



Water Resources Division
Resource Management Directorate
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Your file - Votre référence
2AM-MEL1631
Our file - Notre référence
GCDocs#139197132

July 18, 2025

Richard Dwyer
Manager of Licensing
Nunavut Water Board
P.O. Box 119
Gjoa Haven, NU, X0B 1J0
E-mail: licensing@nwb-oen.ca

Re: Crown-Indigenous Relations and Northern Affairs Canada's (CIRNAC's) Review of the 2024 Annual Report for Meliadine Gold Mine Project, Type A Water Licence No. 2AM-MEL1631.

Dear Richard,

Thank you for your April 02, 2025, invitation to review the 2024 Annual Report for the Meliadine Gold Mine Project, submitted by Agnico Eagle Mines Limited, for Type A Water Licence No. 2AM-MEL1631.

Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC) examined the Report and its attachments pursuant to its mandated responsibilities under the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* and the *Department of Crown-Indigenous Relations and Northern Affairs Act*. Please find CIRNAC comments and recommendations in the attached Technical Memorandum for the Nunavut Water Board's consideration.

If there are any questions or concerns, please contact me at Aminul.Haque@rcaanc-cirnac.gc.ca or (867) 975-4282 or Andrew Keim at (867) 975-4550 or Andrew.Keim@rcaanc-cirnac.gc.ca.

Sincerely,

Aminul Haque
Senior Environmental Assessment Specialist



Technical Review Memorandum

Date: July 18, 2025

To: Richard Dwyer, Manager of Licensing, Nunavut Water Board

From: Aminul Haque, Senior Environmental Assessment Specialist, CIRNAC

Subject: Crown-Indigenous Relations and Northern Affairs Canada's (CIRNAC's)
Review of the 2024 Annual Report for Meliadine Gold Mine Project, Type
A Water Licence No. 2AM-MEL1631.

Region: ☐ Kitikmeot ☒ Kivalliq ☐ Qikiqtani

A. BACKGROUND

Agnico Eagle Mines' (Agnico Eagle) Meliadine Gold Mine Project is located near the western shore of Hudson Bay in the Kivalliq Region of Nunavut, approximately 25 km north of Rankin Inlet, 80 km southwest of Chesterfield Inlet, and 290 km southeast of the Meadowbank mine. The Project site is situated on a peninsula amongst the east, south, and west basins of Meliadine Lake (63°1'23.8"N, 92°13'6.42"W), on Inuit-owned land. The 111,358-hectare property covers an 80-km-long greenstone belt. A 24-km all-weather gravel access road (built in October 2013) links the Meliadine project site with Rankin Inlet. The NIRB Project Certificate (PC No. 006) was issued to Agnico Eagle on February 26, 2015. Agnico Eagle was issued a water licence for this project by the Nunavut Water Board (NWB) on April 15, 2016. The mine commenced its commercial production on May 14, 2019.

Meliadine includes seven gold deposits: Tiriganiaq, Normeg, Wesmeg, Pump, F-Zone, Wolf and Discovery. The approved Project consists of mining at five deposits (Tiriganiaq, Wesmeg, Pump, F Zone, and Discovery) through a phased approach and processing of the ore at an on-site milling operation at a rate of 8,500 tonnes per day, as well as transportation of the gold bullion south for final refinement and sale. The deposits are all within five (5) km of Tiriganiaq except for Discovery, which is 17 km southeast of Tiriganiaq. Each of these deposits has mineralization within 120 meters of the surface, making them potentially mineable by open-pit methods. Additionally, due to their deeper mineralization, they can be mined using underground methods. The current mineral reserves are primarily located in the Tiriganiaq deposits, both underground and at open-pit depths. In Phase 1 of the mine, the ore is sourced underground through access declines, utilizing long-hole mining methods. In Phase 2, the ore will be sourced from both underground and open-pit mines. A conventional truck/shovel operation is anticipated for the open pits. The Project includes the extended exploration, construction, operation, closure, and reclamation of underground and open-pit mines, as well as associated infrastructure, for extracting, processing, and transporting gold. Tiriganiaq mining will occur using above-ground and underground methods, with the other four (4) deposits mined using open pit methods. There are three (3)



main Project areas: the Tiriganiaq mine site (Underground Mine, Open Pits 1 & 2), the Discovery deposit, and the Itivia Harbour.

