TIR02 or SP6 to the SETP-WTC prior to discharge to Itivia Harbour via the waterline.</u></p> <p>Based on the above statements, it is unclear whether the RO plant is treating water from higher-salinity sources or marginally saline water. It also appears that RO-treated underground saline water is being discharged to CP1 and thereafter discharged to Meliadine Lake.</p>
<b>Recommendation:</b>	<p>CIRNAC recommends that AEM:</p> <ol style="list-style-type: none"> <li>a) Clarify if, and when, CP1 water has been tested for use as mill makeup.</li> <li>b) Clarify whether the RO plant is treating sources with higher</li> </ol>



Comment Number:	CIRNAC #3
	<p>salinity or those with marginally saline levels.</p> <p>c) Provide details on the saline water sources being treated.</p> <p>d) Clarify if the saline groundwater treated by the RO plant is discharged to CP1 and thereafter discharged to Meliadine Lake.</p>

Comment Number:	CIRNAC #4
<b>Subject:</b>	<b>Lake B7 Arsenic Impacted Water Quality</b>
<b>Reference:</b>	<ul style="list-style-type: none"> <li>• Meliadine Gold Mine 2024 Annual Report</li> <li>• Appendix 29-12 Ore Storage Management</li> <li>• NIRB Project Certificate No. 006, Amendment 002: Terms &amp; Conditions (T&amp;C) No. 30 Aquatic Effects Monitoring Program</li> <li>• NIRB 2023-2024 Monitoring Report Meliadine Gold Mine Project</li> </ul>
<b>Issue/Rationale:</b>	<p>Lake B7 is located west of the Tailings Storage Facility (TSF). Water quality monitoring was conducted in 2024 in Lake B7 in July, August, September, and October as part of the Aquatic Effects Monitoring Program (AEMP). Monitoring results indicate that water quality changes are primarily driven by major ions (calcium, sodium, chloride, and sulphate), arsenic, and barium, with these parameters being the most significantly affected. During the August 2024 sampling, all three arsenic concentrations in Lake B7 exceeded the AEMP Action Level of 18.8 µg/L and two also exceeded the Site-Specific Water Quality Objective (SSWQO).</p> <p>In the AEMP, AEM states that seasonal trends of arsenic concentrations in Lake B7 suggest that increased concentrations may be the result of arsenic release from the sediment.</p> <p>AEM also states that “overall, current arsenic concentrations in Lake B7 pose a low risk of adverse effects to fish and other aquatic life”. CIRNAC finds this statement questionable given the reported exceedances of the SSWQO.</p> <p>CIRNAC notes that the observed arsenic concentrations in the sediment may suggest another source from the mine other than dust.</p>
<b>Recommendation:</b>	<p>CIRNAC recommends AEM:</p> <ol style="list-style-type: none"> <li>a) Carry out a comprehensive investigation into the potential source of arsenic in Lake B7.</li> <li>b) Based on investigation results, develop mitigation plans for the operational mine life.</li> <li>c) Indicate why the 2024 exceedances of the arsenic SSWQO in Lake B7 are not classified as a non-compliance event,</li> <li>d) Carry out a risk assessment of Lake B7 to assess post-closure risks and potential remedial requirements once the water body is reconnected to the surface water environment after being used as</li> </ol>





<b>Comment Number:</b>	<b>CIRNAC #4</b>
	a saline pond (SP6) during operations.

<b>Comment Number:</b>	<b>CIRNAC #5</b>
<b>Subject:</b>	<b>Discrepancies between Predicted and Actual Tailings Neutralization Potential Ratio (NPR)</b>
<b>Reference:</b>	<ul style="list-style-type: none"> <li>• Meliadine Gold Mine 2024 Annual Report</li> <li>• Appendix 9 - 2024 Metal Leaching and Acid Rock Drainage Monitoring Report</li> <li>• NIRB Project Certificate No. 006, Amendment 002: Terms &amp; Conditions (T&amp;C) No. 22 Report on adaptations to the Mine Waste Management Plan and practices based on results obtained through monitoring</li> <li>• NIRB 2023-2024 Monitoring Report Meliadine Gold Mine Project</li> </ul>
<b>Issue/Rationale:</b>	<p>Section 4.2.4 of the Annual Report discusses the acid rock drainage (ARD) potential of the filtered tailings. It notes that monitoring results show that most tailings samples fall within the Uncertain category, with an average neutralization potential ratio (NPR) value of 1.93 for all 2024 samples. Similar to previous years, the average NPR value of the filtered tailings is significantly lower than that predicted in the FEIS (NPR = 2.7).</p> <p>Despite the presence of samples classified as potentially acid generating (PAG) and Uncertain from 2019 to 2024 sampling, AEM believes that the tailings do not pose an ARD risk for the site because the generation of acidic water requires tailings exposure to air and water and sufficient timescales for neutralization potential to be consumed. Sufficiently warm temperatures to facilitate sulphide oxidation at meaningful rates.</p> <p>While CIRNAC appreciates AEM's high level qualitative comments on the potential limiting effects of the site and tailings facility conditions as discussed above, CIRNAC is of the opinion that a rigorous quantitative technical assessment of the potential implications of the lower than predicted NPR value should be undertaken, particularly with respect to closure and long-term post-closure potential metal releases to the environment.</p>
<b>Recommendation:</b>	CIRNAC recommends that AEM undertake a detailed technical analysis of the potential acid rock drainage/metal leaching (ARD/ML) risks associated with the reduced tailings NPR to identify any potential concerns or changes that may be needed as a result of the geochemistry of the TSF. This analysis should also consider the latest Climate Change Forecast and should also consider that saline moisture from the underground ore elevates filtered tailings pore water salinity, as noted in Section 3.1.9 of the 2024 Annual Report.



