LICENCE:	**NWB Water Licence 2AM-MEL1631**
DATE:	**March 1, 2021**
SUBJECT:	**Assessment of Material Provided by Agnico Eagle's in Response to NWB Commitments**

Introduction

The Nunavut Water Board hosted a technical meeting on November 30, 2020 regarding Agnico Eagle Mines Ltd. (AEM) application to amend the Meliadine Water Licence 2AM-MEL1631. A primary outcome of those technical meetings were commitments made by AEM in response to interventions made by the Kivalliq Inuit Association (KIA) and other intervenors. AEM has submitted new or updated documentation as per those commitments, which are outlined in the Nunavut Water Board's (NWB) "List of Commitments Resulting from the Technical Meeting held on November 30, 2020 for Amendment Application to the Water Licence No: 2AM-MEL1631". Those commitments pertaining to the KIA's interventions are as follows:

- Commitment 1: Submission of a Draft Amended Water Licence Framework – submitted December 18, 2020
- Commitment 3: Submission of an Adaptive Management Plan – submitted on February 5, 2021
- Commitment 5 and 6: Submission of an updated Groundwater Management Plan – submitted January 29, 2021
- Commitment 8 and 9: Submission of an updated Interim Closure and Reclamation Plan – submitted January 29, 2021
- Commitment 15: Agnico Eagle to provide confirmation suitability of the 5000 mg/L Total Dissolved Solids (TDS), maximum grab sample EQC in a technical memorandum – submitted December 8, 2020

The NWB has requested that KIA and other interested parties to respond to the new information provided through these commitments by March 1, 2021. This memorandum represents our responses to those items; our review of the new material presented by AEM has identified 12 new technical issues.

RESPONSES TO ADDITIONAL INFORMATION PROVIDED BY AEM IN RESPONSE TO COMMITMENT LIST

REVIEW OF DRAFT WATER LICENCE FRAMEWORK

KIA's comments on the Draft Water Management Framework are contained below and in comments on Agnico Eagle's proposed draft amended license. Note: certain comments are only found in KIA's

comments on Agnico Eagle's proposed draft amended license. These have been included in Attachment 1.

KIA-New-TC#1. Use of the Waterline to discharge saline wastewater should be prioritized over discharge into Meliadine Lake, in accordance with a revised Adaptive Management Plan.

Reference: *Draft Amended Licence* at Part A(1)(a), Part B(12), Part E(2), and Schedule A Definitions.

Comment: KIA submits that the Board should include conditions within the Licence requiring Agnico Eagle to prioritize discharge of saline water effluent into Melvin Bay through the Waterline (if it is approved following the NIRB process), rather than discharging it directly into Meliadine Lake.

By addressing the Waterline and the Adaptive Management Plan (AMP) in the Licence, the NWB would be making enforceable an effluent allocation strategy that minimizes project interactions with the freshwater environment.

The Waterline is currently under review by the Nunavut Impact Review Board (NIRB) as a "significant modification" to the Meliadine Project, and will be the subject of a public hearing to be scheduled. The Waterline is projected to have a minimum capacity of 6 000 $m^3$of water per day, and a maximum capacity of 20 000 m^3 of water per day in the open water season. The minimum capacity exceeds the predicted unmitigated saline water output of the Project.

AEM has submitted to NIRB and the Board an Adaptive Management Plan for Water Management (AMP) which sets out a process for allocating saline wastewater discharge between the Waterline and Meliadine Lake. The AMP is described in further detail below, along with KIA's proposed modifications

Recommendation: Amend the *Draft Amended Licence* to:

- include the AMP in the list of Plans at Part B(13);
- add "Waterline" in the Schedule A definitions;
- refine the definition of "Adaptive Management" to include Waterline priority allocation;
- Include a condition at Part E(2) of the *Draft Amended Licence* requiring Agnico Eagle to prioritize discharge of saline water through the Waterline rather than directly into Melvin Bay; and
- add to the requirements for the Annual Report referred to in Schedule B requirements for AEM to summarize how the AMP has been implemented to prevent discharges to Meliadine Lake. Specific discussions should be provided for the three periods defined in the AMP: pre-freshet, open-water, and pre-freeze.

KIA-New-TC#2. The amended water license should continue to require AEM to notify the Board of any changes in operating plans or conditions.

Reference: *Draft Amended Licence,* Part B(9)

Comment: KIA does not agree with Agnico Eagle's proposed revision to change the requirement for Agnico Eagle to notify the Board of any changes in operating plans or conditions to a requirement that they notify the Board of any changes in Project Phases associated with this Project. AEM's proposed revision changes the meaning of the section, and would only require AEM to advise the Board when it is moving to the next phase – an entirely different concept than operating plans.

Recommendation: Maintain the original language of Part B(9).

KIA-New-TC#3. Agnico Eagle should not be permitted to circumvent Board approval and public participation through their proposed "deemed approval" mechanism for updating Plans.

Reference: *Draft Amended Licence*, Part B(10).

Comment: KIA does not agree with Agnico Eagle's proposed amendment entitling them to "deemed approval" of any Plan submission that the Board does not respond to within 45 days.

Plans form a part of the *Water Licence* (*Water Licence,* Part B(14)). At the Board's discretion, a "significant" change to a Plan may be considered an "Amendment" to the Water Licence itself (*Water Licence,* Part B(12)), requiring the Board's approval. Alternatively, a change to a Plan that introduces a new physical work may be a "Modification" to the Water Licence instead of an "Amendment". A "Modification" requires 60 days prior notice to the Board (*Water Licence*, Part B(1)).

AEM's proposed addition of a "deemed approval" mechanism to the lease not only improperly restricts the Board's authority, but also limits, if not eliminates, public participation and consultation with KIA on important changes to the *Water License* and its Plans. The proposed 45 days is also an unjustified reduction to the 60-day notice period for a proposed Modification.

Recommendation: Remove Agnico Eagle's amendments to Part B(10) from the *Draft Amended Licence.*

KIA-New-TC#4. Agnico Eagle should not be entitled to "at any time" submit to the Board a request for change in the amount of security.

Reference: *Draft Amended Licence*, at Part C(9).

Comment: KIA does not agree with Agnico Eagle's proposed amendment allowing Agnico Eagle to, "at any time submit an application to the Board for a change to the amount of security." This has the potential to impose additional unnecessary review burden on KIA and the Board.

KIA acknowledges that allowing Agnico Eagle to update their security on a regular basis reflects and encourages progressive reclamation. A more reasonable timeline would be to allow Agnico Eagle to submit applications to the Board for a change to the amount of security once annually, in conjunction with its Annual Report submitted to the Board.

Recommendation: Amend Agnico Eagle's added provision at *Draft Amended Licence,* Part C(9) to remove the words "at any time" and replace them with "once annually at the same time as filing its Annual Report".

KIA-New-TC#5. Agnico Eagle should not be allowed to escape their obligation to proactively minimize surface drainage impacts.

Reference: *Draft Amended Licence,* at Part D(20) and D(21).

Comment: In their Draft Amended Licence, Agnico Eagle has proposed removing their obligation to "conduct all activities in a manner so as to minimize impacts on Surface Drainage" leaving in only their obligation to "undertake any corrective action required."

KIA submits that Agnico Eagle must be required to minimize impacts on Surface Drainage and take immediate corrective measures.

Recommendation: Maintain the standard language: "The Licensee shall conduct all activities in a manner so as to minimize impacts on Surface Drainage and immediately undertake any corrective measures required in the event of any impacts on Surface Drainage."

KIA-New-TC#6. Agnico Eagle's water use for dust suppression should not be exempt from the Water Licence.

Reference: *Draft Amended Licence,* at Part E(3).

Comment: KIA disagrees with Agnico Eagle's proposed removal of the requirement that waters used for dust suppression should be exempt from the maximum allocation of water under the Water Licence.

Granting Agnico Eagle the freedom to use water without limitation would undermine the central purpose of the Water Licence to regulate "water use and deposit of waste."

Recommendation: Re-insert the final sentence of Part E(3), deleted by Agnico Eagle.

REVIEW OF ADAPTIVE MANAGEMENT PLAN

AEM has submitted an Adaptive Management Plan (AMP) in response to KIA-IR#2 "Diversion of CP1 water to waterline" which specifically requested that AEM divert all surface contact water to the waterline for discharge to the marine environment rather than continuing discharges to Meliadine Lake. The AMP was designed to address that request and includes *"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 [was] designed such that*

discharges to Meliadine Lake are minimized."[1]. The AMP also presents the conditions under which a site-specific water quality objective (SSWQO) for chloride will be developed in response to KIA-TC#1 "Site Specific Water Quality Objectives for Total Dissolved Solids Constituents".

The AMP as submitted by AEM has been developed with significant input from KIA, Environment and Climate Change Canada and Crown Indigenous Relations and Northern Affairs Canada gathered over two teleconferences held on January 21 and February 2, 2021. The AMP directly addresses many of KIA's concerns and increases confidence that surface contact water will not be discharged to Meliadine Lake under normal conditions once the waterline has been permitted, built, and becomes operational. However, KIA offers the following new technical comments:

KIA-New-TC#7. Clarification of Tiriganiaq-2 Saline Groundwater Management

Reference: Adaptive management Plan Section 2.1 Discharge through the Waterline

Comment: AEM has included the following text to define the normal condition level within the AMP: *"Saline water capacity at site is less than 70% (open-water), 0% pre-freeze up, and <15% pre-freshet."* AEM references the Groundwater Management Plan to define the thresholds used to evaluate the available saline water storage capacity. However, it is unclear whether the Tiriganiaq-2 open pit is considered in the defined saline water storage capacity.

