August 15, 2024 NWB File No.: 2AM-MEL1631

Richard Dwyer
Nunavut Water Board
PO Box 119
Gjoa Haven, NU
X0B 1J0

Re: Agnico Eagle's Response to Final Written Submissions on the Meliadine Water Licence Amendment Application 2AM-MEL1631

Dear Mr. Dwyer

Agnico Eagle thanks the Kivalliq Inuit Association, Crown-Indigenous Relations and Northern Affairs Canada, Environment and Climate Change Canada, and Fisheries and Oceans Canada for their Final Written Submissions on the Meliadine Mine Water Licence Amendment Application. Our comments are provided in the enclosed.

Should you have any questions or require further information, please contact the undersigned at your convenience.

Regards,

Jamie Quesnel
jamie.quesnel@agnicoeagle.com
Director, Permitting & Regulatory Affairs

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KIVALLIQ INUIT ASSOCIATION (KivIA)

Interested Party:	**KivIA**	**Rec No.:**	**KivIA-FWS-1**
Re:	**Water Compensation Agreement**		

Request Made by Interested Party:

Article 20 of the Nunavut Agreement requires a compensation agreement to be in place prior to the NWB approving a licence. It is the position of KivIA that the Amendment Application will substantially affect the quality, quantity, and flow of water flowing through IOL and that a compensation agreement must be in place to compensate KivIA for any loss or damage which may have been caused by the change in quality, quantity or flow of the water.

The KivIA wishes to inform the NWB that they are working with the Proponent on amendments to the Water Compensation Agreement and expects to provide an update to the board prior to the final hearing.

Agnico Eagle's Response to Request:

Agnico Eagle and the KivIA continue to advance discussions and work collaboratively to reach agreement on the Water Compensation Agreement. This agreement will be finalized prior to the Final Hearing in September.

Interested Party:	**KivIA**	**Rec No.:**	**KivIA-FWS-2**
Re:	**Security Management Agreement**		

Request Made by Interested Party:
Ensuring that there is adequate security posted to address any issues that arise relating to the Meliadine operations is necessary and required.

The KivIA wishes to inform the NWB that they are working with the Proponent and CIRNAC to resolve outstanding issues relating to amendments to the Security Management Agreement and that they expect to provide an update to the board prior to the final hearing.

Agnico Eagle's Response to Request:
On August 15, 2024 Agnico Eagle, the KivIA, and CIRNAC agreed to security. The Security Management Agreement is undergoing final revisions and will be finalized prior to the Final Hearing in September.

Interested Party:	**KivIA**	**Rec No.:**	**KivIA-FWS-3**
Re:	**Aquatic Effects Monitoring Plan Reference Areas**		

Request Made by Interested Party:

Prior to the technical meeting, the KivIA requested that the Proponent incorporate additional reference lakes in the monitoring program. The purpose of this request was to allow for the ability to better distinguish between mine-related impacts and local variability in the watershed, a concern that was also brought forth by ECCC. At the technical meeting, the Proponent committed to completing a three-year reference lake monitoring program which will commence in 2025. Results of the reference lake monitoring program will be reported in the 2025, 2026 and 2027 Annual Reports, including the Aquatic Effects Monitoring Plan Annual Reports. The KivIA appreciates the Proponent's collaboration on this commitment.

Agnico Eagle's Response to Request:

Agnico Eagle thanks the KivIA for the comment and reiterates its commitment as discussed at the Technical Meeting in June, as follows:

2024 WLA Commitment Number	Party	2024 WLA TC ID	Subject	Commitments (as of 12-Jun-24)	Commitment Timeline
WLA-05	KivIA ECCC	**KivIA-TC-03 ECCC-TC-15**	AEMP Reference Lakes	Agnico Eagle will complete a reference lake monitoring program that includes Peter Lake and an additional reference lake, as well as existing reference stations at Inuggugayualik Lake and Pipedream Lake located near the Meadowbank Mine Site. This three year study will be initiated in 2025 and will be aligned with the sample collection and analysis approach of the AEMP, and results will be included as an annex to the AEMP annual report. At the end of this three year period, based on the results of the study, Agnico Eagle will consider if this reference lake program should be integrated into the AEMP or continued independently. The same sampling methodology and analytical techniques will be followed at all lakes included in the monitoring program.	Three Year study initiating in 2025

Interested Party:	**KivIA**	**Rec No.:**	**KivIA-FWS-4**
Re:	**Lake B7 Remediation**		

Request Made by Interested Party:

Prior to the technical meeting, the KivIA asked the Proponent to include further detail on Lake B7 remediation in the Interim Closure and Reclamation Plan. The reason for this request is that the storage of saline groundwater in Lake B7, instead of tailings, raises the possibility of remediating Lake B7 to sustain aquatic life and be connected to the local watershed during closure and post-closure. The Proponent committed to monitoring Lake B7 during operations to assess the potential requirement of remediation of Lake B7 at closure. The KivIA is pleased with the collaboration efforts of the Proponent on this issue and looks forward to reviewing the monitoring work as it is undertaken.

Agnico Eagle's Response to Request:

Agnico Eagle thanks the KivIA for the comment and reiterates its commitment as discussed at the Technical Meeting in June, as follows:

2024 WLA Commitment Number	Party	2024 WLA TC ID	Subject	Commitments (as of 12-Jun-24)	Commitment Timeline
WLA-03	KivIA	**KivIA-TC-04**	Lake B7 Remediation	Agnico Eagle commits to monitor Lake B7 during operations to assess the potential requirement to remediate Lake B7 at closure. Based on monitoring during operations of Lake B7 and in review of predictions, this data will support the development of an appropriate path forward with respect to closure of Lake B7. This will enable the development of a comprehensive Final Closure and Reclamation Plan, with assumptions that have been validated by site data.	Throughout Mine Operations

Interested Party:	**KivIA**	**Rec No.:**	**KivIA-FWS-6**
Re:	**Agnico Eagle Commitment 2 and Saline Groundwater Isolation**		

Request Made by Interested Party:

The importance of Meliadine Lake for traditional uses has been recognised throughout the various licencing and permitting processes for the Meliadine Project, and as such, the Proponent offered a commitment assuring the KivIA that saline groundwater is and will continue to be managed separately from surface contact water that is discharged into Meliadine Lake.

Given the value to Kivallarmiut of Meliadine Lake and the severity of the impacts of discharge of saline groundwater to this environment, the KivIA recommends that the Proponent's Commitment 2 be included as a Term and Condition to the amended Water Licence.

Agnico Eagle's Response to Request:

Agnico Eagle reiterates the referenced commitment as discussed at the Technical Meeting in June, as follows:

2024 WLA Commitment Number	Party	2024 WLA TC ID	Subject	Commitments (as of 12-Jun-24)	Commitment Timeline
WLA-02	KivIA	**KivIA-TC-01**	Meliadine Discharge Quality and Quantity	Agnico Eagle confirms through its discussion and agreement with the KivIA that underground saline groundwater will continue to be managed separately from surface contact water, and under no circumstances be discharged to Meliadine Lake. Underground saline groundwater is defined as water from groundwater inflows to the underground operation.	Throughout Mine Operations

Agnico Eagle does not see the need to add this as a Condition within the Water Licence as the Water Management Plan already defines the movement of saline water into the saline water management system and discharge to the marine environment. In addition, Agnico Eagle proposes to add a commitment list as an appendix to the annual report where commitments made during the Water Licence Amendment process would be tracked and updated accordingly.

Interested Party:	**KivIA**	**Rec No.:**	**KivIA-FWS-7**
Re:	**Review of Draft Water Licence Framework**		

Request Made by Interested Party:
The KivIA appreciates the Proponent providing a draft Type A Water Licence for review in advance of the public hearing. The KivIA's comments are below:

Agnico Eagle's Response to Request:
Agnico Eagle appreciates the review of KivIA on the Draft Water Licence Framework and our responses are provided in the below table. To facilitate review, Agnico Eagle has also included the revisions presented in the June 7, 2024 submission of the Draft Water Licence Amendment Framework. Green text represents proposed additions, while orange text with strikeout represents proposed removals.

Part, Item in Licence	Agnico Eagle Proposed Edit Provided on June 7, 2024	KivIA Comment	Agnico Eagle Response
General comment	n/a	The KivIA is seeking to have the commitment list incorporated as an appendix to the licence.	Agnico Eagle proposes to add a commitment list as an appendix to the annual report where commitments made during the Water Licence Amendment process would be tracked and updated accordingly.
Part B, Item 10	The Licensee shall, for all Plans submitted under this Licence, include a proposed timetable for implementation. Plans submitted cannot be undertaken without subsequent written Board approval and direction, subject to the following exception. Unless otherwise directed by the Board, Plans submitted may be undertaken without further Board approval and direction after a 60 day period has elapsed following submission by the Proponent. The Board may alter or modify a Plan if necessary to achieve the legislative objectives and will notify the Licensee in writing of acceptance, rejection or alteration of the Plan.	The KivIA seeks to ensure, that should the Board otherwise direct that Plans may be undertaken without further Board approval and direction after 60 days, comments of the KivIA and other Participants are addressed prior to issuing any such approval. The "approving the plan because a response hasn't been provided" approach will create restrictions on the NWB's discretion and will risk eliminating consultation and public input on important amendments to Plans.	The NWB (rather than the DIO and/or participants in the process) are the decision makers on water licencing matters under the Nunavut Agreement, and the KIA suggested wording could be seen as a delegation of this discretion. Agnico Eagle does not see the June 7 wording as a limit on the NWB's discretion. 60 days is a reasonable public comment period. The current approach has the undesirable effect of requiring the Proponent to operate under out of date plans, which is not optimal from an environmental standpoint.
Part B, Item 14	~~The Licensee shall, within sixty (60) days of the approval of this Licence by the Minister, submit to the Board for review the following updated management plans to reflect the proposed changes and to take into account commitments made during the technical review of the Application and Public Hearing process:~~ ~~a. Water Management Plan;~~ ~~b. Groundwater Management Plan~~ ~~c. Waste Management Plan; and~~ ~~d. Interim Closure and Reclamation Plan.~~	The KivIA is of the view that there must be language within the licence reflecting the commitments that the Proponent made to update certain Plans. If the Proponent's commitment is to update various Plans and provide them to KivIA and other Participants within 60 days, there is no reason to exclude the commitments from the licence.	Agnico Eagle had provided the following notice to NWB in the June 7 mark-up: *Agnico Eagle has already made commitments to update various plans and are presented in the commitment list to provide 60 days from licence amendment*. Agnico Eagle is of the opinion that one-time commitments (e.g., like a plan update) should not be embedded as a Licence condition as those should be reflective of ongoing conditions for Agnico Eagle to comply with. Therefore, Agnico Eagle proposes to add a commitment list as an appendix to the annual report where commitments made during the Water Licence Amendment process would be tracked and updated accordingly.