Comment Number:	CIRNAC #6
<b>Subject:</b>	<b>Tiriganiaq Open Pit #2 (TIRI02) Water Quality Predictions</b>
<b>Reference:</b>	<ul style="list-style-type: none"> <li>• Meliadine Annual Reports (2024, 2023, 2022)</li> <li>• Appendix 5 – Water Balance and Water Quality Modeling Tabular Data</li> <li>• NIRB Project Certificate No. 006, Amendment 002: Terms &amp; Conditions (T&amp;C) No. 26 Analyze Pit Refill Rates</li> <li>• NIRB 2023-2024 Monitoring Report Meliadine Gold Mine Project</li> </ul>
<b>Issue/Rationale:</b>	<p>Section 3.2 of the 2022 and 2023 Annual Reports and their respective appendices summarizing the water balance and water quality modelling tabular data, included figures with water quality measurements and forecasted concentrations of total dissolved solids (TDS), ammonia and radium-226 in Tiriganiaq Open Pit #2 (TIRI02).</p> <p>In reviewing the 2024 Annual Report and Appendix 5, while figures showing observed and predicted volumes of water in TIRI02 are included, water quality figures depicting observed and predicted concentrations of TDS, ammonia and radium-226 have been omitted. The TIRI02 water quality figures help inform current and future site conditions and management decisions and should be included in the Annual Report.</p>
<b>Recommendation:</b>	CIRNAC recommends that AEM reinstate the inclusion of water quality figures with observed and predicted parameter concentrations for TIRI02 in the Annual Report.

Comment Number:	CIRNAC #7
<b>Subject:</b>	<b>Analysis of the Risk of Temporary Mine Closure</b>
<b>Reference:</b>	<ul style="list-style-type: none"> <li>• NIRB Project Certificate No. 006, Amendment 2, Ts&amp;Cs 90 and 97</li> <li>• 2024 Annual Report, Appendix 30</li> <li>• Analysis of the Risk of Temporary Mine Closure (Feb 2019). NIRB Public Registry Identification No. 324985</li> </ul>
<b>Issue/Rationale:</b>	<p>Terms and Conditions 90 and 97 of the amended NIRB Project Certificate for Agnico Eagle's Meliadine Gold Mine address socio-economic considerations associated with a temporary or permanent closure of the mine. T&amp;C 90 concerns the need for Agnico Eagle to undertake an analysis of how communities in the Kivalliq region may be affected by such a closure, with consideration of economic, social, and cultural effects. T&amp;C 97 concerns the need for Agnico Eagle's socio-economic monitoring program to address potential impacts to education and training which may arise during temporary, final and/or post-closure phases.</p>





Comment Number:	CIRNAC #7
	<p>Appendix 30 of the 2024 Annual Report presents a NIRB Project Certificate Tracking Table that shares details on the compliance status of Terms and Conditions and where supporting information can be found within the larger Annual Report or separate submissions to the NIRB. This table makes reference to Agnico Eagle's Analysis of the Risk of Temporary Mine Closure (Feb 2019) for information in support of Terms and Conditions 90 and 97. This separate document is not included in the 2024 Annual Report and no details are provided on where it can be found on the NIRB's Public Registry. This makes it difficult to track information and complete a review of Agnico Eagle's fulfillment of these Project Certificate Terms and Conditions.</p> <p>After further review, the Analysis of the Risk of Temporary Mine Closure (Feb 2019) document is filed under NIRB Application No. 124106 on the NIRB Public Registry and has been assigned Public Registry Identification No. 324985.</p>
<b>Recommendation:</b>	CIRNAC recommends that Agnico Eagle either include a copy of its current Analysis of the Risk of Temporary Mine Closure (Feb 2019) or the document's Public Registry Information Number in future annual report submissions when it is cited as an information source for Project Certificate Term and Condition compliance purposes.