This consideration is of particular importance as Tiriganiaq-2 will be used to store saline groundwater starting in June or July 2021 and has sufficient capacity to store the predicted saline groundwater inflows over much of the project life. If the pit is not included in the evaluation of normal available groundwater storage capacity, KIA is concerned the volume of saline water volume stored on site may be considered outside normal operating conditions for at least the first year the waterline is operational given excess saline groundwater will be within the pit from previous years. If Tiriganiaq-2 is included in the storage, the volume of saline groundwater stored on site may be considered above the "at risk" management threshold during both freshet and prior to freeze up for at least the first year the waterline is operational.

Recommendation: AEM should clarify how excess saline groundwater stored in Tiriganiaq-2 will be handled under the AMP until the waterlines are available and Tiriganiaq-2 is dewatered.

[1] Nunavut Water Board. 2020. List of Commitments Resulting from the Technical Meeting held on November 30, 2020 for Amendment Application to the Water Licence No: 2AM-MEL1631.

KIA-New-TC#8. Saline Groundwater Storage Thresholds.

Reference: Adaptive management Plan Table 1 Operation Conditions for Saline Water, Waterline, and Contact Water

Comment: AEM has included the following text in the definition of normal conditions: *"Saline water capacity at site is less than 70% (open-water), 0% pre-freeze up, and <15% pre-freshet."* The criteria used to define "pre-freeze up" is more stringent than criteria used for other volumetric evaluations under the AMP. The full criteria used to evaluate available saline groundwater storage capacity on site is as follows:

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)

We reference for comparison the criteria used to evaluate normal conditions for surface contact water storage capacity: *"Surface contact water capacity at site is less than 81% (open-water), less than 14% pre-freeze up, and less than 22% pre-freshet".* Surface contact water storage capacity evaluations are afforded ranges of volumes. While we understand dewatering the saline water storage ponds is desirable, complete dewatering to 0% storage capacity may introduce additional total suspended solids into discharges that exceed Metal and Diamond Mine Effluent Regulations (MDMER) discharge criteria and may not be necessary from an engineering perspective.

Recommendation: AEM should provide additional flexibility surrounding the evaluation saline groundwater storage thresholds. For example, normal conditions pre-freeze up could be defined as <5%, caution could be defined as ≥5%, and at risk could be defined as ≥10%.

KIA-New-TC#9. Freshet Management.

Reference: Adaptive management Plan Table 2 Adaptive Management Response to Maintain Normal Operating Conditions

Comment: AEM notes under the normal adaptive management level, they will *"Maintain saline and contact water discharge through waterline as required, unless waterline is not available."* At the caution adaptive management level, AEM specifies the following response option: *"If outside normal waterline operational window, evaluate starting discharge of water to Melvin Bay earlier and below the ice."* KIA wishes to highlight that while discharges to both Meliadine Lake and Melvin Bay are planned during the freshwater and marine ice-free seasons respectively, these discharge windows do not align with the discharge needs pertaining to CP1 required to both avoid compromising the CP1 dike as well as

discharging to Meliadine Lake. Discharges from CP1 will be necessary prior to the open water season in the marine environment.

Recommendation: KIA requests AEM clarify how surface contact water will be managed during freshet to avoid discharges to Meliadine Lake. We specifically recommend AEM link annual operation of the waterlines to the discharge requirements of CP1 in the AMP regardless of whether the ice has melted on Melvin Bay at freshet. AEM should plan to commence discharges from CP1 to Melvin Bay prior to the marine open water season to ensure discharges to Meliadine Lake are avoided.

KIA-New-TC#10. Limits on Freshwater Discharge to Melvin Bay.

Reference: Adaptive management Plan Section 2.1.2 Volume

Comment: AEM has specifies that *"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 m3/day total, and up to 50% of that water comprised of surface contact water for a daily total of 6,000 m3/day of surface contact water."*

It is unclear why the lower bound scenario limits the volume of surface contact water that may be discharged to the marine environment to 50%. Limiting surface contact water to 50% flow in the waterlines increases the likelihood that discharges to Meliadine Lake will occur given there is relatively more surface contact water that will require management and discharge as compared with saline water in even a normal year as per the water balance. KIA highlights that AEM will have ample saline water storage capacity using Tiriganiaq-2 starting in June/July 2021 providing significant operational flexibility.

Recommendation: KIA requests that AEM prioritize the discharge of surface contact water to Melvin Bay even under the lower bound scenario when only *"one waterline is operational"* given the saline groundwater storage capacity provided through Tiriganiaq-2 allows for significant operational flexibility in the management of site water. This prioritization of surface contact water discharges to Melvin Bay may become particularly necessary during freshet to avoid discharges to Meliadine Lake.

REVIEW OF GROUNDWATER MANAGEMENT PLAN

AEM has updated the Groundwater Management Plan (Version 6 dated January 2021) to address commitments made in response to KIA-IR-9 which expressed concern with the viability of the short- and medium-term approaches to manage saline groundwater, particularly prior to construction of the proposed waterlines to manage saline groundwater in the long term. AEM specifically committed to

update the Groundwater Management Plan to address: *"The viability of the short, medium and long-term strategy for saline groundwater management [and propose] a threshold (e.g. 80%) for when the available saline storage is approaching capacity and additional mitigation measures may be undertaken to ensure that, if the saline effluent pipeline is not available, Agnico Eagle has sufficient time to proceed through any applicable regulatory process, if required.".* The updated plan was also to *"provide an explanation of how the groundwater inflows have been reduced, information on the effectiveness of grouting and an evaluation of the available saline groundwater storage including a discussion regarding estimated time to reaching capacity."*

The updated Groundwater Management Plan addresses KIA's concerns regarding how excess saline groundwater will be managed in the short-term and medium-term prior the waterlines becoming available to manage saline groundwater (the "long-term" strategy). KIA is satisfied that that the updated Plan indicates AEM will use the Tiriganiaq-2 open pit starting in June or July 2021, depending on actual groundwater inflows, to store excess saline groundwater water prior to the waterlines becoming available. The holding capacity in Tiriganiaq-2 outlined in the updated Plan provides confidence that AEM will be able to manage saline groundwater inflows until at least 2027 so long as the medium-term strategy of transporting 1,600 m^3/day by truck for discharge during the open water season (at least 4 months each year) into Melvin Bay is maintained.

Our review of the updated Plan has identified one new concern:

KIA-New-TC#11. Rationale for Change to Groundwater Reporting.

Reference: Groundwater Management Plan 4.1.2 Water Quality

Comment: The updated Plan indicates that *"Underground contact water monitoring is carried out for operational and water management purposes by Agnico Eagle. This monitoring data will not be reported to the Regulators in the Annual Water License Report but can be provided upon request by the Regulators."* This represents a shift from the previous iteration of the Plan where underground contact water monitoring data was to be included in the annual report to the NWB. This data will become more important going forward as increased volumes of saline groundwater will be stored on site starting in 2021 going forward until the waterlines are available.

Recommendation: AEM should provide rationale as to why underground contact water monitoring data will no longer be reported to the NWB within the Annual Report unless specifically requested by the regulators.

REVIEW OF UPDATED INTERIM CLOSURE AND RECLAMATION PLAN

AEM has submitted an update to the Interim Closure and Reclamation Plan (ICRP) following discussions during the technical meetings. The plan was specifically updated in response to Commitment 8 and 9 to

"include the results of the discussion between Agnico Eagle, KIA and CIRNAC with respect to the Reclamation Security update" and *"include additional details on the closure and post-closure soil and water quality monitoring programs, as information becomes available from operational data and from future versions of applicable management plans."* respectively. Updates to the plan appear primarily focused on including details pertaining to construction and decommissioning of the waterlines currently under review by the Nunavut Impact Review Board. The plan has not been updated to address Commitment 9 at this time; KIA accepts that Commitment 9 can be addressed in a future iteration of the plan as agreed to during the technical meetings.

KIA has identified one new concern associated with use of the Tiriganiaq-2 open pit to store saline groundwater that has not been addressed in the current iteration of the ICRP.

KIA-New-TC#12. Reclamation Costs for Tiriganiaq-2 Saline Storage Pond.

Reference: ICRP Section 5.2.4 Open Pits

Comment: The updated Groundwater Management Plan indicates that the Tiriganiaq-2 open pit will be used to store saline groundwater starting in June/July 2021 until such time as the waterlines are available and can be used to dewater the pit. However, no specific consideration is provided within the updated ICRP to include reclamation activities designed to specifically prevent saline contamination of the freshwater intended to flood the Tiriganiaq-2 open pit at closure.

Recommendation: AEM should outline activities that will be employed at closure to ensure the sediments within the Tiriganiaq-2 open pit do not serve as a source of chloride or other residuals resulting from its use as a saline water storage pond. Specific activities may include testing and excavating high chloride sediments prior to flooding at closure. Costs associated with these activities should be included as part of the "Chemicals and Contaminated Soil Management" in the Reclaim cost estimate. Any additional costs for this activity can be reviewed if the proposed saline waterlines are approved and the Tiriganiaq-2 open pit is used for saline water storage. If approved, the KIA suggests a review of the Groundwater Management Plan and Security twelve months after the proposed saline water lines have been in operation.

Attachment 1: KIA Comments on AEM's Proposed Draft Amended License.