Part, Item in Licence	Agnico Eagle Proposed Edit Provided on June 7, 2024	KivIA Comment	Agnico Eagle Response
Part C	Replaced all items	The entirety of Part C remains under review by KivIA pending resolution of the Security Management Agreement outstanding issues. In addition, the KivIA is of the view the 2025 Work Plan be added to paragraph 1.	Agnico Eagle had provided proposed updates to this whole Part and replaced with new items, which were issued to KivIA and CIRNAC for review. Review is ongoing with both parties and will be finalized by the Final Hearing.
Part C, Item 7	~~The Licensee shall, within six (6) months following commencement of Commercial Operation and at the time the Licensee files the Final Reclamation and Closure Plan as required under the Licence, submit to the Board for review in writing an updated reclamation cost estimate, using the RECLAIM Reclamation Cost Estimating Model (Version 7.0 or the most current version at the time the updated reclamation cost estimate is submitted to the Board).~~	The KivIA is of the view that section 7 should not be removed but instead be amended to state: *The Licensee shall, at the time the Licensee files the Final Reclamation and Closure Plan as required under the Licence, submit to the Board for review in writing an updated reclamation cost estimate, using the RECLAIM Reclamation Cost Estimating Model (Version 7.0 or the most current version at the time the updated reclamation cost estimate is submitted to the Board)*	Agnico Eagle agrees with the KivIA's revised wording.
Part D, Item 17	The Licensee shall not excavate and/or remove material from the quarry beyond a depth of one (1) metre above the ordinary High Water Mark or above the Groundwater table, to prevent the potential contamination of surface and Groundwater. The quarrying shall be in accordance with all applicable legislation. Quarrying should also give due consideration to industry standards including the Northern Land Use Guidelines, Pits and Quarries (INAC, 2009, or as revised).	The KivIA does not agree to the amendment proposed by the Proponent. The KivIA recommends that section 17 be amended to state the following: 17. *The Licensee shall not excavate and/or remove material from the quarry beyond a depth of one (1) metre above the ordinary High Water Mark or above the Groundwater table, to prevent the potential contamination of surface and Groundwater. The quarrying shall be in accordance with all applicable legislation, and give due consideration to industry standards including the Northern Land Use Guidelines, Pits and Quarries (INAC, 2009, or as revised).*	Agnico Eagle had provided the following notice to NWB in the June 7 mark-up: *This provision is too broadly drafted and vague. The Licence should not make "all applicable standards" legally binding* The KivIA's revised wording is acceptable.

Part, Item in Licence	Agnico Eagle Proposed Edit Provided on June 7, 2024	KivIA Comment	Agnico Eagle Response
Part D, Item 19	The Licensee shall, during the Construction of all engineered structures relating to water and waste, provide the required supervision and field checks by an appropriately qualified Engineer in such a manner that the project specification can be enforced and, where required, the quality control measures can be followed. The Licensee shall maintain all Construction records of all engineered structures to be made available at the request of the Board and/or an Inspector.	The KivIA is seeking clarity from the Proponent as to why the addition of "relating to water and waste" was made.	The addition was made because not all engineered structures at a mine site relate to water and waste. As the Water Licence only has jurisdiction to regulate water and waste, the revision is suggested for clarity.
Schedule C	Proposed new items	Security Schedule Milestones: This Schedule remains under review by KivIA.	Agnico Eagle proposed a new Schedule related to security, which was issued to KivIA and CIRNAC for review. Review is ongoing with both parties and will be finalized by the Final Hearing.

CROWN-INDIGENOUS RELATIONS AND NORTHERN AFFAIRS CANADA (CIRNAC)

Interested Party:	**CIRNAC**	**Rec No.:**	**CIRNAC-FWS-01**
Re:	**Status of the Technical Review Comments**		

Request Made by Interested Party:
Per NWB's request (dated March 26, 2024) to review the 2024 Water Licence Amendment Application by Agnico Eagle Mines, CIRNAC submitted Six Technical Review Comments and associated recommendations on April 26, 2024.

Agnico Eagle responded satisfactorily to CIRNAC to address a few concerns before the Technical meeting and provided further clarification during the meeting. Following our in-person meeting with Agnico Eagle on July 05, 2024, in Ottawa, a revised Adaptive Management Plan (AMP) has been submitted to the NWB satisfactorily addressing the technical comments related to the AMP.

Therefore, CIRNAC identifies all the technical review comments submitted on April 26, 2024, as resolved.

Agnico Eagle's Response to Request:
Agnico Eagle appreciates the time and discussions with CIRNAC in order to resolve all technical comments associated with the Water Licence Amendment.

Interested Party:	**CIRNAC**	**Rec No.:**	**CIRNAC-FWS-02**
Re:	**Adaptive Management Plan**		

Request Made by Interested Party:
Technical review comments related to the Adaptive Management Plan have been resolved, and CIRNAC recommends that it be included in the license.

However, under the Adaptive Management Plan principle, language must be added indicating that the Water License shall prevail if there is any conflict or inconsistency between the terms and conditions of the Water License or the Project certificate and the Adaptive Management Plan. Although AMP aims to give as much operational flexibility as possible to address water management hazards, it should also uphold NWB's authority and indicate that the Water License supersedes any conflicting requirements outlined in the Adaptive Management Plan.

As discussed during the meeting on July 5th, it was agreed that AEM, CIRNAC and the KivIA would schedule a conference call with the NWB before the Public Hearing to seek input on satisfactory language to be included in the AMP. Agnico Eagle was to take the lead in scheduling this call, and CIRNAC would request NWB to prioritize this before the Public Hearing.

Agnico Eagle's Response to Request:
Agnico Eagle, CIRNAC, and the NWB met on August 12, 2024 to discuss language to be included in the Adaptive Management Plan. Following the meeting, Agnico Eagle provided comment on the wording proposed by CINRAC and was subsequently provided to the NWB on August 14, 2024 to confirm acceptable wording. The NWB confirmed they agreed with the proposed wording.

The following has been added to the Adpative Management Plan, as provided in Appendix A of this response package:

> *In the event of any conflict or inconsistency between the terms and conditions of the Water Licence and the Adaptive Management Plan, the Water License shall prevail as per Part B, Items 20 and 21 of the current water licence.*

Interested Party:	**CIRNAC**	**Rec No.:**	**CIRNAC-FWS-03**
Re:	**Security Estimate**		

Request Made by Interested Party:

CIRNAC has presented its security estimate to Agnico Eagle to update the security amount for the existing license and associated activities related to the current amendment application. CIRNAC intended to discuss the security amount during our in-person meeting in Ottawa on July 05, 2024. Unfortunately, Agnico Eagle was not ready to discuss this during the meeting. CIRNAC looks forward to addressing Security at the Public Hearing and seeks the NWB's direction on whether the Board would like security to form part of CIRNAC's presentation on outstanding information requests.

Agnico Eagle's Response to Request:

On August 15, 2024 Agnico Eagle, the KivIA, and CIRNAC agreed to security. The Security Management Agreement is undergoing final revisions and will be finalized prior to the Final Hearing in September.

Interested Party:	**CIRNAC**	**Rec No.:**	**CIRNAC-FWS-04**
Re:	**Security Management Agreement**		

Request Made by Interested Party:

CIRNAC is reviewing the Draft Amended Security Management Agreement proposed by AEM. CIRNAC is working on updating the current language of the Proposed Amended Security Management Agreement between Canada, the Kivalliq Inuit Organization (KIA) and Agnico Eagle. The update aims to align the agreement's language with the Department of Crown-Indigenous Relations and Northern Affairs Act, the Nunavut Agreement, and the Nunavut Waters and Nunavut Surface Rights Tribunal Act. CIRNAC's update also reinforces and aligns the Minister's responsibilities, powers, functions and authorities in relation to land and water management throughout Nunavut, as outlined in these acts. CIRNAC would inform and involve NWB in this process as required and is working diligently to provide its response to the NWB and partners before the Public Hearing.

Agnico Eagle's Response to Request:

On August 15, 2024 Agnico Eagle, the KivIA, and CIRNAC agreed to security. The Security Management Agreement is undergoing final revisions and will be finalized prior to the Final Hearing in September.

Interested Party:	**CIRNAC**	**Rec No.:**	**CIRNAC-FWS-05**
Re:	**Draft Water Licence Amendment Framework**		

Request Made by Interested Party:
CIRNAC is reviewing the draft Water Licence Amendment Framework and Agnico Eagle's proposed edits. However, issues related to the Security Estimate and Security Management Agreement must be resolved before CIRNAC can provide edits and comments on the draft framework. As such, CIRNAC will update the board and provide comments on this matter in due time.