Comment Number:	CIRNAC #8
<b>Subject:</b>	<b>Cultural Awareness Training</b>
<b>Reference:</b>	<ul style="list-style-type: none"> <li>• NIRB Project Certificate No. 006, Amendment 2, T&amp;C 110</li> <li>• 2024 Annual Report, Section 11.10.3.2.3</li> </ul>
<b>Issue/Rationale:</b>	<p>T&amp;C 110 of the amended NIRB Project Certificate states:</p> <p>"The Proponent shall provide the NIRB with a description of wellness and cultural diversity/acceptance programming made available to employees and family or community members and shall report the following information with respect to each program to the NIRB annually:</p> <ol style="list-style-type: none"> <li>a) Language of instruction;</li> <li>b) Uptake by employees and/or family members where relevant, noting Inuit and non-Inuit participation rates;</li> <li>c) Completion rates for enrolled participants, noting Inuit and non-Inuit rates; and</li> <li>d) Issues as may relate to program content which may have been noted or present either on site or in the community and which affect Project employment or employee wellness." <p>The NIRB Project Certificate tracking table included in Appendix 30 of Agnico Eagle's 2024 Annual Report submission makes reference to sections 12.1 and 12.4.2, as well as Appendix 39, the 2024 Socio-</p> </li></ol>



Comment Number:	CIRNAC #8
	<p>Economic Monitoring Program Report, for summaries of cross-cultural training initiatives provided as part of the Meliadine Gold Mine project.</p> <p>The 2024 Annual Report and its accompanying 2024 Socio-Economic Monitoring Report (section 10.2, pp. 120-121) provide an overview of the Cross Cultural Training Program that is provided to help employees and contractors appreciate cultural differences and improve communication in the workplace. Valuable information is provided, such as the number of Cultural Awareness courses delivered at the mine site and the number of employees and contractors who completed this training, including the total number of hours involved. However, responses to the actual reporting requirements included in T&amp;C 110 are not provided (i.e., items a. through d.). The provision of this information, in addition to the details Agnico Eagle is currently providing, would allow for a more comprehensive understanding of wellness and cultural diversity/acceptance programming made available to employees and family or community members.</p>
<b>Recommendation:</b>	<p>CIRNAC recommends that Agnico Eagle ensure future Annual Monitoring report submissions include details on how it is addressing the specific items identified in T&amp;C 110 of NIRB Project Certificate No. 006, Amendment 2, which concern cultural awareness training. These are:</p> <ul style="list-style-type: none"> <li>a) Language of instruction;</li> <li>b) Uptake by employees and/or family members where relevant, noting Inuit and non-Inuit participation rates;</li> <li>c) Completion rates for enrolled participants, noting Inuit and non-Inuit rates; and</li> <li>d) Issues as may relate to program content which may have been noted or present either on site or in the community and which affect Project employment or employee wellness.”</li> </ul>

## **2. Compliance Monitoring**

### ***a. Provide a summary of any compliance monitoring and/or site inspections undertaken in association with the project, including specifically:***

#### ***i. Identify the terms and conditions from the Project Certificate which have been incorporated into any permits, certificates, licences or other approvals issued for the Project, where applicable;***

CIRNAC has a broad mandate for the co-management of water resources and the management of Crown Land in Nunavut under the following applicable acts and regulations:

- The *Department of Crown-Indigenous Relations and Northern Affairs Act*;
- The *Nunavut Land Claims Agreement Act and the Nunavut Agreement*;
- The *Arctic Waters Pollution Prevention Act and Regulations*;
- The *Nunavut Waters and Nunavut Surface Rights Tribunal Act and Regulations*; and
- The *Territorial Lands Act and Regulations*.



In terms of water management in Nunavut, CIRNAC has a number of different responsibilities. The Minister of Northern Affairs has a decision-making role with regard to the Nunavut Water Board (NWB)'s issuance of Water Licences associated with a project. Furthermore, CIRNAC participates as an intervenor in the water licensing process, providing advice and expertise.

When a proposed project is approved to proceed, CIRNAC is responsible for inspecting and enforcing any terms and conditions (T&Cs) contained within any Water Licence associated with the project.

Although CIRNAC is not responsible for implementing water-related T&Cs, the Department has reviewed the Type 'A' Water Licence associated with the Meliadine Gold Mine Project with respect to the amended Project Certificate [No. 006] and has included a concordance table (Appendix A) that outlines how these T&Cs have been incorporated in the Water Licence by the NWB.