Agnico Eagle Draft in prep for submission as of December 17, 2020

NUNAVUT WATER BOARD

AMENDED WATER LICENCE NO: 2AM-MEL1631

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Licence No. 2AM-MEL1631

Pursuant to the Nunavut Waters and Nunavut Surface Rights Tribunal Act and the Agreement Between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in Right of Canada, the Nunavut Water Board, hereinafter referred to as the Board, hereby grants to

AGNICO-EAGLE MINES LIMITED
(Licensee)

145, KING STREET EAST, SUITE 400, TORONTO, ONTARIO M5C 2Y7
(Mailing Address)

hereinafter called the Licensee, the right to alter, divert or otherwise use Water or deposit Waste for a period subject to restrictions and conditions contained within this Licence:

Licence Number/Type:	**2AM-MEL1631 / Type "A"**
Water Management Area:	**WILSON WATERSHED (13)**
Location:	**MELIADINE GOLD PROJECT KIVALLIQ REGION, NUNAVUT**
Purpose:	**WATER USE AND DEPOSIT OF WASTE**
Description:	**MINING UNDERTAKING**
Quantity of Water not to be Exceeded:	**62,000 CUBIC METRES ANNUALLY FOR CONSTRUCTION, 741,706 ~~318,000~~ CUBIC METRES ANNUALLY FOR OPERATION, AND 4,000,000 CUBIC METRES**
Date Licence Issuance:	**~~APRIL 1, 2016~~[Projected May 2021]**
Expiry of Licence:	**MARCH 31, 2031**

This Licence issued (**~~Motion Number 2016-15-P15-06~~TBD**) and recorded at Gjoa Haven, Nunavut includes and is subject to the annexed conditions.

Lootie Toomasie
Nunavut Water Board
Hearing Chair

APPROVED BY:

Minister of ~~Indigenous and~~ Northern Affairs ~~Canada~~

DATE LICENCE APPROVED:

PART A: SCOPE, DEFINITIONS AND ENFORCEMENT

1. SCOPE

a. This Licence authorizes Agnico-Eagle Mines Limited ("AEM" or "Licensee") to use Waters and deposit of Waste in support of a Mining Undertaking classified as per Schedule 1 of the Regulations, at the Meliadine Gold Project (Project) as outlined in the Type "A" Water Licence Application (Application) submitted to the Nunavut Water Board (NWB or Board) on May 15, 2015 and the Type "A" Water Licence Amendment Application submitted to the NWB on August 2020, as reviewed throughout the regulatory process.

The Licensee may conduct mining, milling and associated activities at the ~~Meliadine Gold~~ Project in the Kivalliq Region of Nunavut, located at the following general geographic coordinates:

Project Extents	Latitude	Longitude
Mine Site	63° 2' 53.091" N	92° 16' 16.651" W
	63° 2' 50.722" N	92° 9' 10.809" W
	63° 1' 1.463" N	92° 9' 13.978" W
	63° 1' 3.829" N	92° 16' 19.377" W
All-weather Access Road	63° 1' 19.309" N	92° 11' 26.684" W
	63° 1' 16.230" N	92° 3' 10.432" W
	62° 47' 58.542" N	92° 3' 36.080" W
	62° 48' 1.592" N	92° 11' 48.601" W
Itivia, Rankin Inlet Area	62° 48' 9.519" N	92° 6' 4.112" W
	62° 48' 9.283" N	92° 5' 27.421" W
	62° 47' 52.933" N	92° 5' 27.925" W
	62° 47' 53.169" N	92° 6' 4.610" W
Camp	63° 2' 24.180" N	92° 13' 44.288" W

and including, in general, as follows:

- Use of Water from Meliadine Lake for mining and milling, associated activities and domestic purposes;
- Withdrawal and use of Water from Meliadine Lake for re-flooding of Tiriganiaq 1 and Tiriganiaq 2 open pits following pit development;
- Dewatering of Lakes A54, H17, H19 and H20, and draining of ponds;
- Quarrying of materials from specified locations;
- Development and Operation of the site facilities;
- Construction of access and site roads, Water crossings, industrial pad, and laydown areas;

- Construction and Operation of a potable water treatment plant and associated causeway and intake;
- Construction and Operation of a Sewage Treatment Plant (STP);
- Construction and Operation of a Landfill, Landfarm, and Incinerator;
- Construction and Operation of a water collection ponds, retention dikes, retention berms, jetties, dams, pump systems, pipeline, and channels;
- Construction and Operation of a contact Water Treatment Plant (WTP);
- Development and Operation of an underground Total Suspended Solids (TSS) removal plant;
- Construction and Operation of fuel tanks, dispensing storage facilities and associated secondary containment areas for the bulk storage of fuel at the Mine Site and at the Itivia Site Fuel Storage and Containment Facilities;
- Construction and Operation of the Rankin Inlet By-pass Road;
- Operation of the All-weather Access Road~~, Rankin Inlet By-pass Road~~ and associated infrastructure;
- Extraction of overburden, waste rock and ore from the Tiriganiaq gold deposit via two open pits and one underground mine;
- Construction and Operation of a temporary overburden stockpile;
- Construction and Operation of ore stockpiles;
- Construction and Operation of Waste Rock Storage Facilities;
- Construction and Operation of a Tailings Storage Facility (TSF);
- Processing of ore using a conventional gold-milling circuit;
- Development and Operation of an Emulsion Plant;
- Construction of berms required for the Operation of the Tailings Storage Facility (TSF);
- Deposition of dry stack tailings into the Tailings Storage Facility (TSF);
- Disposal of cyanide leach residue within the TSF;
- Disposal of Waste Rock and Overburden within three Waste Rock Storage Facilities (WRSF);
- Use of Waste Rock for Construction as approved by the Board in accordance with conditions of Part F;
- Management and disposal of wastes associated with the Sewage Treatment Plant, water collection ponds, Landfill, Landfarm, Incinerator and other wastes as described in the application;

- Handling and storage of petroleum products and hazardous materials including explosives, cyanide and other reagents;
- Diversion of site runoff Water to Water management facilities;
- Controlled and regulated discharge of Effluent from the Water Treatment Plant, Control Pond No. 1 (CP1) to Meliadine Lake through an effluent diffuser; and
- Progressive Reclamation and Abandonment planning of on-site facilities and infrastructure.

Commented [KJ1]: KIA Comment: add "…or, if AEM's application to amend 2AM-MEL1631 to allow a proposed waterline is approved, to Melvin Bay by waterline;

b. This Licence is issued subject to conditions contained herein with respect to the use of Waters and the deposit of Waste of any type in any Waters or in any place under any conditions where such Waste or any other Waste that results from the deposits of such Waste may enter any Waters. Whenever new r~~R~~egulations are made under the Act or existing Regulations or Act are amended by the Governor in Council under the Act, or other statutes imposing more stringent conditions relating to the quantity, type or manner under which any such Waste may be so deposited are brought into force, this Licence shall be deemed to be subject to such requirements.

c. Compliance with the terms and conditions of this Licence does not absolve the Licensee from responsibility for compliance with all applicable legislation, guidelines and directives.

2. DEFINITIONS

a. The Licensee shall refer to Schedule A for definitions of terms used in this Licence.

3. ENFORCEMENT

a. Failure to comply with this Licence may be a violation of the Act, subjecting the Licensee to the enforcement measures and the penalties provided for in the Act.

b. All inspection and enforcement services regarding this Licence will be provided by Inspectors appointed under the Act.

c. For the purpose of enforcing this Licence and with respect to the use of Waters and deposit of Waste by the Licensee, Inspectors appointed under the Act, hold all powers, privileges and protections that are conferred upon them by the Act or by other applicable laws.

PART B: GENERAL CONDITIONS

1. The amount of Water use fees shall be determined and payment of those fees shall be made by Licensee in accordance with section 12 of the *Regulations.*

2. The Licensee shall file an Annual Report with the Board no later than March 31st in the

year following the calendar year being reported. The Annual Report shall be developed in accordance with Schedule B.

3. The Licensee shall retain and have a copy of this Licence available at the site of operations at all times.

4. Any communication with respect to this Licence shall be made in writing to the attention of:

Manager of Licensing, Nunavut Water Board
P. O. Box 119
Gjoa Haven, NU X0B 1J0
Telephone: (867) 360-6338
Fax: (867) 360-6369
Email: licensing@nwb-oen.ca

5. Any notice made to an Inspector shall be made in writing to the attention of:

~~Water Resources Officer~~Manager of Field Operations
Nunavut District, Nunavut Region
P.O. Box 100
Iqaluit, NU X0A 0H0
Telephone: (867) 975-4295
Fax: (867) 979-6445

6. The Licensee shall submit ~~one (1) paper copy and~~ one (1) electronic copy of all reports, studies, and plans to the Board unless otherwise requested by the Board. Reports or studies submitted to the Board by the Licensee shall include an executive summary in English, Inuktitut, and French.

7. This Licence is assignable as provided in Section 44 of the *Act*.

8. The Licensee shall ensure that any document(s) or correspondence submitted by the Licensee to the Board is received and acknowledged by the Manager of Licensing or delegate.

9. The Licensee shall notify the Board of any changes in ~~operating plans or conditions~~ Project phases associated with this Project at least thirty (30) days prior to any such change.

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. Plans submitted may be undertaken without subsequent written Board approval and direction after a 45 day period has elapsed following submissions by the Proponent with no action on the part of the Board. 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.