Agnico Eagle's Response to Request:
The NWB requested Agnico Eagle to provide a Draft Water Licence; this was provided to all Parties in a timely way on June 7, 2024. Agnico Eagle would appreciate a timeline on when comments will be provided by CIRNAC in order for Agnico Eagle to review and provide comments to our Licence.

ENVIRONMENT AND CLIMATE CHANGE CANADA (ECCC)

Interested Party:	**ECCC**	**Rec No.:**	**ECCC-TC-11**
Re:	**Mitigating predicted post closure water quality exceedances: Part B**		

Request Made by Interested Party:

ECCC recommends the Proponent update the Interim Closure and Reclamation Plan to incorporate the measures that were proposed at the technical meeting for preventing potential impacts to aquatic life from water quality during post closure. This includes the timing of their implementation. Presently, the plan incorrectly states "The water quality model results indicated that water in the flooded pits will meet the discharge criteria and post closure treatment will not be required." ECCC recommends that the Nunavut Water Board outline a timeline for the update of the Interim Closure and Reclamation Plan in their decision.

Agnico Eagle's Response to Request:

Potential mitigation measures that were discussed at the June 5, 2024 technical meeting, the following mitigation measures were discussed, listed by Closure waterbody. These will be presented in the next iteration of the Interim Closure and Reclamation Plan.

<u>Lake J1</u>

With respect to the predicted exceedances in Lake J1, note that the maximum monthly predicted ammonia concentration is 0.59 mg/L, as compared to the guideline value of 0.58 mg/L (Figure 1). In total, there are exceedances predicted for 8 months in 2044, out of 972 months modelled for the Closure and Post-closure phases (0.8% of the model timeline). These slight exceedances are limited in magnitude and duration and are within the range of potential model error. As stated previously, the Meliadine water balance and water quality model will continue to be updated (Water Licence Part E, Item 13), and mitigation measures will be proposed should the predicted ammonia concentrations in Lake J1 continue to exceed water quality guidelines.

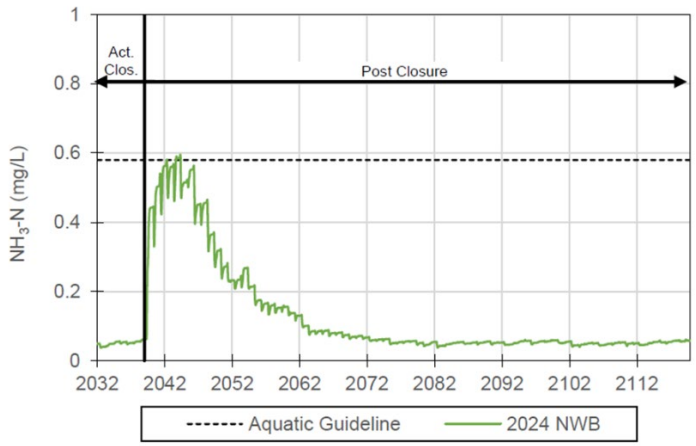

Figure 1: Predicted Closure and Post-closure ammonia concentrations in Lake J1

WES04

The ratio of exposed pit walls in WES04 (0.84 ha) to surrounding catchment area (0.2 ha) is approximately 4:1, which along with a large lake surface area (4.17 ha) results in evapoconcentration of the pit wall loadings within this pit lake. As the predicted exceedances are largely a result of these physical characteristics of the pit, one mitigation measure that could be enacted would be redesigning the pit shell to raise the spill point elevation, and thereby reducing the ratio of pit wall contact water to surrounding catchment area.

A secondary potential mitigation measure would be to cut a channel from the east end of the WES Pit Lake to the northeast corner of WES04 (as shown in Figure 2) to enhance flows through the WES04 pit lake.

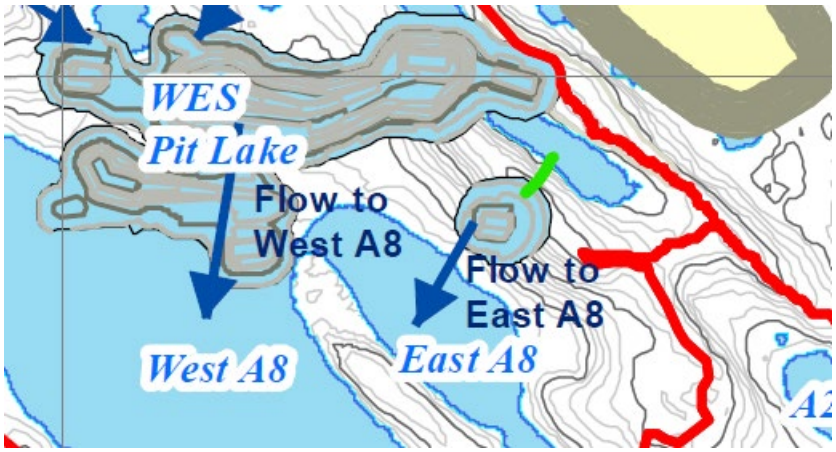

Figure 2: WES04 post-closure flow paths. Potential channel cut indicated by green line.

SP6

The predicted exceedances in SP6 for nitrate, ammonia, chloride, arsenic, cobalt, phosphorus, and selenium moderate over time following the Active Closure phase, as additional non-contact water flows through the SP6 pond. If continued monitoring data and associated updated model predictions continue to indicate that these (or other parameters) are expected to exceed guidelines during the closure phases, a potential mitigation option would be to flush SP6 with freshwater from Meliadine Lake, prior to actively filling it with pumped lake water. This mitigation is feasible, and the volumes of water required (one pond volume = 1.09 Mm^3) would remain well below the withdrawal rates from Meliadine Lake for active pit filling assessed in the 2014 FEIS (17.06 Mm^3/year).

Interested Party:	**ECCC**	**Rec No.:**	**ECCC-TC-17**
Re:	**Parameter concentration normal ranges in Meliadine Lake**		

Request Made by Interested Party:
ECCC recommends the Proponent evaluate existing water quality baseline data from the East Basin of Meliadine Lake in order to better establish East Basin specific 'normals'. East Basin specific 'normals' are required in order to evaluate project effects in the Aquatic Effects Monitoring Program.

Agnico Eagle's Response to Request:
Agnico Eagle feels that the East Basin specific "normals" are not required for the following reasons:

- The 2014 FEIS predicted changes in the East Basin due to mining activities and interannual climate variability.
- As per the AEMP Response Framework, additional investigations may be conducted 1) if concentrations exceed the Normal Range and water quality predictions, and 2) if concentrations are trending toward exceedance of AEMP Action Levels for the protection of aquatic life or human health.
- Normal Ranges are used to identify a short list of parameters in the East Basin (exposure area) that may be trending higher compared to baseline and reference conditions, or even concentrations recorded in the pre-mining phase (e.g., see plots of all the water quality data going back to the late 1990s in Appendix C2 in the 2023 AEMP report).
- Water quality predictions take precedence over the Normal Ranges because the Meliadine Mine was approved based on the expectation that water quality in the East Basin would change due to the discharge of treated contact water. It is expected that the concentrations of some parameters will increase in the East Basin more than the magnitude of changes that would be expected due to climate change or natural variability. During closure to post-closure, concentrations are predicted to gradually decrease to background levels.

However, Agnico Eagle has committed to water quality monitoring at representative reference lakes in the region starting in 2025 (refer to commitment WLA-05 made as part of this review process). The findings from this study may help decipher natural vs mining-related changes in water quality in Meliadine Lake.

Interested Party:	**ECCC**	**Rec No.:**	**ECCC-TC-19**
Re:	**Closure Criteria for surface water quality**		

Request Made by Interested Party:
ECCC recommends that the Interim Closure and Reclamation Plan be updated to specify preliminary water quality criteria for closure that will be protective of aquatic life for all waterbodies, since, at closure, waterbodies will all be reconnected to the fish bearing regional surface water system regardless of their Schedule 2 status as tailings impoundment areas.

Agnico Eagle's Response to Request:
Given the Metal and Diamond Mining Effluent Regulations (MDMER) clearly addresses the concern that ECCC has raised in the comment, and the specification requested by ECCC would directly contradict the MDMER, Agnico Eagle challenges the Request by ECCC and the NWB should not accept ECCC's recommendation as per the following reasons.

MDMER Schedule 2 Requirements
Agnico Eagle is proposing to add waterbodies associated with the Meliadine Mine to Schedule 2 of the MDMER to facilitate mine waste management. If a waterbody is added to Schedule 2 of the MDMER, "the owner or operator of a mine may deposit or permit the deposit of waste rock, acutely lethal effluent or effluent of any pH and containing any concentration of a deleterious substance that is prescribed in section 3 into a tailings impoundment area" (MDMER subsection 5(1)).

When a waterbody is added to Schedule 2 of the MDMER this is based on an assumption that the waterbody is no longer fish habitat. This is one of the reasons a Fish Offsetting Plan is prepared to support such applications. Once a waterbody is added to Schedule 2 of the MDMER, a mine operator is permitted to deposit deleterious substance above MDMER limits into that waterbody:

> ***5 (1)*** *Despite section 4, the owner or operator of a mine may deposit or permit the deposit of waste rock, acutely lethal effluent or effluent of any pH and containing any concentration of a deleterious substance that is prescribed in section 3 into a tailings impoundment area that is either*
>
> > ***(a)*** *a water or place set out in Schedule 2; or*
> >
> > ***(b)*** *a disposal area that is confined by anthropogenic or natural structures or by both, other than a disposal area that is, or is part of, a natural water body that is frequented by fish.*
>
> ***(2)*** *The authority in subsection (1) is conditional on the owner or operator complying with sections 7 to 28.*
>
> ***(3)*** *For the purposes of this section, any acutely lethal effluent is prescribed as a deleterious substance.*

In accordance with Section 28 of the MDMER, water/effluent from the mine area must be deposited through a final discharge point (as defined in the MDMER), must not be acutely lethal (as defined in the MDMER), and it must be in compliance with the maximum authorized concentrations of prescribed deleterious substances described in Schedule 4 of the MDMER.