In 2024, AEM's Meliadine Gold Mine Project activities and monitoring were conducted under the following Water Licences:

- Type B Water Licence 2BB-MEL1424, and
- Type A Water Licence 2AM-MEL1631

Regarding land authorizations, CIRNAC issued the surface lease (#055K16042) for the marine discharge pipe for the Meliadine Gold Mine Project in 2019. The surface lease was amended (#55K/16-42-3) on January 23, 2023.

**ii. A summary of any inspections conducted during the 2024 reporting period and the results of these inspections; and,**

CIRNAC's Water Resource Officer (WRO) conducted four inspections during the 2024 reporting period. A summary of the inspection reports is presented below for NIRB's consideration.

Inspection 1	Water licence No. 2AM-MEL1631
<b>Area:</b>	Meliadine Camp
<b>Inspection Date:</b>	March 4, 2024
<b>Observations:</b>	<p>The primary focus of this inspection was to assess compliance with the Water Licence and the Nunavut Planning and Commission Act.</p> <p>The inspectors noted overall water usage (9,0196 m<sup>3</sup>) at the Water Intake MEL-11 and a new dust mitigation technique for the tailings storage facilities. Field trials of this technique are ongoing.</p> <p>The inspector confirmed that temporary signs noted in the April 2023 report have been replaced with permanent, clearly legible signage on both the shoreline and the lakeside, meeting Part B, Item 17 of the Licence.</p> <p>The inspector noted that the water withdrawal was within licensed limits.</p> <p>The inspector noted that the new dust control method shows innovation in tailings management, while the crusher was not available during inspection. Performance data from the ice cover/crusher trials will be reviewed at a future inspection.</p>



<b>Result:</b>	There were no items of non-compliance noted, and no immediate actions are required.
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Inspection 2	Project Certificate No.:006
<b>Area:</b>	Meliadine Camp
<b>Inspection Date:</b>	March 4, 2024
<b>Observations:</b>	<p>The primary focus of this inspection was to evaluate conditions of the Terrestrial Ecological Management and Monitoring Plan (TEMMP) and ensure compliance with Project Certificate No. 006.</p> <p>The inspector noted that food waste and other wildlife attractants were handled appropriately. One incinerator is housed within the building, and a shelter for the backup unit is under construction.</p> <p>The inspector noted that the loads delivered to the landfill were visually screened and contained no wildlife attractants.</p> <p>The inspector noted that approximately 10 sea-cans had doors left open; undisturbed snow indicated that the doors had been that way for some time.</p> <p>The inspector noted that all new personnel complete a mandatory e-learning program that covers waste segregation and wildlife-safety procedures. The final exam affirms the training requirement to satisfy PC condition 58.</p> <p>The inspector noted that the ambient air quality objectives were met (PC condition 1). Partisol high-volume air samplers operated throughout the 2024 winter campaign with only one missed run due to cold weather interfering with the sampler.</p>
<b>Result:</b>	There were no items of non-compliance noted. The Inspector required that the proponent increase efforts to ensure that sea can doors are closed when not in use.

Inspection 3	Water licence No. 2AM-MEL1631
<b>Area:</b>	Meliadine Camp
<b>Inspection Date:</b>	May 22, 2024
<b>Observations:</b>	<p>The inspection focused on freshet water management.</p> <p>The inspector noted that at the time of inspection, the site was 95% snow-free and the land was 40% snow-free. The site infrastructure was managing minimal water. The total water usage recorded was 194,150 m<sup>3</sup>. Snow had been cleared from bridges and culverts along the All-Weather Access Road (AWAR), with no damage evident.</p> <p>The inspector noted that the partially buried saline water pipeline alongside the road was progressing as engineered. The licensee was</p>



	<p>reminded to keep road elevations above the covered pipe to prevent runoff pooling (required under Part D Item 1 of the Water Licence).</p> <p>The inspector noted that the Tailings Storage Facility (TSF) showed a normal white/yellow surface precipitate, and no tailings were being deposited due to the level 3 Caribou Closure. The Inspector raised no concerns regarding the TSF's appearance or operation.</p> <p>The inspector noted that a spill on May 21, 2024, occurred when the Containment Pond 4 (CP4) Channel overflowed before reaching Containment Pond 4, revealing that the contact water was not fully contained (nearest natural receptor was Lake B7). Other ponds and channels (CP3 and CP5) were functioning as intended, and new signage was installed at CP5.</p> <p>The inspector noted pieces of plastic wrap from the pallets were in the burn pile, contravening Part F Item 16 of the Water Licence.</p> <p>The Inspector noted concern with the high number of sewage-related spills. In 2023, 33 spills were reported, of which 63% were sewage-related. In 2024, as of the date of inspection, 21 spills were reported and 66% of those were sewage spills.</p>
<b>Result:</b>	<p>Three items of non-compliance with the Licence were identified.</p> <ol style="list-style-type: none"> <li>1. Failure to direct sewage to the sewage treatment plant as required by Part F Item 1 of the Water Licence</li> <li>2. Failure to direct contact water to CP1 as required by Part F Item 2 of the Water Licence</li> <li>3. Burning of plastic waste at the open burn pad, contravening Part F Item 16 of the Water Licence.</li> </ol> <p>The licensee was required to cease burning plastic and other prohibited materials; repair or re-engineer the CP4 Channel so it cannot overflow and submit a follow-up report by 31 October 2024; and prepare, by the same date, a plan showing how sewage spills will be reduced and how all sewage/greywater will consistently enter the treatment plant. A follow-up inspection on September 05, 2024, noted compliance with the above-mentioned issues.</p>