The Tiriganiaq mine site comprises of a camp, land farm, landfill, incinerator, and fuel tank farms, all of which were completed in late 2017. Additionally, the underground portal has been operational since 2007/2008, when it was constructed for bulk sampling. The mine site also includes three (3) waste rock piles, three (3) ore stockpiles, and a tailings storage facility. Transportation of personnel and supplies occurs via the All-Weather Access Road (AWAR) between Rankin Inlet and the Meliadine site; Phase 1 of the AWAR was approved by the NIRB in 2012 as an exception to the review of the Meliadine Gold Mine project and was completed in 2013.

Supplies and equipment for the Project are barged into Itivia Harbour, Melvin Bay, in Rankin Inlet, during the open-water season. The Itivia project area encompasses quarry operations that commenced in 2017, as well as a laydown area and fuel tank farm, which were completed in the summer of 2018. Construction of the bypass road from Itivia to the start of the AWAR was completed in the fall of 2018. The bypass road enables mine traffic to avoid the community of Rankin Inlet while transporting fuel and equipment to the Project mine site.

During 2023, the NWB considered another Type A Water Licence amendment application triggered by the Meliadine Extension Proposal. The application was withdrawn by Agnico Eagle on December 19, 2023, following NIRB's recommendation that the Extension Proposal should not be allowed at this time based on the potential for significant adverse ecosystemic and socio-economic effects.

With the withdrawal of the Meliadine Extension Application to support the completion of mining of all deposits permitted at the Meliadine Mine, Agnico Eagle has identified components included in the 2014 FEIS and already approved under the Nunavut Impact Review Board's (NIRB) Project Certificate No. 006. These specified project components require amendment to the Type A Water Licence (collectively referred to as the Meliadine Mine Water Licence Amendment). On January 29, 2024, the NWB distributed an amendment application for Agnico Eagle Mines Limited, Meliadine Mine water licence 2AM-MEL1631 to regulators and interested parties. The Minister of Northern Affairs approved the amended 2AM-MEL1631 Water Licence on November 22, 2024.

CIRNAC provides the following comments and recommendations pertaining to the 2024 Meliadine Gold Mine Annual Report. A summary of the subjects of recommendations can be found in Table 1. Documents reviewed as part of this submission can be found in Table 2 of Section B. Detailed technical review comments can be found in Section C.



Table 1: Summary of Recommendations

Recommendation Number	Subject
R-01	Water Line Construction, Commissioning, Discharge Clarifications
R-02	Clarification of Ore Storage Quantities
R-03	Saline Water Management and Reclaim Water for Mill Use
R-04	Lake B7 Arsenic Impacted Water Quality
R-05	Discrepancies between Predicted and Actual Tailings Neutralization Potential Ratio (NPR)
R-06	Tiriganiaq Open Pit #2 (TIRI02) Water Quality Predictions
R-07	Sludge Disposal Studies
R-08	Management of OP2 Salinity and TDS Loading to CP1
R-09	Tailings Placement
R-10	Improvements to Annual Report

B. DOCUMENTS REVIEWED AND REFERENCED

The following table (Table 2) lists the documents reviewed under the submission and references during the review.

Table 2: Documents Reviewed and Referenced

Document Title	Author/Date
2AM-MEL1631 2024 Annual Report & Appendices	
Meliadine Gold Mine – 2024 Annual Report, Main Document, V1	Agnico Eagle, March 2025
Appendix Documents	
Appendix 01 - 2024 Meliadine Gold Mine Annual Report Appendix Summary Table	Agnico Eagle, March 2025
Appendix 02 - 2024 Drill Sites and Cuttings Locations	Agnico Eagle, March 2025
Appendix 03 - 2025-2026 Mine Plan	Agnico Eagle, March 2025
Appendix 04 - General Site Layout	Agnico Eagle, March 2025
Appendix 05 - Water Balance and Water Quality Modeling Tabular Data and Figures	Agnico Eagle, March 2025
Appendix 06 - 2024 Annual Geotechnical Inspection	Tetra Tech, 11 March 2025
Appendix 07 - 2023 Annual Geotechnical Report Agnico Eagle Responses and Action Table	Agnico Eagle, March 2025
Appendix 08 - 2024 Annual Geotechnical Report Agnico Eagle Responses and Action Table	Agnico Eagle, March 2025
Appendix 09 - 2024 Metal Leaching and Acid Rock Drainage Monitoring Report	Agnico Eagle, March 2025