In other words, the MDMER:

- Do not prescribe any conditions related to the quality of water in an area listed on Schedule 2 of the MDMER.
- Do prescribe conditions related to discharge from the final discharge point.

The Type A Water Licence should not include any criteria for water quality within the water bodies that will be added to Schedule 2 of the MDMER, because this would entirely contradict the MDMER. Had the Minister determined that water quality criteria within Schedule 2 waterbodies needs to be protective of aquatic life, this would have been clearly stated in the MDMER. It is not.

MDMER Recognized Closed Mine Provisions

The MDMER continue to apply to a mine until such time as that mine becomes a recognized closed mine as defined Section 32 of the MDMER. The MDMER do not automatically cease to apply when a mine ends commercial production and enters the closure phase.

Any discharges from Schedule 2 waterbodies to non-Schedule 2 waterbodies at closure will meet all MDMER criteria, which again do not make any reference to "*water quality criteria for closure that will be protective of aquatic life for all waterbodies"*.

Until a mine becomes a recognized closed mine, there are no changes in the legal requirements related to areas listed on Schedule 2 of the MDMER.

It is important to emphasize that mines are not required to become recognized closed mines. Seeking to become a recognized closed mine is voluntary. There are many closed mines across Canada that continue remain subject to all requirements and conditions of the MDMER, including the Polaris Mine in Nunavut that has remained subject to the MDMER since the mine closed in 2002.

Once a mine becomes a recognized closed mine, all requirements and conditions of the Regulations cease to apply[1] and any effluent released from the mine is subject to the general prohibitions of subsection 36(3) of the *Fisheries Act*.

[1] There are two exceptions to this: the owner or operator must inform ECCC if they intend to re-open the mine (subsection 32(3)) and identifying information must be provided if ownership of the mine is transferred (section 33).

Implications for Meliadine and the Request

If the waterbodies in question are added to Schedule 2 and designated as waste deposition areas as proposed, then all effluent from those areas through the final discharge point would be required to be non-acutely lethal and would be required meet all effluent discharge criteria already specified in the Regulations.[2] This would continue until such time as Agnico Eagle chooses to seek recognized closed mine status for the Meliadine Mine and meets the conditions prescribed section 32 of the MDMER.

Until such time as the Meliadine Mine becomes a recognized closed mine, it is Agnico Eagle's opinion that ECCC has no legal authority to:

- Prescribe any conditions related to the quality of water in these waste deposition areas, since they would continue to be listed on Schedule 2.
- Prescribe any requirements or conditions on the effluent discharge from these waste deposition areas, apart from the requirements and conditions of the MDMER which will continue to apply.

Furthermore, becoming a recognized closed mine would not change the status of these waste deposition areas. They would continue to be listed on Schedule 2 of the MDMER. To date, no waterbody has been removed from Schedule 2[3] and the legal implications of such a removal are uncertain, particularly in cases where the water bodies were partially or completely permanently infilled with mine waste.

Even if the Meliadine Mine becomes a recognized closed mine, unless and until these water bodies are removed from Schedule 2, it is Agnico Eagle's understanding that the legal status of these waterbodies would not change, and that ECCC would continue to have no legal authority to prescribe any conditions related to the quality of water in these waste deposition areas, since they would continue to be listed on Schedule 2.

That said, Agnico Eagle recognizes ECCC's underlying concern. If and when Agnico Eagle decides to seek authorization to reconnect these water bodies to the regional surface water system, it will engage with the appropriate authorities within the Government of Nunavut and the Nunavut Water Board.

[2] Agnico Eagle recognizes that future amendments to the Regulations may mean that future requirements differ from the current requirements, but that would not change the fact that effluent from the tailings impoundment area would be subject to the requirements and conditions of the Regulations as they exist at that time.
[3] The only possible way to remove a water body from Schedule 2 would be to amend the Regulations, but this has never been done.

Interested Party:	**ECCC**	**Rec No.:**	**ECCC-TC-29**
Re:	**Deficiencies in original estimation of water availability (in support of DFO #2)**		

Request Made by Interested Party:

ECCC recommends that the Nunavut Water Board not include an authorized water withdrawal rate from Meliadine Lake during closure in an amended licence, because there is uncertainty on what rate the lake can support without impacts occurring to the quality of the aquatic environment. Moreover, the proposed licence term does not cover the closure period. As such, there is time to revisit this topic closer to closure, once further data are collected and analyzed.

Agnico Eagle's Response to Request:

Agnico Eagle does not agree that closure pit flooding volumes should be excluded from the Water Licence. The Proponent requires certainty for closure prior to investing in a jurisdiction. In this case the approved application with the NIRB and NWB included conceptual closure plans that included flooding and associated volumes that were assessed for the closure concept. Those volumes were included in the original Water Licence as they were assessed with NIRB and agreed and approved by the NWB.

As was provided in responses to Technical Comments (ECCC-TRC-30), Agnico Eagle reiterates that the 2014 FEIS was assessed to pump 17.06 Mm^3/year over 10 years at closure to fill the pits. For this Application, we are asking for less than the assessed value, which is up to 8.5 Mm^3/year over six years to flood the pits. We feel this is appropriate and a reasonable approach for the closure activities at Meliadine Mine.

FISHERIES AND OCEANS CANADA (DFO)

Interested Party:	**DFO**	**Rec No.:**	**DFO-TRC-01**
Re:	**Inconsistencies in Waterbodies/Watercourse Impacted**		

Request Made by Interested Party:
DFO acknowledges AEM's response indicating that

> *"the Offsetting Plan should be referred to which provides a fulsome and comprehensive list of waterbodies and watercourses.*
>
> *Refer to Appendix E of this response package which provides the master list of waterbodies and watercourses listed under Section 35 and Section 36, as well as updated figures included in the most recent version of the Offsetting Plan."*

DFO considers this comment resolved.

Agnico Eagle's Response to Request:
Agnico Eagle appreciates DFO's comment on the resolution of this technical comment.

Interested Party:	**DFO**	**Rec No.:**	**DFO-TRC-02**
Re:	**Pit flooding at Closure**		

Request Made by Interested Party:
DFO requests the Proponent:

- *Commit to removing flow rates related to flooding of the pits post closure be removed from the Water Licence Amendment Application.*
- *Provide in the Closure and Reclamation Plan, detailed analysis of potential impact of pit flooding including modelling of water levels/balance, specific with withdrawal/fill rates, seasonal water level thresholds, monitoring plan and more detailed analyses, including an assessment of potential downstream effects on fish and fish habitat.*

DFO considers this comment unresolved.

Agnico Eagle's Response to Request:
Response to bullet 1)
Please refer to the response provide in ECCC-TC-29.

Response to bullet 2)
The majority of these items have been provided in the approved 2014 FEIS. Agnico Eagle is approved for 17.06 Mm^3/year. As per this application Agnico Eagle is looking at flood rate of 8.5 Mm^3/year. More details will be part of a final closure plan, to be submitted one year prior to closure.

Interested Party:	**DFO**	**Rec No.:**	**DFO-TRC-03**
Re:	**Fish Passage**		

Request Made by Interested Party:
DFO acknowledges in their response that AEM has committed to completing a field study to ensure the feasibility of the fish passage establishment, and working with DFO towards a final Fish Offsetting Plan.

DFO considers this comment resolved with commitment.

Agnico Eagle's Response to Request:
Agnico Eagle confirms fisheries and hydrology programs at Pistol Bay are being executed this summer. Further, we will continue to work collaboratively with DFO on the Fish Offsetting Plan. Based on this, Agnico Eagle also agrees this technical comment is resolved.

Interested Party:	**DFO**	**Rec No.:**	**DFO-TRC-04**
Re:	**Final Fish Offsetting Plan**		

Request Made by Interested Party:
DFO acknowledges in their response that AEM has committed to completing a 2024 field study to ensure the feasibility of the fish passage, and working with DFO towards a final Fish Offsetting Plan.

DFO considers this comment resolved with commitment.

Agnico Eagle's Response to Request:
Agnico Eagle confirms fisheries and hydrology programs at Pistol Bay are being executed this summer. Further, we will continue to work collaboratively with DFO on the Fish Offsetting Plan. Based on this, Agnico Eagle also agrees this technical comment is resolved.