Inspection 4	Water licence No. 2AM-MEL1631
<b>Area:</b>	Meliadine Camp
<b>Inspection Date:</b>	September 5, 2024
<b>Observations:</b>	<p>The primary focus of this inspection was spill closure, follow-up items from previous inspections dated May 22, 2025 (2024-KIV5-KA), and verification of construction and water management activities on site.</p> <p>The inspector noted that the Itivia bulk-fuel storage area was almost complete: two new tanks (one holding 9 million L and the other 4.5 million L) had been installed and their secondary containment berms</p>



	<p>raised with no requirement of hydrostatic testing. The newly commissioned West Vent Raise and all containment ponds were inspected with no concerns noted.</p> <p>The inspector noted that the directional drilling for the saline-water pipeline was in progress on Crown Land Lease between kilometres 11 and 14 of the AWAR.</p> <p>The inspector revisited CP4 channel where a contact water spill was reported on May 21, 2024. A downslope access road and a till-core ice berm had been constructed on the non-contact water side, and their effectiveness is expected to be assessed during the 2025 freshet.</p> <p>The inspector noted that water samples were taken at the time of the Inspection from MEL-14, and sample results demonstrate compliance with Part F Item 3 of the Water Licence.</p>
<b>Result:</b>	No items of non-compliance were noted, and no actions were required.

**iii. A summary of AEM's compliance status with regard to authorizations that have been issued for the Project.**

Three non-compliances related to Water Licence conditions and the *Nunavut Waters and Nunavut Surface Rights Tribunal Act S.C 2002, c. 10* were noted during 2024 inspections. The Water Licence reviews confirmed that daily withdrawals, freshet preparation work, contamination pond performance, and new infrastructure are being managed in accordance with the Licence's Part B, C, and E. Only the May inspection flagged breaches of Part F: sewage was not routed to the treatment plant, contact water bypassed CP1 via an overflow at the CP4 Channel, and plastic was found in the burn pile. The Licensee was informed to stop the open burning of plastics and repair the CP4 Channel by October 31, 2024. A follow-up inspection on September 05, 2024, noted compliance with the issues mentioned earlier. The Project-Certificate inspection focused on waste-stream controls, wildlife-attractant management, mandatory staff e-training, and ambient air quality monitoring required under Conditions 1, 58, and 3.1.6 of Certificate 006. All certificate conditions were met.

CIRNAC will continue to work with Agnico Eagle to ensure continued compliance with all water licence requirements associated with this project.





**Appendix A: Project Certificate Terms and Conditions (T&C) incorporated into any permits, certificates, licences or other approvals issued for the Project**

<b>NIRB Project Certificate No. 006 Term &amp; Condition</b>		<b>Implemented in NWB Water Licence NO: 2AM-MEL1631</b>
3	<p>Prior to commencing construction activities the Proponent shall update its dust management and monitoring plan to address and/or include the following additional items:</p> <ul style="list-style-type: none"> <li>a. Align plan requirements with commitments made in the FEIS and during the Final Hearing to monitor dust along the all-weather access road and associated roads and trails.</li> <li>b. Verify commitments to the utilization of dust suppressants along the all-weather access road including and associated roads and trails, including a description of the type of suppressant to be utilized, the frequency and timing of applications to be made throughout the various seasons of road use.</li> <li>c. Outline the specific adaptive management measures to be considered should monitoring indicate that dust deposition is higher than predicted, specifically where traffic along the all-weather access road is greater than initially predicted.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Part B: Item 12f</li> <li>▪ Part E: Item 17</li> <li>▪ Part I: Item 9c</li> <li>▪ Schedule B: Item 4</li> <li>▪ Schedule D: Item 1j</li> </ul>
4	The Proponent shall develop and implement an Incineration Management Plan that takes into consideration the recommendations provided in Environment Canada's Technical Document for Batch Waste Incineration (2010).	<ul style="list-style-type: none"> <li>▪ Part B: Item 12f</li> </ul>
6	The Proponent shall employ appropriate dust suppression measures when conducting activities in the landfill such as topping or capping.	<ul style="list-style-type: none"> <li>▪ Part B: Item 12o</li> </ul>
13	The Proponent shall undertake additional geotechnical investigations as required to identify sensitive landforms, modify engineering design for Project infrastructure (i.e., dikes, tailings storage facility, waste rock pile and landfill), and develop and implement preventative and/or mitigation and monitoring measures to minimize the impacts of the Project's activities and infrastructure on sensitive landforms. Plans for the investigations, mitigative and monitoring measures are to be included within an updated Environmental Protection Plan.	<ul style="list-style-type: none"> <li>▪ Part B: Item 12c</li> <li>▪ Part I: Item 14</li> <li>▪ Part I: Item 15</li> </ul>