11. ~~I~~Unless otherwise directed by the Board in writing, in the event that a Plan is not found acceptable to the Board, the Licensee shall provide a revised version to the Board for review within thirty (30) days of notification by the Board.

Commented [KJ2]: KIA Comment: KIA disagrees with AEM's proposed change. AEM should be required to notify the Board of any changes *in operating plans or conditions.* AEM's proposed revision changes the meaning of the section, and would only require AEM to advise the Board when it is moving to the next phase – an entirely different concept than operating plans.

Commented [CP3]: Note to NWB: Agnico Eagle is of the view that Plans and Plan amendments should be subject to a deemed approval after a reasonable period. 45 days is proposed

Commented [KJ4R3]: KIA Comment: KIA does not agree with AEM's proposed "deemed approval" amendment to the license. AEM's "deemed approval" mechanism erodes the jurisdiction of the Board, and limits public participation. KIA does not support Agnico Eagle's proposed revisions and submits that the license must include the standard language.

12. The Licensee shall, for all Plans submitted under this Licence, implement the Plan as approved by the Board in writing. The Board has approved (or accepted) the following Plans for implementation under the relevant sections in the Licence. Any changes to the plans deemed significant shall be ~~considered as an amendment to the plan(s)~~ reviewed by the Board to determine the process for the Board's review and approval of the amendment to the plan(s) ~~or as a modification and must be submitted to the Board for approval in writing~~. Reflecting the scale and scope of the future changes of an approved plan, the Board may subsequently process the changes as solely an amendment to the plan, as a Modification under Part G of the Licence, or as an Amendment to the Licence. ~~The Board has approved the following Plans for implementation under the relevant sections in the Licence~~:

a. Ammonia Management Plan, Version 2, April 2020;
~~a.~~b. Aquatic Effects Monitoring Program (AEMP) ~~Design Plan~~, ~~April 2015~~June 2016;
c. Borrow Pits and Quarries Management Plan, Version ~~4~~6, ~~April 2015~~March 2018;
d. Bulk Storage Facility-: Environmental Performance Monitoring Plan, Version 1, August 2019
~~b.~~c. Dust Management Plan, Version 6, June 2020
~~c.~~f. Environmental Management and Protection Plan (EMPP), Version ~~4~~9, March 2019~~April 2015~~;
g. Explosives Management Plan, Version ~~4~~6, March 2020; ~~April 2015;~~
h. Freshet Action Plan, Version 6, March 2020;
~~d.~~i. Groundwater Management Plan, Version 5, April 2020;
~~e.~~j. Hazardous Materials Management Plan, Version ~~4~~5, ~~April 2015~~March 2018;
k. Incineration Management Plan, Version ~~4~~6, ~~April 2015~~February 2019;
~~f.~~l. Interim Closure and Reclamation Plan, December 2019;
~~g.~~m. Landfarm Management Plan, Version ~~1~~3, ~~April 2015~~March 2019;
~~h.~~n. Landfill and Waste Management Plan, Version ~~4~~7, ~~April 2015~~March 2019;
~~i.~~o. Mine Plan~~, Version 1, April 2015~~ (updated on a yearly basis);
~~j.~~p. Mine Waste Management Plan, Version ~~1, April 2015~~6, April 2020;
~~k.~~q. Ore Storage Management Plan, ~~April 2015~~Version 2, March 2020;
~~l. Preliminary Mine Closure and Reclamation Plan, Version 1, April 2015;~~
~~m.~~r. Quality Assurance and Quality Control, Version ~~1, April 2015 and updated Version 2, December 2015~~3, March 2019;
~~n.~~s. Risk Management and Emergency Response Plan, Version 4, April 2015;
t. Roads Management Plan, Version ~~4, April 2015~~8, December 2019;
~~o.~~u. Sediment and Erosion Management Plan, Version 2, March 2020;
~~p.~~v. Spill Contingency Plan, Version 10, December 2019;~~4, April 2015; and~~
w. Water Management Plan; Version ~~1, April~~9, March 2020; and
~~q.~~x. Water Quality and Flow Monitoring Plan, Version 2, March 2020.

13. The Licensee shall update for submission to the Board for review, within sixty (60) days of issuance of this Licence, the following management plans. The updates are to take into account commitments made with respect to submissions received during the technical review of the Application, as well as final submissions and issues raised during the Public Hearing process, where applicable.

Commented [KJ5]: KIA Comment: KIA submits that AEM's proposed addition of the wording "or accepted" is unclear and vague, and should be rejected by the Board. KIA submits that Plans should only be implemented if they are *approved* by the Board.

Commented [KJ6]: KIA Comment: AEM's proposed revisions impose an additional unnecessary review burden on the Board, and attempts to constrain the authority of the Board. KIA does not support Agnico Eagle's proposed revisions and submits that the license must include the standard language.

Commented [KJ7]: KIA Comment: Add the Adaptive Management Plan to this list.

Commented [CP8]: Note to NWB: At this time, Agnico Eagle anticipates that no plan updates will be required in the 60 day period following the issuance of the licence. At this time this clause should remain as a placeholder in the event an update is committed to in the remainder of the NWB process.

~~a. Aquatic Effects Monitoring Program (AEMP) Design Plan;~~
~~b. Environmental Management and Monitoring Plan;~~
~~c. Mine Waste Management Plan; and~~
~~d. Water Management Plan.~~

14. Every Plan to be carried out pursuant to the terms and conditions of this Licence shall become a part of this Licence, and any additional terms and conditions imposed upon approval of a Plan by the Board become part of this Licence. All terms and conditions of the Licence should be contemplated in the development of a Plan where appropriate.

15. The Licensee shall review the Plans or Manuals referred to in this Licence as required by changes in operation and/or technology and modify the Plans or Manuals accordingly. Revisions to the Plans or Manuals are to be submitted in the form of an Addendum to be included with the Annual Report required by Part B, Item 2, complete with a revisions list detailing where significant content changes are made, and should incorporate design changes and adaptive engineering required and implemented during Construction and on the basis of actual site

conditions and monitoring results over the life of the Project, ~~and are to be submitted in the form of an Addendum to be included with the Annual Report required by Part B, Item 2,~~ complete with a revisions list detailing where significant content changes are made.

16. The Licensee shall post signs in the appropriate areas to inform the public of the location of the Water Supply Facilities and the Waste Disposal Facilities. All signs must be in English and~~,~~ Inuktitut ~~and French~~ and shall be located and maintained to the satisfaction of an Inspector.

17. The expiry or cancellation of this Licence does not relieve the Licensee from any obligation imposed by the Licence, or any other regulatory requirement.

18. The Schedules attached to this Licence provide details regarding the requirements associated with specific items in the main body of the Licence and are included in the Schedule to provide greater clarity and as an aid to interpretation for the Licensee. If the Board subsequently determines that an item in any of the Schedules requires revision in order to better reflect the intent and objectives of the Licence, the Board may at its discretion, and upon consulting and providing written notice to the Licensee and interested parties, revise the Schedule accordingly. Unless the Board directs otherwise, such revision may not necessarily be considered as an "Amendment" to the Licence.

19. The Licensee is encouraged to adopt an Adaptive Management approach to the management of uncertainty regarding potential for effects associated with the Undertaking, including identifying mitigation, monitoring or management actions to be taken when specified thresholds and triggers identified in an Adaptive Management Plan are exceeded.

20. Prior to the Licensee undertaking the mitigation, monitoring or management actions specified in an Adaptive Management Plan, the Licensee shall ensure that, reflecting the scale and scope of the actions proposed, all applicable regulatory requirements have been met, including, without limitation, applicable land use planning and impact assessment requirements under the *Nunavut Agreement* and the *Nunavut Planning and Project Assessment Act*, and completion of any Modification or Amendment processes required under the Act, the Regulations and/or this Licence.

21. Unless otherwise stated, references in the Licence to any specific legislation, policy, guideline or other regulatory requirement are deemed to refer to the regulatory requirement as may be amended or as may be expressly replaced by successor legislation, policy, guidelines or other regulatory requirements after the Licence is approved by the Minister.

Commented [KJ9]: KIA Comment: Adaptive Management is being used interchangeably as an activity or as a Plan. Must be consistently defined and used

Commented [KJ10]: KIA Comment: considering the principles of adaptive management should be mandatory, not encouraged. It appears this is a revised Part D, provision 32. KIA submits that the language be revised to replace "encouraged" with "shall adopt"

Commented [KJ11]: KIA edit: replace "an" with "the"

PART C: CONDITIONS APPLYING TO SECURITY

1. The Licensee shall, within thirty (30) days following the approval of this Licence by the Minister, furnish and maintain security with the Minister in the amount of **$~~24,777,500~~.** As set out in the *Meliadine Security Management Agreement*, ~~February 8, 2016 Version~~, the

amount secured under this Part constitutes 50% of the total global security amount of $~~49,555,000~~ that is required to reclaim the Undertaking and reflects that the other 50% of the global security amount will be held outside the Licence by the Kivalliq Inuit ~~Organization~~Association, in accordance with the terms and conditions of the *Meliadine Security Management Agreement*.

Commented [CP12]: Note to NWB: Global security amount is to be updated based on outcome of agreed security between KivIA, CIRNAC and Agnico Eagle

2. The security held under Part C, Item 1 shall be in the form, of the nature, and subject to such terms and conditions, as prescribed by the Act and Regulations.