APPENDIX A: ADAPTIVE MANAGEMENT PLAN – VERSION 2B

AGNICO EAGLE

MELIADINE GOLD MINE

Adaptive Management Plan for Water Management

AUGUST 2024
VERSION 2B

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LIST OF TABLES

DOCUMENT CONTROL

Version	Date	Section	Page	Revision	Author
DRAFT	January 2021	All	All	Developed based on a workshop with KivIA, CIRNAC, and ECCC held on January 21, 2020. Draft version of Adaptive Management Plan	Agnico Eagle Mines Limited
V1	February 2021			Updated based on a follow-up workshop with KivIA, CIRNAC, and ECCC held on February 2, 2021. Adaptive Management Plan to complete Commitment 15 with the Nunavut Impact Review Board and Commitment 3 with the Nunavut Water Board Submitted as part of the Saline Effluent Disposal to the Marine Environment Proposal to the NIRB (with copy to the NWB for the public registry)	Agnico Eagle Mines Limited
V2	June 2024	1	1-2	Updated based on discussion at Technical Meeting with KivIA and CIRNAC held on June 6, 2024. Added "or eliminated" to guiding principle 1.	Agnico Eagle Mines Limited - Permitting Department
		2.2	9	Added new section and details on water management at Discovery.	
				Formatting was cleaned-up where appropriate throughout the document	
V2a	July 2024	1, 2.1, 2.1.1	1-2 4	Updated based on discussion during the July 5, 2024 workshop to address commitment WLA-16	Agnico Eagle Mines Limited - Permitting Department
			1	Added Project Certificate Condition 25 from the May 2022 AMP version	
			2	Updated guiding principal bullets	
		Table 1	7	Add footnote number 6	
		Table 2	8-9	Added management activity number 5 under "normal". Modified wording of number 7 under "caution". Added footnote number 2.	
				Additions are marked in right-hand margin as follows: v2a	
V2b	August 2024	1	3	Added paragraph based on agreed language from CIRNAC and the NWB for inclusion in the plan. marked in right-hand margin as follows: V2b	

ACRONYMS

Agnico Eagle	Agnico Eagle Mines Limited
CIRNAC	Crown-Indigenous Relations and Northern Affairs Canada
CP	Collection Pond
ECCC	Environment and Climate Change Canada
FEIS	Final Environmental Impact Statement
GWMP	Groundwater Management Plan
KivIA	Kivalliq Inuit Association
NIRB	Nunavut Impact Review Board
NWB	Nunavut Water Board
Mine	Meliadine Gold Mine
SSWQO	Site Specific Water Quality Objectives
TDS	Total Dissolved Solids

UNITS

m^3	cubic metre(s)
m^3/day	cubic metre(s) per day

SECTION 1 • INTRODUCTION

Agnico Eagle Mines Limited (Agnico Eagle) operates the Meliadine Gold Project (the Mine) located approximately 25 kilometres (km) north of Rankin Inlet (Figure 1), Nunavut, and 80 km southwest of Chesterfield Inlet in the Kivalliq Region of Nunavut. The Mine is subject to the terms and conditions of both the amended Project Certificate issued by the Nunavut Impact Review Board (NIRB) in accordance with the Nunavut Agreement Article 12.5.12 on February 26, 2019 (NIRB 2019) and the Type A Water Licence No. 2AM-MEL1631 (the Licence) issued by the Nunavut Water Board (NWB) on April 1, 2016 (NWB 2016).

Agnico Eagle applied for amendments to the Water Licence and to the Project Certificate to incorporate changes required for mine operation. This document has been prepared to complete Commitment 3 for the Type A Water Licence Amendment and Commitment 15 for the Project Certificate amendment:

- Project Certificate Commitment 15
  - A call will be held with interested parties to review the framework of the Adaptive Management Plan. (KivIA, ECCC, CIRNA). The Adaptive Management Plan will include a decision tree specifying the conditions under which surface water will be diverted into the saline effluent waterlines for marine disposal and the volumes that will be diverted under those conditions. The decision tree will be designed such that discharges to Meliadine Lake are minimized.
  - Agnico Eagle will provide an update on the framework of the Adaptive Management Plan
- Project Certificate Terms and Conditions 25
  - Unless specified in the Groundwater Management Plan and/or Adaptive Management Plan, while the dual waterlines are operational, the capacity is 6,000 m^3/day to 12,000 m^3/day of saline water with the remainder (8,000 m^3/day to 14,000 m^3/day) comprised of surface water for a total capacity of 20,000 m^3/day.
  - Agnico Eagle shall minimize or eliminate surface contact water discharges to Meliadine Lake by discharging on-site surface contact water in accordance with the Groundwater Management Plan and/or Adaptive Management Plan.
  - The Adaptive Management Plan must set out the guiding principle, normal operating conditions and adaptive thresholds for management of water for the waterline.
  - Agnico Eagle shall manage the total daily volumes of water it is authorized to discharge via the dual waterlines into Melvin Bay in accordance with the Groundwater Management Plan and/or Adaptive Management Plan.
  - Agnico Eagle will consult KivIA, GKD, ECCC, CIRNA and DFO with respect to the contents of the Plan and any required adaptive management and mitigation measures.

v2a

- Water Licence Amendment Commitment 3 (2020 Application):
  - Agnico Eagle to provide an Adaptive Management Plan which includes: the site-specific water quality objectives for chloride; and a decision tree specifying the conditions under which surface water will be diverted into the saline effluent pipeline for marine disposal.
- Water Licence Amendment Commitment 16 (2024 Application):
  - Agnico Eagle committed to meeting with CIRNA, prior to the Public Hearing, to discuss unresolved items regarding the Adaptive Management Plan. Meeting was held July 5, 2024 and included CIRNA, KivIA, and Agnico Eagle.

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This document presents a framework for the Adaptive Management Plan (AMP) for the following activities:

- Discharge through the waterline (Section 2.1)
- Development of a site-specific water quality objective (Section 2.2)

This AMP will be effective after the waterline and this plan are approved.

While the primary purpose of the waterline is for discharge of saline groundwater, a commitment has been made by Agnico Eagle to divert surface contact water through the waterline as a means to reduce discharges to Meliadine Lake. Flows from the sewage treatment plant and collection ponds (CP3, CP4, and CP5) will be prioritized for saline storage and subsequent discharge to Melvin Bay, to the extent practicable.

The guiding principles that apply to this AMP include:

1. Surface contact water discharges to Meliadine Lake will be minimized or eliminated;
2. Water will be discharged to Meliadine Lake only if there is insufficient residual capacity in the waterline system and stored surface contact water volumes are outside of normal operating levels set in place in consideration of D-CP1 design;
3. Agnico Eagle will proactively assess the feasibility of all potential adaptive management actions.
4. Design criteria of infrastructure will be respected[1].
5. Operate treatment plants at stable rates to reduce risk of process upset.
6. Discharge rates throughout the year will be modulated based on the water balance.

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The primary objective of the AMP is to document specific management actions and mitigation measures to be taken, and to implement specific actions so that thresholds are not exceeded. Mitigation measures may include special studies, operational changes, revised or new water and waste management systems, new or expanded conveyance systems, structures and/or facilities, or

v2a

[1] Refer to details in Tables 1 and 2

implementing mitigation activities to prevent, stabilize or reverse a change in environmental conditions or to otherwise protect the receiving environment.

The Adaptive Management Plan will be reviewed if deemed required to account for the dynamics of mine construction, operations and policy changes, and to adjust the adaptive management strategy as needed.

In the event of any conflict or inconsistency between the terms and conditions of the Water Licence and the Adaptive Management Plan, the Water License shall prevail as per Part B, Items 20 and 21 of the current Water Licence.

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SECTION 2 • ADAPTIVE MANAGEMENT PLAN

This section presents a summary of the adaptive management considerations for

- Discharge through the waterline (which considers and evaluates)
  - Discharging of Saline Water to the marine environment
  - Diversion of Surface Contact water to the waterline
  - Discharging of Surface Contact water to the freshwater environment
- Development of a site-specific water quality objective

2.1 Discharge through the Waterline

As described in the application (FEIS Addendum [Agnico Eagle 2020b]), the purpose for the Project Certificate addendum is for a change in conveyance of treated groundwater to Melvin Bay from trucks to a waterline (comprised of two parallel lines). This change in conveyance is required to meet operational requirements and the projected increase in groundwater inflow rates to the underground workings as mining progresses. The priority use of the waterline is for discharge of saline water to the marine environment; the adaptive management aspect is related to diversion of surface contact water from discharge in Meliadine Lake (Figure 2) to discharge in Melvin Bay (Figure 3).

Adaptive management actions will be implemented when site conditions divert from Normal Operating Conditions. For purposes of the waterline aspects of AMP, **Normal Operating Conditions** are defined in Table 1 and summarized as:

- Saline water capacity at site is less than 70% (open-water), 0% pre-freeze up, and <15% pre-freshet.
  - The pre-freeze up period starts no earlier than September 15.
- The dual waterline is operational and the capacity is 6,000 to 12,000 m^3/day of saline water and up to 14,000 m^3/day of surface contact water, for a total capacity of 20,000 m^3/day. v2a
  - The regular operational window for the waterline is open-water conditions from approximately late June to mid-October (or until consistent sub-zero temperatures are observed).
- Surface contact water capacity at site is less than 81% (open-water), less than 14% pre-freeze up, and less than 22% pre-freshet.
- End-of-pipe concentrations (CP1) for total dissolved solids (TDS) are less than the maximum average concentration as defined in water licence 2AM-MEL1631.

When conditions divert from “Normal”, management activities will be implemented as described in Section 2.1.1 and Table 2. The management activities will be applied in the order listed in Table 2.

2.1.1 Decision Tree

This draft AMP includes a decision tree to outline a process to determine when surface contact water would be discharged to Meliadine Lake and under what conditions surface contact water would be diverted to the Waterline (once approved) for discharge to Melvin Bay (Tables 1 and 2).

Water quantity thresholds for saline water management, the waterline, and surface contact water for the Normal Operating Conditions have been defined (Table 1). Definitions have also been provided for when conditions are outside of Normal Conditions and which then trigger management activities (as described in Table 2).

The framework to define conditions and to adaptively manage water will be based upon the following:

1) Saline Water Management
2) Waterline Operation
3) Contact Water Management
4) Site Water Quality

1. Saline Water Management

The primary purpose of the waterline is to allow sustainable management of saline water on site. Therefore, status of the saline water balance must be considered in the Adaptive Management Level classifications. Within Table 1, status of saline water management on site is considered with respect to the occupied capacity of the saline ponds, as well as medium-term (2 year) projection from the Saline Water Balance model. These two considerations as defined in Table 1 are based on adaptive management thresholds as defined in the Groundwater Management Plan (Agnico Eagle 2021).