<b>NIRB Project Certificate No. 006 Term &amp; Condition</b>		<b>Implemented in NWB Water Licence NO: 2AM-MEL1631</b>
14	The Proponent is encouraged to conduct more detailed thermal analysis to support detailed design of the dikes and the tailings storage facility, including seepage and stability analysis, and shall incorporate the results of the analysis into Project design. Details of the thermal analyses undertaken are to be provided to the NIRB.	<ul style="list-style-type: none"> <li>▪ Part D: Items 1b and 2</li> <li>▪ Part I: Item 13</li> </ul>
15	<p>The Proponent shall assess the potential environmental effects of a post-closure failure of the geomembrane of the Tailings Storage Facility while tailings are in a thawed state. This assessment shall include, at a minimum:</p> <ol style="list-style-type: none"> <li>a. A description of the potential environmental effects of such a failure;</li> <li>b. Identification of the monitoring measures employed to detect environmental changes that could result;</li> <li>c. Identification of proposed mitigation measures to address any changes identified during monitoring; and</li> <li>d. Updated Risk Management Plan and Closure and Reclamation Plan reflecting changes which result from the post-closure failure assessment.</li> </ol> <p>A summary of the results from this assessment and implications to project infrastructure and operational plans shall be provided to the NIRB.</p>	<ul style="list-style-type: none"> <li>▪ Part B: Item 12L</li> <li>▪ Part J: Item 5</li> </ul>
16	The Proponent shall finalize and implement a comprehensive erosion management plan to prevent or minimize the effects of destabilization and erosion resulting from Project activities.	<ul style="list-style-type: none"> <li>▪ Part B: Item 12o</li> <li>▪ Part D: Items 2e, 8 and 21</li> <li>▪ Part E: Item 9</li> </ul>
17	The Proponent shall monitor the effects of the Project on permafrost conditions relative to Project infrastructure, including along the all-weather access road and associated roads, waste rock stockpile, trails and quarries. Through its monitoring the Proponent must demonstrate that permafrost integrity is maintained with implementation of appropriate preventative measures should permafrost degradation be observed.	<ul style="list-style-type: none"> <li>▪ Part J: Item 5</li> </ul>



<b>NIRB Project Certificate No. 006 Term &amp; Condition</b>		<b>Implemented in NWB Water Licence NO: 2AM-MEL1631</b>
19	<p>The Proponent shall develop and implement a monitoring program for its Tailings Storage Facility and Waste Rock Storage Facility (including dikes). The monitoring program is to include, but shall not be limited to:</p> <ul style="list-style-type: none"> <li>a. Plans for monitoring the thermal condition and stability of storage facilities (including deformation of the cover) and dikes, including the use of thermistor cables, temperature loggers, and core sampling technology as required to monitor dike stability and tailings freezeback efficiency, including for example, factors such as ice content and stability; and,</li> <li>b. Measures proposed to ensure the safe containment and structural integrity of Project infrastructure, and to prevent contamination of waterbodies.</li> </ul> <p>Details of the monitoring program shall be provided to the NIRB.</p>	<ul style="list-style-type: none"> <li>▪ Part B: Item 12j</li> <li>▪ Part F: Item 20</li> </ul>
20	<p>The Proponent shall explore the feasibility and practicality of topsoil/organic matter salvage as part of phased approach to Project development, with updates to its Closure and Reclamation Plan to reflect any changes based on this investigation. The Closure and Reclamation Plan should be updated on an on-going basis as more information becomes available from similar reclamation projects, including experience with implementing closure and reclamation plans at the Meadowbank mine site, as applicable.</p>	<ul style="list-style-type: none"> <li>▪ Part B: Item 12l</li> </ul>
21	<p>The Proponent shall update its Waste Management Plan to include details which explain how the design employed for Project landfills is expected to protect the integrity of the local environment, including permafrost integrity, and water quality for adjacent waterbodies. The Proponent shall demonstrate its consideration for the use of liners at waste management facilities, where feasible.</p>	<ul style="list-style-type: none"> <li>▪ Part B: Item 12h</li> </ul>
22	<p>The Proponent shall report annually to the NIRB on the adaptations it has had made to the Mine Waste Management Plan and practices based on results obtained through monitoring.</p>	<ul style="list-style-type: none"> <li>▪ Part B: Item 12j</li> </ul>
23	<p>Prior to the commencement of excavation at the Discovery deposit, the Proponent, in consultation with Natural Resources Canada, shall update its Mine Waste Management Plan to assess the potential for acid rock drainage and to identify any monitoring and mitigation measures that may be required in this development area.</p>	<ul style="list-style-type: none"> <li>▪ Part B: Item 12j</li> </ul>