3. The Licensee shall, within ten (10) days after furnishing security with the Minister, provide evidence to NWB and Kivalliq Inuit Association, that the security has been received by the Minister, indicating the amount, form, nature and conditions of the security.

4. The Licensee shall, within ten (10) days after furnishing security with the Kivalliq Inuit Association, provide evidence to NWB and to the Minister, that it has been received by the Kivalliq Inuit Association, indicating the amount, form, nature and conditions of the security.

5. The Licensee shall provide the Board with at least ninety (90) days written notice prior to any ~~parties'~~ party's termination of the Meliadine Security Management Agreement, or any material change to the Meliadine Security Management Agreement that may affect the amount of security held under Part C, Item 1.

6. The Licensee shall provide the Board with at least least ninety (90) days written notice prior to any material changes to the Undertaking or the risk of environmental damage associated with the Undertaking that could result in a material change to the reclamation liability associated with the Undertaking (including, but not limited to, updates to the reclamation cost estimate arising from unexpected changes or modifications of the works and activities associated with the Undertaking), a release, in whole or in part, of reclamation security held under this Part by the Minister pursuant to Part C, Item 11 and Section 76(5) of the Act.

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 ~~INAC~~ 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).

8. Upon the Board receiving notice under Part C, Items 5 or 6, or upon ~~receiving~~receiving an updated reclamation cost estimate as required under Part C, Item 7, the Board, may on its own initiative, or upon application by the Licensee, the Minister and/or Kivalliq Inuit Association, conduct a periodic review of the outstanding reclamation liability associated with the Undertaking and may, as the Board considers appropriate, amend the amount of security held under Part C, Item 1. Any submission requesting an amendment to the security provisions of the Licence shall include supporting evidence to justify the amendment and will be processed by the Board as an amendment to the terms and conditions of the Licence.

~~8.~~9. In addition to the process for amending security under Part C, Item 8, the Licensee may, at any time, submit an application to the Board for a change to the amount of security outlined in Part C, Item 1. The submission shall include supporting evidence to justify the amendment. The Licensee's request to amend security will be processed by the Board as an amendment to the terms and conditions of the Licence. For greater clarity, such amendments may not require a Public Hearing.

Commented [KJ13]: KIA Comment: Agnico Eagle should not be entitled to "at any time" submit to the Board a request for change in the amount of security, which may impose an additional unnecessary review burden on KIA. KIA submits that the words "at any time" should be removed and replaced with "once annually at the same time as filing its Annual Report".

~~9.~~10. If the Board determines it to be necessary, or upon the request ~~of~~ by Licensee, the Minister and/or the Kivalliq Inuit Association, the Board may issue further directions under this Part with respect to the process for the Board's conduct of periodic reviews of security and associated amendments to the amount of security to be furnished and maintained under the Licence.

~~10.~~11. The Licensee shall maintain the security deposit referred to in Part C, Item 1 until such time as the Minister is satisfied that the Licensee has complied with all provisions of the approved Abandonment and Restoration Plan. This clause shall survive the expiry of the Licence or renewals thereof and until full and final reclamation has been completed to the satisfaction of the Minister.

PART D: CONDITIONS APPLYING TO CONSTRUCTION

1. The Licensee shall submit to the Board for approval, at least thirty (30) days prior to Construction, final design and Construction drawings accompanied, with a detailed report in Part D, Item 2 and stamped and signed by an Engineer, for the following:

Commented [KJ14]: KIA Comment: add "by an appropriately qualified Engineer"

a. Engineered Water works, including: Water Intake and causeway water control structures (dikes, berms, jetties, channels) and Water crossings (culverts, bridges);
b. Engineered Waste disposal facilities including: Contact Water Treatment Plant, Sewage Treatment Plant, Discharge Diffuser, Waste Rock Storage Facilities, Overburden stockpiles, Tailings Storage Facility (including thermal installation and monitoring),
Landfill, Landfarm, and Incinerator; and
c. Engineered Fuel Storage Containment Facilities (Meliadine Site and Itivia Site).

2. The detailed report(s) referred to in Part D, Item 1 shall include:

a. Design rationale, requirements, criteria, parameters, standards analysis, methods, assumptions and limitations;
b. Site specific data and analysis to support the design and management decisions;
c. Geochemical analysis of Waste Rock and fill, demonstrating their Acid Rock Drainage and Metal Leaching characteristics;
d. Construction methods and procedures regarding how infrastructure will be put in place, including quality assurance and quality control measures and equipment to be used;
e. Technical specifications for sedimentation, erosion control and bank stabilization measures, including proposed materials, location and extent, place methods and quantities required; and
~~f.~~ Timetable for submission, including date of Construction and proposed date of commissioning of infrastructure~~; and~~
~~g. Be signed and sealed by the appropriately qualified Engineer.~~

3. The Licensee shall submit to the Board for review, within ninety (90) days of completion of each facility designed to contain, withhold, divert or retain Waters or wastes, a Construction Summary Report prepared by a qualified Engineer that includes as-built plans and drawings, documentation of field decisions that deviate from original plans and any data used to support these decisions in accordance with Schedule D, Item 1.

4. The Licensee shall provide a brief summary of the Construction Summary Report required by Part D, Item 3, within the Annual Report required by Part B, Item 2.

5. The Licensee shall construct and operate the Fuel Storage and Containment Facilities to meet, at a minimum, all applicable legislation and industry standards that include the following:

a. *Environmental Code of Practice for Aboveground and Underground Storage Tank Systems Containing Petroleum and Allied Petroleum Products, 2003; CCME PN1326 (Updated in 2013)* or most recent; and
b. *National Fire Code, 2010* or most recent.

Commented [KJ15]: KIA Comment: The addition of "Engineered" in the sub-sections to Part D(1) is unnecessary. KIA submits that Part D(1) should apply to infrastructure whether it is considered "engineered" or not.

6. The Licensee shall cease works on water crossings/bridges, should the results of downstream monitoring under Part I, Item 11 exceed the upstream monitoring results for Total Suspended Solids concentration (mg/L) by twenty percent (20%).

7. The Licensee shall ~~only~~ use Waste Rock and fill material for construction, including the construction of any infrastructure, only from approved sources that have been demonstrated by appropriate geochemical analyses to not produce Acid Rock Drainage and to be Non-Metal Leaching, and free of contaminants.

8. The Licensee shall monitor for signs of erosion and implement and maintain sediment and erosion control measures prior to and during the Construction and Operation where necessary to prevent entry of sediment into Water.

9. The Licensee shall conduct daily visual inspections for Construction activity during spring freshet and during and after remarkable rainfall events, with sampling of runoff/Seepage where turbidity is evident.

10. The Licensee shall construct and maintain all containment and runoff control structures to prevent escape of Wastes to surface Waters.

11. The Licensee shall direct contact runoff and Seepage to the Collection Ponds for storage and transfer to the Control Pond No.1 (CP1).

12. All Waters from dewatering activities at Monitoring Program Stations MEL-D-1 through MEL-D-TBD shall be directed to Meliadine Lake and shall not exceed the following Effluent quality limits:

Parameter	Maximum Average Concentration	Maximum Concentration of Any Grab Sample
Total Suspended Solids (TSS) (mg/L)	15.0	30.0
pH	6.0 to 9.5	6.0 to 9.5

13. All Waters, exceeding the Effluent quality limits under Part D, Item 12, shall be released to CP1.

14. The Licensee shall implement the Borrow Pits and Quarries Management Plan~~, dated April 2015~~, and the Roads Management Plan~~, dated April 2015~~, as approved by the Board under Part B, Item 12.

15. The Licensee shall designate an area for the deposition of excavated and stockpiled materials, with respect to access roads, laydown area, pad construction or other earthworks, at a distance of at least thirty-one (31) metres from the ordinary High Water Mark, in order to prevent the deposition of debris or sediment into or onto any Water body.

16. The Licensee shall maintain a minimum of thirty-one (31) metres undisturbed buffer zone between the periphery of quarry sites and the ordinary High Water Mark of any Water body unless otherwise approved by the Board in writing.

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~~ groundwater table, to prevent the potential contamination of surface and groundwater. The quarrying shall be in accordance with all applicable legislation and industry standards including the *Northern Land Use Guidelines, Pits and Quarries* (INAC, 2009, or as revised).

18. All surface runoff and/or discharge from drainage management systems, at the Monitoring Program Stations MEL-SR-1 to MEL-SR-TBD referred to in Part I, Item 11, during the Construction/Operation of any facilities and infrastructure associated with this project, including laydown areas and All-weather Access Road, where flow may directly or indirectly enter a Water body, shall not exceed the following Effluent quality limits:

Parameter	Maximum Average Concentration	Maximum Concentration of Any Grab Sample
Total Suspended Solids (TSS) (mg/L)	50.0	100.0
Oil and Grease	No Visible Sheen	No Visible Sheen
pH	Between 6.0 and 9.5	Between 6.0 and 9.5

19. The Licensee shall supervise and field check through an appropriately qualified Engineer, all Construction of engineered structures in such a manner that the project specification can be enforced and, where required, the quality control measures are followed. The Licensee shall maintain and make available at the request of the Board and/or an Inspector, all Construction records of all engineered structures.

~~19.~~20. The Licensee shall undertake appropriate corrective measures to mitigate impacts on surface drainage resulting from the Licensee's Operations.

~~20.~~

~~21. The Licensee shall conduct all activities in a manner so as to minimize impacts on Surface Drainage and immediately undertake any corrective measures required in the event of any impacts on Surface Drainage.~~

Commented [KJ16]: KIA Comment: KIA does not agree with deleting this provision. KIA submits that Agnico Eagle must be required to minimize impacts on Surface Drainage and take immediate corrective measures.