2. Waterline Operation

In addition to the status of surface contact water in CP1, the ability of the waterline to convey CP1 water to Melvin Bay is considered in the classification of Adaptive Management Levels. The ability of the waterline to convey CP1 water is defined within Table 1 by three levels associated with the degree to which the line is operating (two lines, one line, or zero lines). The operation of the waterline is in consideration of maintenance, repairs, season, or other applicable conditions.

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3. Collection Pond 1 (CP1) Operating Levels

CP1 operating level thresholds provided in Table 1 are occupied storage capacities in CP1 converted from water elevation thresholds that are defined within the Operation, Maintenance and Surveillance (OMS) Manual for D-CP1. These levels were developed by the design engineer (Tetra Tech 2020a) and are controlled by the Responsible Person (RP) and Engineer of Record (EoR) as part of the Agnico Eagle Corporate Governance Structure, and are subject to change at the discretion of the RP and EoR. The thresholds defined in the OMS, and thus included within Table 1, consider three operating periods: a) the open-water season; b) prior to annual freeze-up; and, c) prior to the onset of the annual freshet

event. These thresholds are set in in order to minimize risk of impacts and consequences to the D-CP1 dike structure and its future performance.

The Adaptive Management Level classification under the open-water period is determined by the occupied storage capacity at any time during the open-water period. The Adaptive Management Level classification under the pre-freshet period is determined by the occupied storage capacity at the point immediately prior to freshet. The freeze up level Adaptive Management Level classification differs from the open-water and prior to freshet classifications, in that it requires calculation using the water balance.

The ability of the operation to meet the freeze up target, as noted in section 2.1, is dependent on the balance of anticipated precipitation and available discharge rates in relation to the current stored volume at any given time over the open-water season. Therefore, the site water balance will be applied to produce a forecast trendline to determine the minimum freeze up level that can be achieved based on the current stored water, the anticipated precipitation, available discharge capacity, and any other relevant inputs/outputs to CP1. The freeze up Adaptive Management Level at any given time over the open-water season will be determined based on where the water balance forecasts the operation is able to draw CP1 down to by freeze up. Similarly, the water balance forecast trendline will be applied to ensure the guiding principle of stable treatment plant operation can be met throughout the year. For example, if actual volumes begin tracking below the water balance trendline then discharge rates from CP1 will be decreased to allow the trendline to be followed to ensure stable treatment plant operation over the season and into freeze up can be achieved.

4. Site Water Quality

The final discharge location for surface contact water will be determined by capacity of the waterline and quality of the water in CP1. If there is capacity in the waterline, all or a portion of water from CP1 may be directed to the waterline. If there is insufficient capacity in the waterline for all or a portion of water from CP1, all or a portion of CP1 water may be discharged to Meliadine Lake. The determination of discharge to Meliadine Lake will depend on the adaptive management level (i.e., normal, caution, at-risk) and if the water (as measured at MEL-14) meets the discharge criteria stipulated in water licence 2AM-MEL1631.

Table 1 Operation Conditions for Saline Water, Waterline, and Contact Water

Category	Condition (Adaptive Management Level) Description	Normal	Caution	At Risk
1. Saline Water	Saline Pond Occupied Capacity open-water	<70%	>70%	>80%
	Saline Pond Occupied Capacity pre-freeze	0%	+5%	+10%
	Saline Pond Occupied Capacity pre-freshet	<15%	+15% (from Normal)	+20% (from Normal)
2. Waterline	Waterline Operation[1]	Both lines operating	One line shutdown	Both lines shutdown[2]
3. Collection Pond 1 (CP1) Operating Level[3]	Occupied storage open-water	<81%	>81%	>94%
	Occupied storage pre-freeze[4]	<14%	>14%	>22%
	Occupied storage pre-freshet	<22%	>22%	>27%
4. CP1 Water Quality	End-of-pipe TDS Concentrations (MEL-14)	Below the MAC	Two consecutive weekly samples equal to or greater than MAC[5]	Three consecutive weekly samples equal to or greater than MAC[5] OR A single exceedance of the MGC (once validated)[5]

MAC = maximum average concentration as defined in Water Licence 2AM-MEL1631 (the average concentration of any four consecutively collected samples taken from the identical sampling location and taken during any given timeframe); MGC = maximum grab concentration

1. In consideration of maintenance, repairs, and season. The regular operational window for the waterline is open-water conditions from approximately late June to mid October (or until consistent sub-zero temperatures are observed).
2. Seasonal shut-down of both lines is regular operating procedure and would not be categorized as high-risk
3. From the OMS. Levels are controlled by the Responsible Person (RP) and the Engineer of Record (EoR).
4. Applicable throughout the open-water season and determined from water balance as the ability to reach freeze-up operating condition (i.e., percentage storage) by freeze up under available discharge capacity. For instance if the water balance suggests levels can be lowered to only the "Caution" condition by freeze up then the status would be "Caution" and discharge conditions would be shifted accordingly.
5. As per standard practice, a result that exceeds the MAC or MGC will be validated through a repeat analysis or a re-sample.
6. Saline storage thresholds to be determined, see Table 2.

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Table 2 Adaptive Management Response to Maintain Normal Operating Conditions

Adaptive Management Level	Management Activity / Response / Action (Listed in Order of Priority Action)	Water Management Scope			
		1) Saline Water	2) Waterline	3) Surface Contact Water	4) Surface Contact Water Quality
Normal	1. Regular monitoring, inspections, maintenance.	√	√	√	√
	2. Confirm if saline water quantity is within forecast.	√	-	-	-
	3. Confirm if contact water quantity is within forecast.	-	-	√	-
	4. Maintain saline and contact water discharge through waterline as required, unless waterline is not available.	√	√	√	-
	5. If saline storage is below a certain threshold (TBD), consider using the waterline exclusively for surface contact water discharge. Refer to Table 1.	√	√	√	-
	6. If waterline is unavailable, but water capacity in CP1 is within normal, consider recirculating back to CP1.	-	-	√	-
Caution	1. Increased monitoring (e.g., priority analysis to confirm TDS in CP1; increase frequency of sampling in CP1), inspections, maintenance as required.	√	√	√	√
	2. Evaluate saline water quantity forecast.	√	-	-	-
	3. Evaluate contact water quantity forecast.	-	-	√	-
	4. Prioritize saline water for discharge through the waterline.	√	√	√	-
	5. If outside normal waterline operational window, evaluate starting discharge of water to Melvin Bay earlier and below the ice.	√	√	√	-
	6. Evaluate temporary discharge of higher flow rate (of both saline and surface contact water) to Melvin Bay.	-	√	-	-
	7. Maximize discharge of surface contact water to waterline (if available).	-	√	√	-
	8. After maximizing discharge of surface contact water to waterline (if available), evaluate CP1 water quality and operate discharge to Meliadine Lake within Water License criteria at rate required to reduce water levels in CP1 to normal.[1]	-	-	√	√

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Adaptive Management Level	Management Activity / Response / Action (Listed in Order of Priority Action)	Water Management Scope			
		1) Saline Water	2) Waterline	3) Surface Contact Water	4) Surface Contact Water Quality
At Risk[2]	1. Increased monitoring, inspections, maintenance as required	√	√	√	√
	2. Evaluate saline water quantity forecast	√	-	-	-
	3. Evaluate contact water quantity forecast	-	-	√	-
	4. Prioritize saline water for discharge through the waterline	√	√	-	-
	5. If outside normal waterline operational window, evaluate starting discharge of water to Melvin Bay earlier and below the ice.	√	√	√	-
	6. Evaluate temporary discharge of higher flow rate (of both saline and surface contact water) to Melvin Bay.	√	√	√	-
	7. Evaluate option to extend discharge window to Melvin Bay	-	√	-	-
	8. Utilize remaining capacity of waterline to maximize discharge of surface contact water to waterline	-	√	√	-
	9. After maximizing discharge of surface contact water to waterline (if available), evaluate CP1 water quality and operate discharge to Meliadine Lake within Water License criteria at rate required to reduce water levels in CP1 to normal.	-	√	√	√
	10. If CP1 water quality greater than TDS MAC (in three consecutive weekly end-of-pipe samples), stop discharge to Meliadine Lake.	-	-	-	√
	11. Evaluate possibility of temporary storage of surface contact water in open pits and/or saline ponds.	√	-	√	-
	12. If CP1 quantities are still at risk, evaluate requirement for emergency discharge to Meliadine Lake	-	-	√	-

√ = management activity applies to this aspect of water management; - = management activity does not apply to this aspect of water management

1. Discharge to Meliadine Lake under the "Caution" Level may be required. One example is if CP1 needs to be drawn down in preparation for freeze-up and winterization of the waterline has already begun or is completed.
2. When transitioning to the "At Risk" Level, notify the Nunavut Water Board and the Inspector.

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2.1.2 Volume

Models have been developed to predict future annual quantities of saline water (Golder 2020a) and surface contact water (Golder 2020b; SNC 2020) and to be managed. Results of these models are used to support projections and planning of annual quantity of water that could be discharged through the waterline. The Waterline application assessed a range of discharge rates from 6,000 m^3/day and up to 20,000 m^3/day. While the primary purpose of the waterline is for discharge of saline groundwater, a commitment has been made by Agnico Eagle to divert surface contact water through the waterline as a means to reduce discharges to Meliadine Lake.