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24	The Proponent shall, reflecting any direction from the Nunavut Water Board during water licensing, collect new hydraulic data (e.g., from new monitoring wells) in key areas during the pre-development, construction and operation phases to better define vertical and horizontal ground flow in the project development area.	<ul style="list-style-type: none"> <li>▪ Part B: Item 12q</li> <li>▪ Part E: Item 14</li> </ul>
25	The Proponent shall provide to the NIRB, a saline water management plan which includes, but is not limited to, mitigation measures designed to address the potential for higher-than-predicted volumes of saline water inflows into the underground mine, treatment and disposal methods, and details of its plan to monitor saline water at site.	<ul style="list-style-type: none"> <li>▪ Part B: Item 12q</li> <li>▪ Part B: Item 13d</li> </ul>
26	The Proponent shall carry out continued analyses over time to confirm and update, accordingly, the approximate fill time for the mine pits as identified in the FEIS.	<ul style="list-style-type: none"> <li>▪ Part J: Item 1 and 5</li> </ul>
27	<p>The Proponent shall update its Aquatic Effects Monitoring Plan (AEMP) to include, at a minimum:</p> <ol style="list-style-type: none"> <li>a. Details regarding the monitoring of non-point sources of discharge, selection of appropriate reference sites, measures to ensure the collection of adequate baseline data at Meliadine Lake prior to and during construction activities, including information on chemical loading in the snowpack, and the mechanisms proposed to monitor for and treat runoff and sediment;</li> <li>b. A description of measures to be undertaken as relate to dustfall monitoring, designed in accordance with the following: <ol style="list-style-type: none"> <li>i. To establish Phase 1 all-weather access road baseline data and a description of plans for data collection during Project operations for comparison;</li> <li>ii. To facilitate comparison with existing guidelines;</li> <li>iii. To assess the seasonal deposition (rates, quantities) and chemical composition of dust entering aquatic systems along representative distance transects of the all-weather access road and Rankin Inlet by-pass road;</li> </ol> </li> <li>c. A description of water quality monitoring to be conducted at Little Meliadine Lake; and</li> <li>d. Details regarding comparisons of results to be run against predicted values and the analysis of data to be undertaken on an annual basis, or as may be required.</li> </ol>	<ul style="list-style-type: none"> <li>▪ Part B: Item 12a</li> <li>▪ Part B: Item 13</li> <li>▪ Part I: Item 3</li> </ul>



<b>NIRB Project Certificate No. 006 Term &amp; Condition</b>		<b>Implemented in NWB Water Licence NO: 2AM-MEL1631</b>
28	The Proponent shall develop and implement a sediment and erosion management plan to prevent or minimize the effects of destabilization and erosion that may occur due to Project activities. The plan should also detail sediment control plans to prevent and/or mitigate sediment loading into surface water within the Project area.	<ul style="list-style-type: none"> <li>▪ Part B: Item 12q</li> </ul>
29	The Proponent shall develop and implement adequate monitoring and maintenance procedures to ensure that the culverts and other conduits that may be prone to blockage do not significantly hinder or alter the natural flow of water from areas associated with the proposed mine. In addition, the Proponent shall monitor, document and report the withdrawal rates for water removed and utilized for all domestic and industrial purposes.	<ul style="list-style-type: none"> <li>▪ Part D: Item 1a and 24</li> <li>▪ Part E: Item 15</li> </ul>
30	<p>The Proponent shall update its Aquatic Effects Monitoring Plan (AEMP) to include, at a minimum:</p> <ol style="list-style-type: none"> <li>Provide details for additional reference lakes to be included within its sampling and monitoring programs;</li> <li>Updates to include sedimentation within relevant monitoring programs; and</li> <li>c. Results from additional testing for mercury in fish tissue, and include test results in updated baseline data.</li> </ol>	<ul style="list-style-type: none"> <li>▪ Part B: Item 12a</li> <li>▪ Part B: Item 13</li> <li>▪ Part I: Item 3</li> </ul>
31	The Proponent shall maintain an appropriate setback distance between project quarries and fish-bearing or permanent water bodies as required to prevent acid rock drainage or metal leaching into such water bodies.	<ul style="list-style-type: none"> <li>▪ Part B: Item 12q</li> </ul>
32	Prior to the commencement of construction, the Proponent shall submit to the NIRB, a Site Drainage and Silt Control Plan.	<ul style="list-style-type: none"> <li>▪ Part B: Item 12q</li> </ul>
33	The Proponent shall meet or exceed the guidelines set by Fisheries and Oceans Canada for blasting thresholds and implement practical and effective measures to ensure that residue and by-products of blasting do not negatively affect fish and fish habitat.	<ul style="list-style-type: none"> <li>▪ Part B: Item 12d and 12q</li> </ul>
34	Unless otherwise approved by regulatory authorities, the Proponent shall ensure that all Project infrastructure in watercourses is designed and constructed in such a manner that it does not obstruct unduly prevent or limit the natural movement of water in fish bearing streams and rivers.	<ul style="list-style-type: none"> <li>▪ Part B: Item 12q</li> </ul>