Document Title	Author/Date
Appendix 10 - 2024 Results of the Tailings Supernatant Sampling	Agnico Eagle, March 2025
Appendix 11 - WRSF1 and WRSF3 Plans and Sections at the End of 2024	Agnico Eagle, March 2025
Appendix 12 - TSF Plans and Sections at the End of 2024	Agnico Eagle, March 2025
Appendix 13 - Shipping Documentation	Consulair, March 2025
Appendix 14 - 2024 Stack Testing Report	Agnico Eagle, March 2025
Appendix 15 - 2024 Reportable Spills	Agnico Eagle, March 2025
Appendix 16 - 2024 Non-Reportable Spills	Agnico Eagle, March 2025
Appendix 17 - 2024 Mock Spill Scenario Report	Agnico Eagle, March 2025
Appendix 18 - 2024 Aquatic Effects Monitoring Program (Agnico Eagle) Report	Azimuth, 27 March 2025
Appendix 19 - 2024 Water Monitoring Stations Results	Agnico Eagle, March 2025
Appendix 20 - 2024 DDH Water Samples Results	Agnico Eagle, March 2025
Appendix 21 - 2024 Calibration Data	Agnico Eagle, March 2025
Appendix 22 - 2024 Blast Monitoring Report	Agnico Eagle, March 2025
Appendix 23 - 2024 Noise Monitoring Report	Agnico Eagle, March 2025
Appendix 24 - 2024 Air Quality Monitoring Report	Agnico Eagle, March 2025
Appendix 25 - 2024 Toolbox Presentations	Agnico Eagle, March 2025
Appendix 26 - 2024 Terrestrial Environment Management and Monitoring Plan Report	WSP, 27 March 2025
Appendix 27 - 2024 Wildlife Observations	Agnico Eagle, March 2025
Appendix 28 - 2024 Marine Mammal and Seabird Observation Report	ERM, March 2025
<i>Appendix 29 Management Plans (Note: Appendix 29-01 to 29-19 Revised and Submitted with 2024 Annual Report)</i>	
Appendix 29-01 Air Quality Monitoring Plan, V4	Agnico Eagle, March 2025
Appendix 29-02 Blasting Monitoring Program, V7	Agnico Eagle, January 2025
Appendix 29-03 Borrow Pits and Quarries Management Plan, V8	Agnico Eagle, March 2025
Appendix 29-04 Dust Management Plan, V8	Agnico Eagle, March 2025



Document Title	Author/Date
Appendix 29-05 Explosives Management Plan, V11	Agnico Eagle, March 2025
Appendix 29-06 Groundwater Management Plan, V12	Agnico Eagle, March 2025
Appendix 29-07 Incineration Management Plan, V9	Agnico Eagle, March 2025
Appendix 29-08 Interim Closure and Reclamation Plan, V2.2	Agnico Eagle, March 2025
Appendix 29-09 Mine Waste Management Plan, V12	Agnico Eagle, March 2025
Appendix 29-10 Noise Abatement and Monitoring Plan, V4	Agnico Eagle, March 2025
Appendix 29-11 Oil Pollution Emergency Plan and Oil Pollution Prevention Plan, V11	Agnico Eagle, March 2025
Appendix 29-12 Ore Storage Management Plan, V7	Agnico Eagle, March 2025
Appendix 29-13 Roads Management Plan, V11	Agnico Eagle, March 2025
Appendix 29-14 Sediment and Erosion Management Plan, V5	Agnico Eagle, March 2025
Appendix 29-15 Shipping Management Plan, V10	Agnico Eagle, March 2025
Appendix 29-16 Spill Contingency Plan	Agnico Eagle, March 2025
Appendix 29-17 Terrestrial Environment Management and Monitoring Plan (TEMMP), V5	Agnico Eagle, March 2025
Appendix 29-18 Water Management Plan, V15B	Agnico Eagle, March 2025
Appendix 29-19 Water Quality and Flow Monitoring Plan, V5	Agnico Eagle, March 2025
<i>(Note: Appendix 29-20 to -26 Revised & Submitted to NWB during 2024 Water Licence Amendment Application)</i>	
Appendix 29-20 Adaptive Management Plan for Water Management, V2B	Agnico Eagle, June, July, Aug., 2024
Appendix 29-21 Aquatic Effects Monitoring Program (Agnico EagleP) Design Plan, V3	Azimuth, February 2025
Appendix 29-22 ARD-ML Sampling and Testing Plan, V1	Agnico Eagle, January 2024
Appendix 29-23 Environmental Management and Protection Plan, V10	Agnico Eagle, January 2024
Appendix 29-24 Freshet Management Plan, V10	Agnico Eagle, February 2025
Appendix 29-25 Landfill and Waste Management Plan, V9	Agnico Eagle, January 2024