~~22.~~21. The Licensee shall locate stream crossings to minimize approach grades. Approaches shall be stabilized during Construction and upon completion of the project, to control runoff, erosion and subsequent siltation to any Water body.

~~23.~~22. The Licensee shall limit any in-stream activity to low Water periods. In-stream activity is prohibited during fish migration.

~~24.~~23. The Licensee shall not cut any stream bank or remove any material from below the ordinary High Water Mark of any Water body.

~~25.~~24. The Licensee shall, for the purposes of culvert and bridge construction, ensure that all activities remain outside of the natural channel width by the placement of abutments,

footings or armouring above the ordinary High Water Mark so that there is no restriction to the natural channel processes.

~~26.~~25. Machinery is not permitted to travel up the stream bed and fording of any Water body is to be kept to a minimum. Machinery and equipment should be well cleaned and free of oil and grease and other pollutants and maintained free of fluid leaks.

~~27.~~26. The Licensee shall ensure that pollutants from machinery fording the crossings do not enter Water.

~~28.~~27. The Licensee shall locate equipment storage areas on gravel, sand or other durable land, at a distance of at least thirty one (31) metres above the ordinary High Water Mark of any Water body in order to minimize impacts on Surface Drainage and water quality.

~~29.~~28. The Licensee shall not utilize any equipment or vehicles in the course of this undertaking unless the ground surface is in a state capable of supporting the equipment or vehicles without rutting or gouging. Overland travel of equipment or vehicles shall cease if rutting occurs.

~~30.~~29. The Licensee shall not store material on the surface of frozen streams or lakes except what is for immediate use.

~~31.~~30. The Licensee shall determine all monitoring locations based on operational and site specific requirements, to be recorded and reported within the monthly and annual reports required under Part B, Schedule B and Part I.

~~32. The Licensee shall consider the principles of adaptive management in construction and operations.~~

PART E: CONDITIONS APPLYING TO WATER USE AND MANAGEMENT

1. The Licensee shall obtain all fresh Water for domestic camp use, mining and milling and associated uses, from Meliadine Lake at Monitoring Program Station MEL-~~01~~ 11 using the Fresh Water Intake, or as otherwise approved by the Board in writing. The total authorized volume of Waters for all purposes shall not exceed sixty two thousand (62,000) cubic meters *per* year during Construction and ~~three hundred and eighteen thousand (318,000)~~ seven hundred and forty one thousand, seven hundred and six **(741,706)** cubic meters *per* year during Operations of the Project.

2. The Licensee shall obtain all fresh Water from Meliadine Lake for domestic camp use and re-flooding of Tiriganiaq 1 and 2 Pits and associated uses, or as otherwise approved by the Board in writing. The total authorized volume of Waters for re-flooding of pits shall not exceed four million (4,000,000) cubic metres *per* year during closure of the Project.

3. The Licensee shall obtain ~~all~~ Water for use in dust suppression from ponded Water (against the AWAR), small ponds proximal to the road and/or Water obtained from the Meliadine River, or as otherwise approved by the Board in writing. ~~The total authorized volume of Waters for~~

Commented [KJ17]: KIA Comment: Add as new section at E(2):

"The Licensee may not Discharge Effluent into Meliadine Lake unless there is insufficient capacity in the Waterline as well as insufficient storage capacity in the Collection Ponds and Containment Ponds."

KIA suggests this language to ensure that priority to the Waterline is enforceable to minimize discharges to Meliadine lake.

~~all purposes referred to in Part E, Items 1 and 2 shall be inclusive of the amounts required for dust suppression.~~

4. Where the use of Water for drilling and/or dust suppression is of a sufficient volume that the source Water body may be drawn down, the Licensee shall request approval of the Board in writing

5. The Licensee shall maximize to the greatest practical extent, the use of Reclaim Water from contact Water management facilities, for use in the mill, drilling, and for dust suppression.

6. The Licensee shall not use streams as a Water source unless authorized and approved by the Board in writing.

7. The Licensee shall equip all Water intake hoses with a screen of an appropriate mesh size to ensure that fish are not entrained and shall withdraw Water at a rate such that fish do not become impinged on the screen.

8. The Licensee shall not remove any material from below the ordinary High Water Mark of any Water body unless authorized by the Board in writing.

9. The Licensee shall undertake appropriate corrective measures to prevent and/or mitigate impacts to surface Water resulting from the Licensee's Operation.

10. The Licensee shall implement sediment and erosion control measures prior to and maintain such measures during the undertaking to prevent entry of sediment into Water.

11. The Licensee shall implement the Water Management Plan, ~~dated April 2015,~~ as approved by the Board under Part B, Item 12. The Licensee shall update the Water Management Plan for submission to the Board for review, ~~within sixty (60) days of issuance of this Licence~~when significant content changes are required. ~~The updates are to take into account commitments made with respect to submissions received during the technical review of the Application, as well as final submissions and issues raised during the Public Hearing Process, where applicable.~~

12. The Licensee shall submit an updated Water Management Plan to the Board for approval in writing, at least ninety (90) days prior to starting of the next phase (~~Operation,~~ Closure, Post-closure) of mine development to reflect all changes in operations and/or technology. The Plan shall include updated Water Balance and Water Quality ~~Model~~Forecast, and an action plan to be implemented, if predicted Water quality indicates that treatment is necessary.

13. The Licensee shall review the ~~submit a revised~~ Water Management Plan on an annual basis and provide a summary of changes, if any, in the annual report. A revised Water Management Plan shall be submitted to the Board for review, ~~following the commencement of Operations~~when significant content changes are required.

~~13.~~14. ~~The Plan shall include a~~An updated Water Balance and Water Quality ~~Model~~ Forecast will be provided ~~updated~~ at a minimum of every two (2) years following commencement of Operations. This update will focus on the regulated parameters listed in Part F, Item 3 that

are within 10% of the annual maximum average concentration discharge limit.

~~14~~15. The Licensee shall, on an annual basis during Closure, compare the predicted Water quantity and quality within the pits, to the actual measured water quantity and quality. Should the difference between the predicted and measured values be 20% or greater, then the cause(s) of the difference(s) shall be identified and the implications of the differences shall be assessed and reported to the Board.

~~15.~~16. The Licensee shall implement the ~~submit a~~ Groundwater Management Plan, as approved by the Board under Part B, Item 12 ~~to the Board for approval in writing, at least six (6) months prior to the discharge of any Groundwater~~. ~~The Plan shall take into consideration all comments raised and commitments made with respect to submissions received during the technical review of the Application as well as final submissions and issues raised during the Public Hearing Process, where applicable.~~ The Licensee shall update the Groundwater Management Plan for submission to the Board for review, when significant content changes are required.

~~16.~~17. The Licensee shall carry out Weekly inspections of all Water management structures during periods of flow (rock drains, culverts, sedimentation and pollution control ponds and associated diversion berms, reagent and storage facility sumps, and the sedimentation control berm at the overburden dump) and Monthly thereafter and the records be maintained for review upon request of an Inspector. More frequent inspections may be required at the request of an Inspector.

~~17.~~18. The Licensee shall not breach dikes until the water quality in the pit re-flooded area has been shown to be less than or equal to the CCME Water Quality Guidelines for the Protection of Aquatic Life, ~~baseline concentrations, or~~ appropriate site specific water quality objectives, or the pit lake predictions (Agnico Eagle 2014, FEIS, Table 7.4-22). ~~Should~~ If water quality parameters ~~be~~ are above CCME Guidelines and/or FEIS predictions, a site specific risk assessment must be conducted in order to identify Site Specific Water Quality Objectives (SSWQO's) for the site that that are protective of the aquatic environment. Where they are required, Site Specific Water Quality Objectives shall be incorporated in the approved Final Reclamation and Closure Plan. ~~and approved by the Board in writing, prior to dyke breaching.~~

Commented [KJ18]: KIA Comment: add "and be approved by the Board in writing."

~~18.~~19. The Licensee shall implement measures to minimize the generation and deposition of dust and/or sediment into Water arising from road use.

~~19.~~20. The Licensee shall provide at least thirty~~ninety~~ (~~9~~30) days' notice to the NWB and an Inspector prior to the ~~to~~ start of the next phase (~~Operation,~~ Closure, Post-closure) of mine development including a notice to change~~increase~~ Water use for Operations and notice to increase Water use for re-flooding of pits during Closure .

Commented [KJ19]: KIA Comment: KIA does not agree with shortening the notice period. 30 days notice is too short.

PART F: CONDITIONS APPLYING TO WASTE DISPOSAL AND MANAGEMENT

1. The Licensee shall direct all Sewage and Greywater to the Sewage Treatment Plant for treatment prior to releasing to CP1, or as otherwise approved by the Board in writing.

2. The Licensee shall direct all Contact Water from the Collection Ponds to CP1, or as otherwise approved by the Board in writing.