The annual quantity of surface contact water that could be diverted to the waterline and discharged to Melvin Bay will be based on:

- The quantity of saline water to be managed and discharged
- The capacity in the line
- Projections (i.e., saline and contact water balance forecast) and planning within a given year to progressively manage the site in anticipation of freshet and open-water precipitation events, and to prepare the saline and surface contact ponds for the freeze-up condition

The lower bound of surface contact water that can be diverted away from discharge to Meliadine Lake and towards Melvin Bay will be based on the annually updated water balance and water management plans. The lower bound limit is defined as:

- One waterline is operational for a total daily discharge up to 12,000 m^3/day total, and up to 50% of that water comprised of surface contact water for a daily total of 6,000 m^3/day of surface contact water.

An upper bound of surface contact water that can be diverted to Melvin Bay is not currently defined. However, the upper bound of surface contact water, and ultimately the end-of-pipe concentration of TDS will fall within the modelled scenarios of 2,200 mg/L to 39,600 mg/L TDS (Tetra Tech 2020c, 2021).

2.2 Adaptive Water Management at Discovery

Under Normal Operating Conditions, contact water at Discovery will be conveyed via truck along the Discovery Road to the main site and managed accordingly. However, there are two contact water collection ponds (CPD1 and CPD2) at Discovery (designed for 51,000 and 61,000 m^3, respectively) to store water should conditions divert from Normal Operating Conditions; the option to store water in the Discovery Pit also exists but unlikely required.

2.3 Site-Specific Water Quality Objective

Agnico Eagle believes that an SSWQO for chloride is not required at this time based on:

- monitoring data collected for treated discharge from CP1 and in Meliadine Lake associated with the 2020 emergency amendment (as reported in Appendix B of the WQ-MOP [Agnico Eagle 2020c])
- water quality forecasts for the treated discharge from CP1 over the life of the mine based on the bounds of the proposed MAC and MGC effluent quality criteria for TDS and updated modelling completed for Meliadine Lake by Tetra Tech (2020b)
- observed performance of the in-lake diffuser during the comprehensive monitoring associated with the emergency amendment (Agnico Eagle 2020a) in 2020 (Golder 2020c)

This is supported by the strong and consistent relationship between TDS and chloride in treated discharge, and because the broad range of toxicity testing completed as part of the site monitoring between 2017 and 2020 indicated no acute toxicity associated with the discharge.

The monitoring associated with the 2020 emergency amendment as per the WQ-MOP showed that the ionic composition of the TDS in the treated discharge remained consistent over the 2020 discharge period (Golder 2020c). Concentrations of calculated TDS in the treated discharge, ranged from 1,030 mg/L to 2,675 mg/L. The proportion of chloride in the TDS remained consistent during the discharge to Meliadine Lake, contributing 49% of the TDS by mass on average, making it the largest ionic constituent of TDS in the discharge and the dominant anion. The secondary components of TDS comprised sodium, calcium, and sulphate (i.e., average of 19%, 12%, and 11%, respectively). The remaining minor contributors of the TDS comprised magnesium, potassium, bicarbonate, silica, and nitrate.

During the discharge associated with the emergency amendment in 2020, calculated TDS at the edge of the mixing zone ranged from 30 to 115 mg/L (Golder 2020c). The relative proportion of chloride in the TDS at the edge of the mixing zone was considerably lower than that in the treated discharge because of dispersion of the discharge in the mixing zone and distance from the diffuser. This variance occurred due to the receiving waters possessing a much lower concentration of chloride (and relative proportion of chloride in the TDS) relative to the treated discharge. As a result, the median chloride proportion at the edge of the mixing zone decreased to appropriately one-third (the proportion further decreased in the mid-field and reference locations, to 27% and 24%, respectively). This chloride composition in the near-field was consistent with the median for data collected between July 2015 and September 2019 from MEL-01, which was estimated at 29% (see Table A-1 in WQ-MOP Rev2a; Appendix A of Golder (2020c).

Based on the verification of the effluent quality criteria and the SSWQO for TDS as per the WQ-MOP Rev4 (Golder 2020c), Agnico Eagle considers that a chloride SSWQO would be redundant with the TDS SSWQO; furthermore, as the monitored TDS concentrations in 2020 at the edge of mixing zone were

well below both the TDS SSWQO and the generic CCME long-term guideline for chloride (120 mg/L; CCME 1999), negligible risk is expected due to chloride concentrations in the receiving environment over the life of the mine.

Although there is no imminent need for a chloride SSWQO, Agnico Eagle has agreed to a process to develop an SSWQO for chloride within the Adaptive Management Plan on the basis of monitoring data for the treated discharge and/or at the edge of the mixing zone reaching specific thresholds. This responds to specific concerns from the KivIA that potential for chloride toxicity exists associated with the MAC and MGC effluent quality criteria for TDS and a commitment by Agnico Eagle in response to KIA-WL-TC-1 in the 2020 Water Licence Amendment Technical Comment responses (Agnico Eagle 2020c). The process under the Adaptive Management Plan in which an SSWQO for chloride would be developed is described in Section 2.2.1.

2.3.1 Decision Tree

The decision tree for the consideration of the development of an SSWQO for chloride in Meliadine Lake includes thresholds associated with TDS and chloride monitoring data for the treated discharge and chloride concentrations at the edge of the mixing zone (Table 3).

The screening of chloride concentrations at edge of mixing zone will be compared initially to the generic long-term CCME guideline of 120 mg/L; this threshold for chloride is currently used as a benchmark within the AEMP for the Meliadine Mine. If this generic guideline of 120 mg/L is approached (i.e., measured concentrations at edge of mixing zone are greater than 75% of the guideline) or if the composition of chloride in the treated effluent reaches 60% (based on annual discharge average), then a chloride SSWQO would be developed. The SSWQO derivation will follow the CCME (2007) derivation procedures, which will entail screening of toxicity data for reliability and relevance, normalization of toxicity data to toxicity modifying factors in the receiving environment (e.g., water hardness), fitting of data using a species sensitivity distribution curve, and adoption of the HC5 as the SSWQO. The above approach is consistent with that applied at other Northern mine sites (e.g., Ekati mine, Gahcho Kué Mine, Giant Mine), is science-based, and is in alignment with regulatory systems for benchmark development.

Table 3 Adaptive Thresholds for Development of a Chloride SSWQO

Adaptive Management Level	Threshold	Management Activity / Response Action
Normal	• TDS of the treated discharge remains below the MAC of 3,500 mg/L as calculated TDS • Composition of chloride in the treated discharge remains equal to, or less than 50%, based on routine monitoring results • Chloride concentration at the edge of the mixing zone is below 75% of the generic long-term CCME guideline for chloride	1. Continue regular monitoring frequency of treated discharge (MEL 14) and at the edge of the mixing zone in Meliadine Lake (MEL 13-01, 13-07, and 13-10)
Caution	• Composition of chloride in the treated discharge is greater than 50%, but less than 60%, based on routine monitoring results • Chloride concentration at the edge of the mixing zone is below 75% of the generic long-term CCME guideline for chloride	1. Confirm ionic composition of TDS in treated discharge (MEL 14) 2. Identify other sources of site surface water that can be directed to CP1 to reduce chloride proportionality of the TDS 3. Increase frequency of monitoring of treated discharge 4. Maintain regular monitoring frequency at the edge of the mixing zone in Meliadine Lake (MEL 13-01, 13-07, and 13-10)
At Risk	• Composition of chloride in the treated effluent is 60%, based on annual average monitoring results for the discharge OR • Chloride concentration at the edge of the mixing zone greater than 75% of the generic long-term CCME guideline for chloride (based on annual discharge average)	1. Establish a chloride SSWQO