Document Title	Author/Date
Appendix 29-26 Risk Management and Emergency Response Plan, V5	Agnico Eagle, January 2024
Appendix 30 - NIRB Project Certificate Tracking Table	
Appendix 31 - NWB Water Licences Tracking Table	Agnico Eagle, March 2025
Appendix 32 - 2023 Annual Report Comments Tracking Table	Agnico Eagle, March 2025
Appendix 33 - DFO Reporting Tracking Table	Agnico Eagle, March 2025
Appendix 34 - 2024 2AM-MEL1631 WLA Commitments Tracking Table	Agnico Eagle, March 2025
Appendix 35 - 2024 Community Engagement Table	Agnico Eagle, March 2025
Appendix 36 - 2024 Kivalliq Community Newsletter	Agnico Eagle, March 2025
Appendix 37 - 2024 Kivalliq Elders Advisory Committee Summary Report and Caribou Workshop Poster	Agnico Eagle, March 2025
Appendix 38 - 2024 TAG Annual Report	Agnico Eagle, March 2025
Appendix 39 - 2024 Socio-Economic Monitoring Report	Aglu Consulting and Training Inc., with ERM, March 2025
Appendix 40 - 2024 Training.pdf	Agnico Eagle, March 2025
Appendix 41 - 2024 Kivalliq Labour Market Analysis Executive Summary.pdf	Aglu Consulting and Training Inc., with ERM, March 2025
Appendix 42 - Inuktitut Summaries of Monitoring Results	Agnico Eagle, March 2025
Other Reports/Information	
Nunavut Water Board Amended Water Licence No: 2AM-MEL1631	Issued 25 October 2024
CIRNAC's Review of the 2023 Annual Report for Meliadine Gold Mine Project, Type A Water Licence No. 2AM-MEL 1631	CIRNAC, 15 May 2024
CIRNAC's Reply to Agnico Eagle Responses on the 2023 Annual Report Review Comments for the Meliadine Gold Mine Project, Type A Water Licence No. 2AM-MEL1631	CIRNAC, 30 July 2024



C. RESULTS OF REVIEW

1. Water Line Construction, Commissioning, Discharge Clarifications

Comment:

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: “Piping, optic fiber, and earthworks from KM15 to Itivia; Remaining mechanical installation; Directional drilling at Itivia and diffuser installation; and Commissioning.” It is unclear what commissioning specifically refers to or when the operation will begin. 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, including the fact that commissioning and operation of the Waterline will not occur in 2025.

Appendix 29-18, Section 4.1 Key Water Management Activities, Table 12, states that the Planned 2025 Schedule includes: “continued waterline construction and anticipated commissioning of the SETP-WTC”. The 2026 Planned Schedule includes: “anticipated waterline commissioning and SETP-WTC discharge through the waterline”. Appendix 29-18, Section 4 Water Management Strategy, states that “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”.

The above sources provide inconsistent information on the timing of waterline commissioning and discharge, with no details on the reasons for changes to the construction and discharge schedules.

Recommendation:

(R-01) CIRNAC recommends that Agnico Eagle clarify the status of the waterline and provide additional details on:

- a) The physical status of the waterline at the 2024 year-end,
- b) Planned 2025 and 2026 activities,
- c) Schedules for completion of waterline construction, commissioning, and start of discharge, and
- d) Expected operational practices (daily, monthly, annual discharge) upon start of discharge at Itivia.