3. The Discharge of Effluent from the Final Discharge Point at Monitoring Program Station MEL-1~~0~~4 shall be directed to Meliadine Lake through the Meliadine Lake Outfall Diffuser

and shall not exceed the following Effluent quality limits:

Parameter	Maximum Average Concentration	Maximum Concentration of Any Grab Sample
pH	6.0 to 9.5[(a)]	6.0 to 9.5[(a)]
TDS (mg/L) (measured)	~~1400~~3,500	~~1400~~5,000
TSS (mg/L)	15[(a)]	30[(a)]
Total (T)-P (mg/L)	2.0	4.0
T-Al (mg/L)	2	3
T-As (mg/L)	0.3	0.6
T-CN (mg/L)	0.5	1.0
T-Cu (mg/L)	0.2	0.4
NH_4-N (mg/L)	14	18
T-Ni (mg/L)	0.5[(a)]	1.0[(a)]
T-Pb (mg/L)	0.2[(a)]	0.4[(a)]
T-Zn (mg/L)	0.4	0.8
Total Petroleum Hydrocarbons (TPH) (mg/L)	5	5

[(a)] Metal and Diamond Mining Effluent Regulations (SOR/2002-222) continue to apply and may include additional parameters or different concentrations than those described above at any point in time.

4. The Discharge of Effluent from the Final Discharge Point at Monitoring Program Station MEL-104 shall be demonstrated to be non-Acutely Lethal ~~under the following test in accordance with the Schedule I of the Licence:~~

   a. ~~Acute Lethality of Effluents to Rainbow Trout (as per Environment Canada's Environmental Protection Series Biological Test Method EPS/1/RM/13 July 1990, published by the Department of the Environment, as amended in December 2000, and as may be further amended from time to time.~~

5. The Discharge of Effluent onto land from the Fuel Storage Facility at the Itivia Site, Monitoring Program Station MEL-215, shall not exceed the following Effluent quality limits:

Parameter	Maximum Average Concentration	Maximum Concentration of any Grab sample
pH	6.0 to 9.5	6.0 to 9.5
Total Suspended Solids (mg/L)	15	30
Benzene (µg/L)	370	370
Toluene (µg/L)	2	2
Ethylbenzene (µg/L)	90	90
T-Pb (mg/L)	0.1	0.1
Oil and Grease (mg/L)	5 and no visible sheen	5 and no visible sheen

6. The Licensee shall, under Part F, Item 5, discharge Effluent to a location at a distance of at least thirty-one (31) metres above the ordinary High Water Mark of any Water body, in such a manner as to minimize surface erosion to where direct flow into a Water body is not possible and no additional impacts are created, or as otherwise approved by the Board in writing.

7. All Effluent at Monitoring Station MEL-25~~15~~, that exceeds the Effluent quality limits under Part F, Item 5, shall be transferred to CP1.

8. The Licensee shall confirm compliance with Effluent quality limits referred to in Part F, Items 3 and 5 prior to Discharge.

9. The Licensee shall submit to the Board for approval in writing an Operation and Maintenance Manual(s) for the Wastewater Treatment Plant(s), including the Sewage Treatment Plant, at least ninety (90) days prior to the construction/installation of facilities, prepared in accordance with the "*Guidelines for the Preparation of an Operation and Maintenance Manual for Sewage and Solid Waste Disposal Facilities in the Northwest Territories; 1996"*. The Manual(s) shall include sludge management and disposal information and contingency measures in the event of plant malfunction.

10. The Licensee shall provide at least ten (10) day notice to the Inspector prior to any planned Discharge from any facility. The notice shall include the estimated volume proposed for Discharge and the receiving location.

11. The Licensee shall locate areas designated for Waste disposal at a minimum distance of thirty-one (31) metres from the ordinary High Water Mark of any Water body such that the quality, quantity or flow of Water is not impaired, or as otherwise approved by the Board in writing.

12. The Licensee shall implement the Mine Waste Management Plan, ~~dated April 2015,~~ as approved by the Board under Part B Item 12. The Licensee shall update the Mine Waste Management Plan for submission to the Board for review, ~~within sixty (60) days of issuance of this Licence~~when significant content changes are required. ~~The updates are to take into account commitments made with respect to submissions received during the technical review of the Application, as well as final submissions and issues raised during the Public Hearing Process, where applicable.~~

13. The Licensee is authorized to dispose of and contain all non-hazardous, solid Wastes at the Meliadine Non-Hazardous Waste Landfill in accordance with the ~~approved "Meliadine Gold Project~~ Landfill Design and Waste Management Plan", ~~dated April 2012 and "Landfill and Waste Management Plan" dated April 2015, or~~ as ~~otherwise~~ approved by the Board under Part B, Item 12~~in writing~~.

14. The Licensee ~~shall dispose of all food waste in an incinerator designed for this purpose and meets the requirements of the Canada-Wide Standards for Dioxins and Furans and Canada-Wide Standards for Mercury emissions or other standards as they become~~

~~availableaccordance with the Incineration Management Plan, dated April 2015, as approved by the Board under Part B, Item 12.~~shall manage domestic waste and other items as per the Incineration Management Plan, as approved by the Board under Part B, Item 12, which may include an adaptive management approach for use of a composter or other options.

~~15.~~

~~16.~~15. The Licensee shall not open burn plastics, wood treated with preservatives, electric wire, Styrofoam, asbestos or painted wood to prevent the deposition of waste materials of incomplete combustion and/or leachate from contaminated ash residual, from impacting any surrounding waters, unless otherwise approved by the Board in writing.

~~17.~~16. The Licensee shall remove from the Project site, all solid and liquid Hazardous Wastes generated through the course of the project's activities, for disposal at an approved hazardous waste disposal facility in accordance with the Hazardous Materials Management Plan, ~~dated April 2015,~~ as approved by the Board under Part B, Item 12 .

~~18.~~17. The Licensee shall incorporate Seepage management at Quarries using best management practices including ditches, diversions, sumps and berms where necessary.

~~19.~~18. The Licensee shall maintain records of all Waste backhauled and confirmation of proper disposal through the use of Waste manifest tracking systems and registration with the Government of Nunavut, Department of Environment. These records shall be made available to an Inspector upon request.

~~20.~~19. The Licensee shall dispose/treat of all petroleum hydrocarbon contaminated soils in the Landfarm in accordance with the Landfarm Management Plan, ~~dated April 2015,~~ as approved by the Board under Part B, Item 12.

~~21.~~20. Licensee shall dispose of tailings and operate the Tailings Storage Facility in accordance with the Mine Waste Management Plan, ~~dated April 2015,~~ as approved by the Board under Part B, Item 12, *Guide to the Management of Tailings Facilities* (*Mining Association of Canada September 2011 or more recent*) and with the engineering standards such that:

a. Implement Adaptive Management strategies as required;
b. Seepage from the TSF shall be collected in Collection Pond No.3 (CP3) and monitored for water quality;
c. The Licensee shall carry out, at a minimum, weekly inspections during any period in which the site is occupied and Water is being actively managed, to identify and remediate where necessary, areas of concern including issues of Seepage, cracking, and ponding for all structures and other associated structures; and
d. The Licensee shall consult the Geotechnical Engineer when significant issues associated with the TSF are observed and implement the Engineer's recommendations as necessary;
e. The solids fractions of all mill tailings (except for mill tailings that will be used ~~filtered cyanide leach residue placed~~ for paste backfill in the underground ~~as mine backfill~~) shall be deposited and permanently contained within the TSF;

~~f. The Licensee shall place all filtered cyanide leach residue in the TSF;~~

~~g.~~f. An annual Geotechnical inspection shall be carried out in accordance with Part I, Item 14;

~~h.~~g. The Licensee shall perform more frequent inspections of the facilities at the request of an Inspector;
~~i.~~h. The Licensee shall maintain records of all inspections for the review of an Inspector upon request.

PART G: CONDITIONS APPLYING TO MODIFICATIONS

1. The Licensee may, without written consent from the Board, carry out Modifications provided that such Modifications are consistent with the terms of this Licence and the following requirements are met:

   a. The Licensee has notified the Board in writing of such proposed Modifications at least sixty (60) days prior to beginning the Modifications;
   b. Such Modifications do not place the Licensee in contravention of the Licence or the Act;
   c. Such Modifications are consistent with the NPC Land Use Planning and NIRB Screening Determinations;
   d. The Board has not, within sixty (60) days following notification of the proposed Modifications, informed the Licensee that review of the proposal will require more than sixty (60) days; and
   e. The Board has not rejected the proposed Modifications.

2. Modifications for which any of the conditions referred to in Part G, Item 1 have not been met can be carried out only with approval from the Board in writing.

3. Applications for modifications shall contain:

   a. A description of the facilities and/or works to be constructed;
   b. The proposed location of the structure(s);
   c. Identification of any potential impacts to the Receiving Environment;
   d. A description of any monitoring required, including sampling locations, parameters measured, and frequencies of sampling;
   e. Schedule for construction;
   f. Drawings of Engineered Structures stamped by an ~~Professional~~ Engineer; and
   g. Proposed sediment and erosion control measures.

4. The Licensee shall provide to the Board, within ninety (90) days of completion of the Modification, as-built plans and drawings of the Modifications referred to in this Part. These plans and drawings shall be stamped by an Engineer.

PART H: CONDITIONS APPLYING TO EMERGENCY RESPONSE AND CONTINGENCY PLANNING

1. The Licensee shall implement and maintain the Spill Contingency Plan, ~~dated April 2015,~~ the Hazardous Materials Management Plan, ~~dated April 2015,~~ and the Risk Management and Emergency Response Plan, ~~dated April 2015~~, as approved by the Board under Part B, Item 12. The Licensee shall comply with the Plan(s), and any changes deemed significant shall require the submission and subsequent approval of the Board in writing.

2. The Licensee shall prevent any chemicals, petroleum products or unauthorized Wastes associated with the Project from entering Water.