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41	Prior to the commencement of operations, the Proponent shall develop a progressive re-vegetation program for disturbed areas that are no longer required for operations, such program to incorporate measures for the use of test plots, reseeding and replanting of native plants as necessary. It is further recommended that this program be directly associated with the management plans for erosion control established for the Project and incorporate lessons learned at Meadowbank.	<ul style="list-style-type: none"> <li>▪ Part B: Item 12l</li> <li>▪ Part J: Item 8</li> </ul>
42	The Proponent shall include re-vegetation strategies in its Closure and Reclamation Plan that support progressive reclamation and that promote natural revegetation and recovery of disturbed areas compatible with the surrounding natural environment and incorporate lessons learned at Meadowbank.	<ul style="list-style-type: none"> <li>▪ Part B: Item 12l</li> <li>▪ Part J: Item 8</li> </ul>
67	The Proponent shall submit an updated Oil Pollution Prevention Plan including measures to avoid adverse effects to species at risk and migratory birds from spills, as well as details regarding monitoring of effects of a spill on species at risk and migratory birds.	<ul style="list-style-type: none"> <li>▪ Part B: Item 12p</li> </ul>
77	The Proponent shall ensure that it maintains the necessary equipment and trained personnel to respond to all sizes of potential spills associated with the Project in a self-sufficient manner.	<ul style="list-style-type: none"> <li>▪ Part B: Item 12p</li> </ul>
78	<p>Prior to the shipping of Project supplies, the Proponent shall conduct fuel spill dispersion modeling that will, at a minimum, consider:</p> <ul style="list-style-type: none"> <li>a. Modeling of oil spills in the following areas: <ul style="list-style-type: none"> <li>i. Pinch points, including: Hudson Strait, Melvin Bay area including Itivia Harbour and Panorama Island;</li> <li>ii. Shallow water and shorelines; and,</li> <li>iii. Areas that have been identified as having high flows and/or high concentrations of marine mammals, marine fish or seabirds;</li> </ul> </li> <li>b. Open water and ice-covered conditions;</li> <li>c. Spill volumes up to and including loss of a full tanker cargo; and,</li> <li>d. Differences in the quantity and properties of each type of bulk fuel transported by vessels when they are at, or in transit to, the port of Rankin Inlet.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Part B: Item 12p</li> </ul>





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117	Prior to construction Phase 2 of the all-weather access road and the Rankin Inlet bypass road, the Proponent shall consult applicable laws in Canada and Nunavut as well as meet with all regulatory agencies and the public as it finalizes its road operations plans.	▪ Part B: Item 12o
120	The Proponent shall contract only Transport Canada certified shippers to carry cargo for the Project, and will ensure shippers are aware of the requirements of the Shipping Management Plan, the Risk Management and Emergency Response Plan and the Oil Pollution Emergency Plan (OPEP).	▪ Part B: Item 12n
121	The Proponent shall monitor the ingress/egress of Project related ships at Rankin Inlet and report any accidents or spills immediately to the regulatory agencies as required by law and to NIRB's Monitoring Officer.	▪ Part B: Item 12n
122	The Proponent shall ensure that best practices are used at all times during ship to shore and other marine-based fuel transfer events, including implementing measures specifically designed to prevent leaks and spills resulting from ice forming on the hoses during fuel transfers.	▪ Part B: Item 12n
124	Prior to construction, the Proponent shall update its Spill Contingency Plan specific to a major spill event occurring on the bypass road and within proximity to (and including potential spills into) Nipissar Lake.	▪ Part B: Item 12n