2. Clarification of Ore Storage Quantities

Comment:

Section 2.1.3 of the Annual Report states that 561,000 tonnes and 1,436,000 tonnes of ore were mined respectively from the Open Pit and Underground for a total of 1,997,000 tonnes in 2024.

Section 4.4.1 states that 1,543,000 tonnes of tailings were deposited into the tailings storage facility (TSF) in 2024. Subtracting the tailings (i.e., ore milled & placed in the TSF) from the tonnes of ore mined leaves 454,000 tonnes of ore. Appendix 29-09 states that 423,000 tonnes of tailings were placed underground in 2024,

Based on the numbers above, it appears that 31,000 tonnes of ore mined in 2024 were not processed in 2024. As a result, it is expected that this amount of ore would be added to the ore stored on site by the end of 2024 (as noted below).

In Section 4 of Appendix 29-12, Agnico Eagle notes that ore will either be transported directly to the mill and crusher for processing or will be temporarily stockpiled at one of the designated ore stockpiles on OP2 (Stage 1 / Stage 2) for subsequent processing. Table 4.4 shows that 216,000 tonnes and 323,000 tonnes of ore were stockpiled at year end in 2023 and 2024, respectively.

If the difference in ore mined vs. milled and deposited as tailings in 2024 was 31,000 tonnes, CIRNAC would expect that the ore stored at year end 2024 would be less than the 323,000 tonnes reported (i.e., 216,000 tonnes at year end 2023 plus 31,000 tonnes of ore not milled in 2024 = 247,000 tonnes).

Recommendation:

(R-02) CIRNAC recommends that Agnico Eagle clarify the difference in the quantity of ore stored as listed for 2024 in Table 4.4 of Appendix 29-12 compared to what is calculated from the difference in ore mined and milled in 2024 and added to the 2023 year-end ore storage.

3. Saline Water Management and Reclaimed Water for Mill Use

Comment:

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 treat higher salinity sources of water on site (described in Section 3.9.6 of the Water Management Plan) and thus the permeate water salinity is not low enough for direct mill water feed, and that previous use of contact water for milling significantly increased tailings salinity.

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 “a reverse osmosis (RO) treatment plant is used to treat marginally saline runoff water 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 reduce storage requirements of saline water on site until the Waterline is operational.”

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). 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.

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.

Recommendation:

(R-03) CIRNAC recommends that Agnico Eagle:

- a) Clarify if, and when, CP1 water has been tested for use as mill makeup.
- b) Clarify whether the RO plant is treating higher salinity or marginally saline sources.
- c) Provide details on the saline water sources being treated.
- d) Confirm whether saline groundwater treated by the RO plant is discharged to CP1 and thereafter discharged to Meliadine Lake.

4. Lake B7 Arsenic Impacted Water Quality

Comment:

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 (Agnico EagleP). Monitoring results indicate that water quality changes are occurring, with major ions (calcium, sodium, chloride, and sulphate), arsenic, and barium being the most significantly affected parameters. During the August 2024 sampling, all three arsenic concentrations in Lake B7 exceeded the Agnico EagleP Action Level of 18.8 µg/L, and two also exceeded the Site-Specific Water Quality Objective (SSWQO).

In the Agnico EagleP, Agnico Eagle states that seasonal trends of arsenic concentrations in Lake B7 suggest that increased concentrations may be the result of arsenic release from the sediment. Agnico Eagle 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. Moreover, the CIRNAC Water Licence Inspection Report dated May 22, 2024, noted that a spill occurred on May 21, 2024, when the Containment Pond 4 (CP4) Channel overflowed before reaching Containment Pond 4, revealing that the contact water was not fully contained (the nearest natural receptor was Lake B7).

Therefore, CIRNAC notes that the observed arsenic concentrations in the sediment may suggest another source from the mine other than dust.

Recommendation:

(R-04) CIRNAC recommends that Agnico Eagle:

- a) Carry out a comprehensive investigation into the potential source of arsenic in Lake B7 and develop mitigation plans.
- b) Indicate why the 2024 exceedances of the arsenic SSWQO in Lake B7 are not classified as a non-compliance event.
- c) 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 a saline pond (SP6) during operations.

5. Discrepancies between Predicted and Actual Tailings Neutralization Potential Ratio (NPR)

Comment:

Section 4.2.4 of the Annual Report discusses the acid rock drainage (ARD) potential of the filtered tailings. The monitoring results indicate 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).