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APPENDIX A • FIGURES

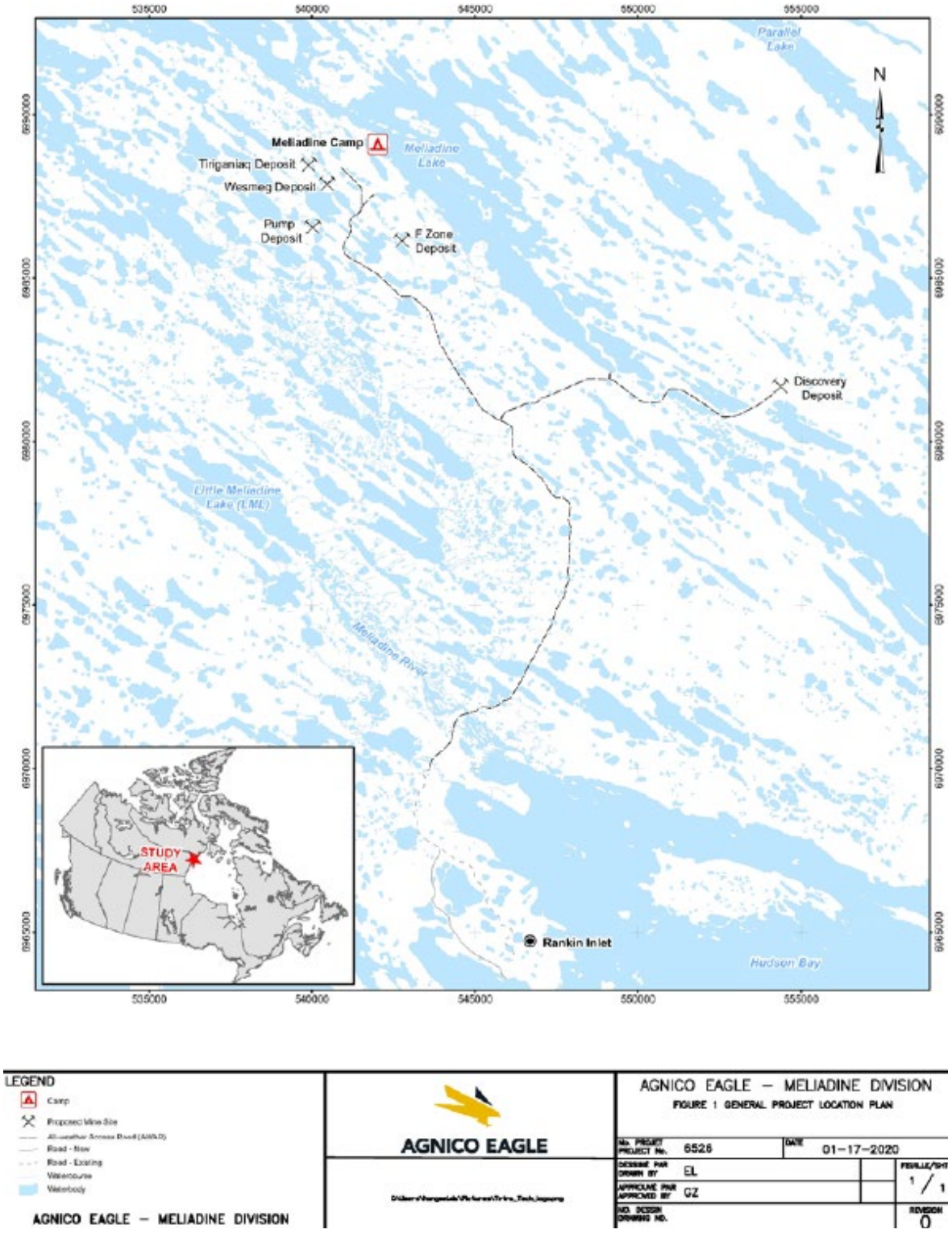

Figure 1 General Project Location

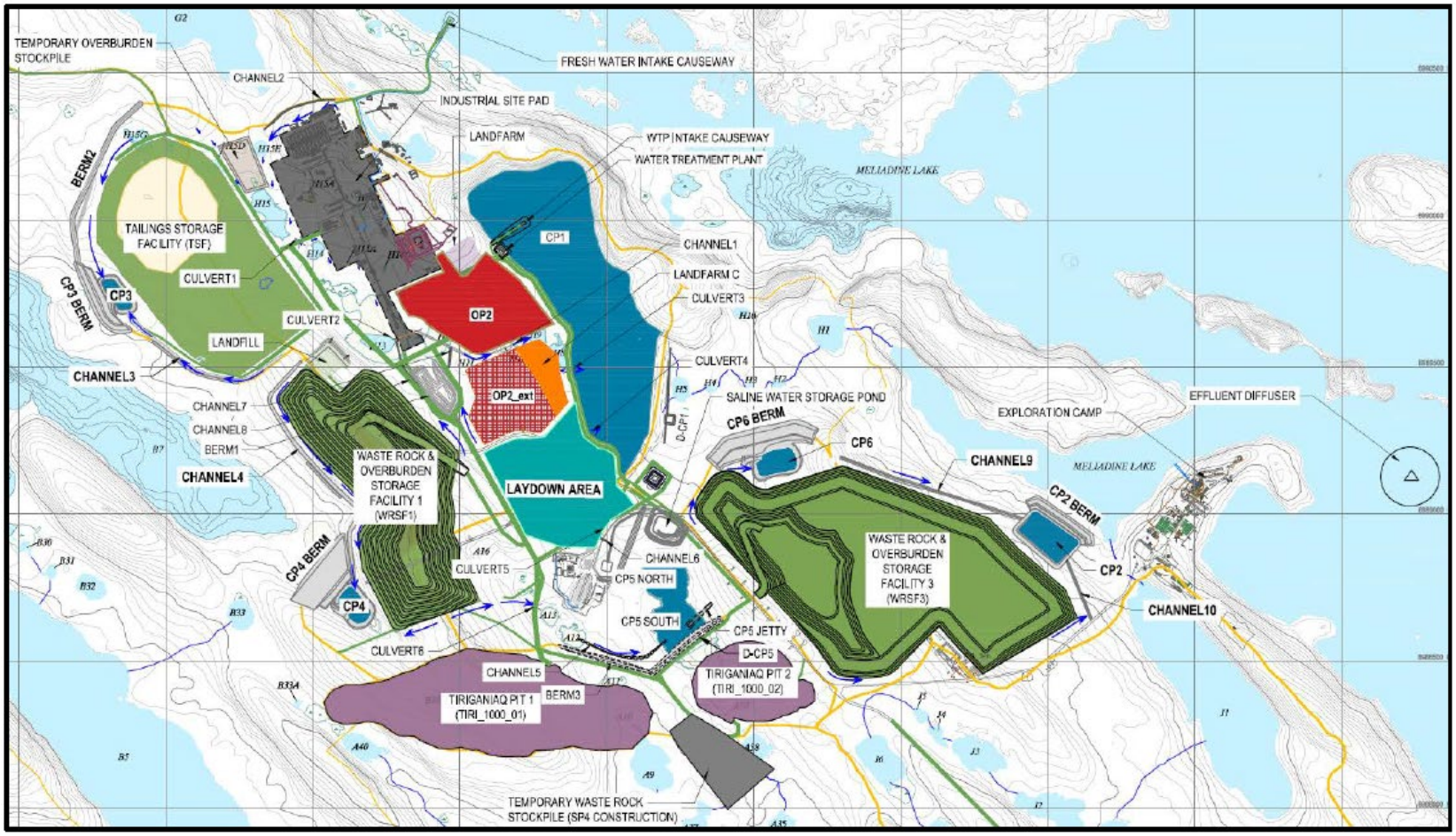

Figure 2 General Mine Site Location

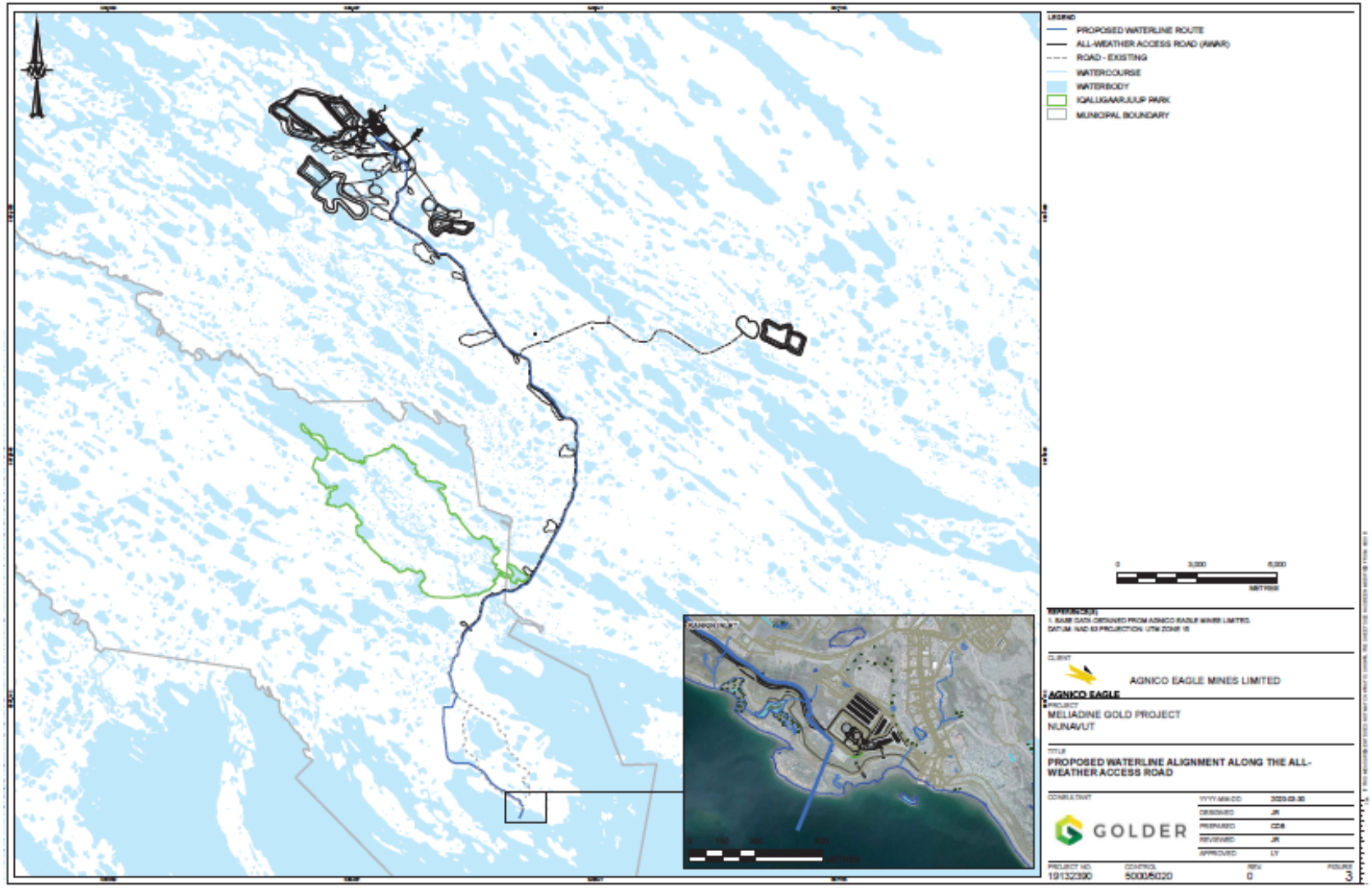

Figure 3 Waterline Alignment Along the All-Weather Access Road