Despite the presence of samples classified as potentially acid generating (PAG) and Uncertain from 2019 to 2024 sampling, Agnico Eagle believes that the tailings do not pose an ARD risk for the site because generation of acidic water requires tailings exposure to air and water and sufficient timescales for neutralization potential to be consumed, and sufficiently warm temperatures to facilitate sulfide oxidation at meaningful rates.

While CIRNAC appreciates Agnico Eagle'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.



Recommendation:

(R-05) CIRNAC recommends that Agnico Eagle 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 the result of 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.

6. Tiriganiaq Open Pit #2 (TIRI02) Water Quality Predictions

Comment:

Section 3.2 of the 2022 and 2023 Annual Reports, along with their respective appendices, summarizes the water balance and water quality modelling tabular data, including figures with water quality measurements and forecasted concentrations of total dissolved solids (TDS), ammonia, and radium-226 in Tiriganiaq Open Pit #2 (TIRI02).

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.

Recommendation:

(R-06) CIRNAC recommends that Agnico Eagle reinstate the inclusion of water quality figures with observed and predicted parameter concentrations for TIRI02 in the Annual Report.

7. Sludge Disposal Studies

Comment:

The issue of sludge management was raised during the review of the 2023 Annual Report. In CIRNAC's reply to Agnico Eagle's response on the 2023 Annual Report review comments, CIRNAC noted the following:

- a) R-06(a), in the 2023 Annual report, TIRI02 water quality data were only provided for total dissolved solids (TDS), total ammonia and radium-226 in Figures 15, 16 and 17 of the main report and Appendix 4. However, Agnico Eagle indicated that the sludge is unlikely to negatively impact the pH, conductivity, total ammonia, copper, lead, nickel and zinc in saline contact water based on existing water quality data collected in TIRI02, but Agnico Eagle did not provide the requested additional water quality data for TIRI02 in their response. Therefore, CIRNAC could not confirm Agnico Eagle's conclusions that sludge placed in the pit is unlikely to negatively impact the water quality in TIRI02.



- b) R-06(b), CIRNAC was looking forward to reviewing the Scenario Analysis report on alternative sludge management studies in the 2024 Annual Report.

CIRNAC's review of the 2024 Annual Report noted that Section 7.3.3 states that a scenario analysis was conducted in Q2 2024, concluding that both Geobags and centrifuges are technically viable but face practical challenges and safety concerns. However, the Scenario Analysis report was not provided for review, and the Annual Report did not include further details.

Recommendation:

(R-07) CIRNAC recommends that Agnico Eagle provide:

- a) the additional data requested by CIRNAC during the 2023 review as noted above (pH, conductivity, total ammonia, copper, lead, nickel and zinc in saline contact water based on existing water quality data collected in TIRI02),
- b) the Scenario Analysis report on alternative sludge management studies referred to in the 2024 Annual Report, and
- c) confirm their intentions with respect to ongoing studies and sludge management going forward.

8. Management of OP2 Salinity and TDS Loading to CP1

Comment:

Section 3.1.9, Use of Reclaimed Water from Contact Water Management Facilities, of the 2024 Annual Report states that previous use of contact water for milling significantly increased tailings salinity, and that "saline moisture from the underground ore elevates filtered tailings pore water salinity". Agnico Eagle also notes that pore water salinity of the filtered tailings can negatively impact the tailings storage facility's (TSF's) thermal performance. As such, monitoring will continue throughout 2025 to confirm the downward trend in salinity of tailings and protect the TSF's thermal stability.

As shown in Appendix 29-18, Figure 6 Conceptual Site Water Management Flow Diagram for the Site, runoff from ore stored in Ore Storage Pad 2 (OP2) presently discharges to Containment Pond 1 (CP1) directly and via Channel 1 and will continue to do so to end of mine life as illustrated in Figure 7 of Appendix 29-18.

As shown in Appendix 29-12 Table 4.4, annual year-end stockpiled ore quantities range from a 323,000 t at end of 2024, to 460,000 t and 424,000 t in 2025 and 2026, respectively, and then increase dramatically to 2,607,000 t in 2027, 4,126,000 t in 2028, 5,466,000 t in 2029, 5,938,000 t in 2030, and 7,661,000 t in 2031.

It is noted that results from Agnico Eagle's 2023 assessment of OP2's potential contribution to CP1 total dissolved solids (TDS) loading ranged from 3% to 7%, which Agnico Eagle



believes is not a material concern, and as such Agnico Eagle indicates they will not pursue further mitigations to control TDS seepage from the ore stockpile.

However, in light of the statements made above with respect to salinity impact of ore on tailings, and the significant planned increase of ore storage over the next seven years, CIRNAC suggests that management of ore storage runoff be revised to divert ore storage runoff to the saline water collection system to mitigate potential salinity TDS issues at CP1.

Recommendation:

(R-08) CIRNAC recommends that Agnico Eagle review its approach in managing OP2 runoff and consider diverting it to the saline water system for discharge into the marine environment.

9. Tailings Placement

Comment:

Section 4.4.1 of the 2024 Annual Report states that active tailings placement to the tailings storage facility (TSF) occurred throughout the year resulting in a total of 935,000 m³ (1,543,000 t) of tailings placed in the facility in 2024 for a remaining design capacity of 1,960,000 m³ (3,240,000 t) as shown in Table 11. It is unclear what is meant by “remaining design capacity”. As shown in Table 4.1 of Appendix 29-09, seven additional years of tailings deposition are planned for the TSF, requiring storage of approximately 19 million tonnes. In that regard it is also noted that the last sentence in Section 4.3 of Appendix 29-09 states: “Based on the above design criteria, the TSF has a capacity for 12.5 Mm³ (20.6 Mt) of filtered tailings. Detailed design of an expanded TSF is expected to be completed in 2025.”

In addition to a lack of clarity regarding the remaining capacity of the TSF, the body of the 2024 Annual Report is silent on the fact that tailings are deposited underground and provides no quantities of tailings placed underground. This information is only provided in Appendix 29-09 Table 4.1, which states that 423,000 tonnes of tailings were placed underground in 2024.

Recommendation:

(R-09) CIRNAC recommends that Agnico Eagle:

- a) includes a statement in the body of the Annual Report on tailings deposition underground and a reference to the Mine Waste Management Plan, and
- b) clarify what is meant by “remaining design capacity” as stated in Section 4.4.1 of the 2024 Annual Report, and
- c) provide updates on the status of detailed designs for an expanded TSF and clarify the timing for expanding the TSF capacity and what regulatory authorizations are necessary.



10. Improvements to Annual Report

Comment:

From review of the 2024 Annual Report, it was noted that limited or no information was provided in the main body of text with respect to:

- Details on planned 2025 mining activities:

The information provided in Section 2.2 states that the 2025-2026 Mine Plan prepared for KivIA is included in Appendix 3. The 2025 mining plan is to continue operating the Tiriganiaq Underground Mine and Open Pit 1 (TIRI01), and mining at the Pump deposit area will commence, utilizing open pits Pump01 and Pump02. Appendix 3 provides general comments on surface construction as well as details of new equipment. No information is provided on planned open pit or underground mining activities in the body of the Annual Report.

- Discussion of total tailings generated during the year:

The text in the body of the 2024 Annual Report only discusses tailings sent to the tailings storage facility. Information on tailings placed underground is provided in Appendix 29-09.

- Discussion of non-reportable spills:

There is no discussion of non-reportable spills in the body of the 2024 Annual Report; it only references Appendix 16. Appendix 16 provides a comprehensive list (presumed to be 118, as shown in Figure 13 of the Annual Report) that includes dates/times, contaminant, estimated quantity, Exact location of the incident, Description of the incident, and description of the immediate corrective action.

Recommendation:

(R-10) CIRNAC recommends that Agnico Eagle consider potential additions to the body of the Annual Report, including:

- a) additional details of actual and planned mining for the next two years such as location and quantity of ore and waste expected to be mined, additional summary information on mine performance (actual/planned ounces produced, production cost, etc., as per information provided in Meadowbank Complex 2024 Annual Report Section 2.1 that would also enhance understanding of site performance and challenges),
- b) a statement on total tailings generated by the mill during the reporting period, and
- c) a high-level summary on the nature and location of non-reportable spills (as provided in the Meadowbank Complex 2024 Annual Report).