3. The Licensee shall provide secondary containment for fuel and chemical storage as required by applicable standards and acceptable industry practice.

4. The Licensee shall perform weekly inspections of Fuel Storage and Containment Facilities, for leaks and settlement and shall keep a written log of inspections to be made available to an Inspector upon request. More frequent inspections may be requested by an Inspector.

5. The Licensee shall, upon providing notification with respect to Care and Maintenance under Part J, Item 2, shall submit to the Board an Addendum to the Emergency Response Plan and the Spill Contingency Plan, detailing the changes in operations, personnel, responsibilities, availability of equipment and access to the site for assistance.

6. The Licensee shall keep a copy of the Emergency Response Plan and the Spill Contingency Plan at each site of operation.

7. The Licensee shall conduct emergency maintenance and servicing on equipment, in designated areas, and shall implement measures to collect motor fluids and other Waste to prevent and contain spills.

8. The Licensee shall, subject to Section 16 of the Regulations, report any unauthorized deposits or foreseeable unauthorized deposits of waste and/or discharges of Effluent, and:

    a. Employ the Spill Contingency Plan;
    b. Report the incident immediately via the 24-Hour NWT/NU Spill Reporting Line (867) 920- 8130 and to the Inspector at (867) 975-4295; and
    c. For each spill occurrence, submit a detailed report to the Inspector, no later than thirty (30) days after initially reporting the event, which includes the amount and type of spilled product, the GPS location of the spill, and the measures taken to contain and clean up the spill site.

9. The Licensee shall, in addition to Part H, Item 8, regardless of the quantity of release of a harmful substance, report to the 24 hour NWT/NU Spill Reporting Line if the release is near or into a Water body.

Commented [CP20]: Note to NWB – please confirm these numbers are correct

PART I: CONDITIONS APPLYING TO GENERAL AND AQUATIC EFFECTS MONITORING

1. The Licensee shall implement the Environmental Management and Protection Plan, ~~dated April 2015~~, as approved by the Board under Part B, Item 12. ~~The Licensee shall update the Environmental Management and Protection Plan for submission to the Board for review, within sixty (60) days of issuance of this Licence. The updates are to take into account commitments made with respect to submissions received during the technical review of the Application, as well as final submissions and issues raised during the Public Hearing Process, where applicable.~~

~~2. The Licensee shall update the Environmental Management and Protection Plan for submission to the Board for approval in writing, at least ninety (90) days prior to Operations. The updates are to take into account commitments made with respect to submissions received during the technical review of the Application, as well as final submissions and issues raised during the Public Hearing Process, where applicable.~~

~~a. Comprehensive Receiving Environment monitoring to identify changes to the aquatic environment associated with mine activities;~~
~~b. Linkage between monitoring results and adaptive management response;~~
~~d. Sampling and analysis plans;~~
~~e. Thresholds for contaminant levels in CP1 and triggers for mitigation measures; and~~
~~e. Monitoring under Fisheries Authorizations, NWB Licence Compliance Monitoring, Metal Mining Effluent Regulations (MMER) Environmental Effects Monitoring, and Groundwater Monitoring.~~

~~3. The Licensee shall implement the Aquatic Effects Monitoring Program (AEMP) Design Plan, dated April 2015, as approved by the Board under Part B, Item 12. The Licensee shall update the AEMP Design Plan for submission to the Board for review, within sixty~~
~~4. (60) days of issuance of this Licence. The updates are to take into account commitments made with respect to submissions received during the technical review of the Application, as well as final submissions and issues raised during the Public Hearing Process, where applicable.~~

~~5. The Licensee shall implement the Plan entitled "Monitoring Plan for the Phase 1 All-Weather Access Road between Rankin Inlet and the Meliadine site" dated January 2012, that was previously approved by the Board within the issuance of the 2BW-MEL1215 original Licence related to AWAR construction/operartion.~~

~~6.~~2. The Licensee shall install and maintain flow meters or other such devices, or implement suitable methods required for the measuring of the Use of Water and Effluent discharge volumes, to be operated and maintained to the satisfaction of an Inspector.

~~7.~~3. The Licensee shall undertake the Water Monitoring Program provided in the Tables 1 and 2 of Schedule I. The Licensee shall establish the locations and GPS coordinates for all monitoring stations in consultation with an Inspector.

~~8.~~4. The Licensee shall install and maintain signs that identify monitoring stations. The signs shall be posted in English and~~,~~ Inuktitut ~~and French~~.

~~9.~~5. The Licensee shall conduct Acute Lethality Testing, at monitoring station MEL-1~~0~~4, in accordance with Part F, Item 4 and Schedule I.

~~10.~~6. The Licensee shall measure and record the following on a Monthly basis in cubic metres or as otherwise stated:

a. The volume of fresh Water obtained from Meliadine Lake at Monitoring Program Station MEL-~~0~~11;
b. The volume of fresh Water transferred to the Meliadine Lake during lakes' dewatering activities;
c. The volume of fresh Water obtained along the road and Meliadine River for dust suppression activities;
d. The volume of Effluent discharged from Final Discharge Point at Monitoring Program Station MEL-~~0~~14;
e. The volume of reclaim Water obtained from the CP1;
f. The volume of Effluent discharged onto tundra at Monitoring Program Station MEL-~~1~~25 or transferred to CP1 from the Itivia Site Fuel Storage and Containment Facility;
g. The volume of Effluent and Fresh Water transferred to the pits during pits' flooding;
h. The volume of Sewage sludge removed from the Sewage Treatment Plant and the locations or methods of Sewage sludge disposal;
i. Quantity of waste placed within the Landfill and Landfarm;
j. Tonnes of ore stockpiled and ore processed through the mill;
k. Tonnes of waste rocks placed within the Waste Rock Storage Facilities; and
l. The daily tonnes of dry combined tailings placed within the Tailings Storage Facility.

~~11.~~7. The Licensee shall submit to the Board, within thirty (30) days following the month being reported, a Monthly Monitoring Report. The Report shall include:

a. All data and information required by this Part and generated by the Monitoring Program in the Tables of Schedule I;
b. An assessment of data to identify areas of non-compliance with regulated discharge parameters referred to in Parts D and F.

~~12.~~8. The Licensee shall complete water quality testing immediately upstream and downstream of water crossings, any significant Water seeps in contact with the roads and any significant Water seeps/runoff originating from borrow pits and quarries, during blasting activities, periods of flow and following significant precipitation events at Monitoring Program Stations MEL-SR-1 through MEL-SR-TBD, prior to Construction, on a weekly basis during Construction and on a monthly basis upon completion of construction, in accordance with the Part D, Item 18 and Schedule I of the Licence.

~~13. The Licensee shall submit to the Board for approval, within six (6) months following construction of each the Mine Site Fuel Storage and Containment Facility and Itivia Site Fuel Storage and Containment Facility, a plan for the environmental and performance monitoring of each Facility. The Plans are to include:~~

~~a. An assessment of performance;~~
~~b. Location, environmental setting and the potential for leaks or Seepage that could impact Water;~~
~~c. An assessment of the need for, and if required, the design for installation, monitoring, and maintenance of vertical Groundwater monitoring wells to be installed in accordance with the *Environmental Code of Practice for Aboveground Storage Tank Systems Containing Petroleum Products, 2003; CCME*; and~~
~~d. Recommended sampling for ongoing monitoring of the integrity of the secondary containment.~~

~~14.~~9. The Licensee shall undertake the Waste Rock Storage Facilities' and Tailings Storage Facility's Thermal Monitoring Program detailed in the Environmental Management and Protection Plan, ~~dated April 2015,~~ and Mine Waste Management Plan, ~~dated April 2015,~~ as approved by the Board under Part B, Item 12.

~~15.~~10. The Licensee shall undertake a geotechnical inspection, to be carried out annually by a Geotechnical Engineer, between the months of July and September. The inspection shall be conducted in accordance with the *Canadian Dam Safety Guidelines* where applicable and take into account all major earthworks, included within Schedule I.

~~16.~~11. The Licensee shall submit to the Board as part of the Annual Report required by Part B, Item 2, a Geotechnical Engineer's Inspection Report. The Report shall include a cover letter from the Licensee outlining an implementation plan addressing each of the Geotechnical Engineer's recommendations.

~~17.~~12. The Licensee shall obtain a digital photographic record of all the watercourse crossings before, during, and after construction has been completed.

~~18.~~13. The Licensee shall maintain a Quality Assurance / Quality Control Plan, accepted by the Board that includes a cover letter from the accredited laboratory confirming approval of the Plan for analyses to be performed under this Licence. The QA/QC Plan shall be prepared and updated as needed in accordance with and in consultation with the accredited laboratory conducting the analyses. This Plan shall be developed in accordance with current Standard Methods and the 1996 Quality Assurance (QA) and Quality Control (QC) Guidelines for Use by Class "A" (INAC).

~~19.~~14. The Licensee shall annually review the approved QA/QC Plan and modify the Plan as necessary. Proposed changes shall be submitted to an Accredited Laboratory for approval.

~~20.~~15. All analyses shall be conducted as described in the most recent edition of "*Standard Methods for the Examination of Water and Wastewater*" or by other such methods approved by an Analyst.

~~21.~~16. All compliance analyses shall be performed in an accredited laboratory according to ISO/IEC Standard 17025. The accreditation shall be current and in good standing.

~~22.~~17. The NWB can modify the Monitoring Program as set out in Schedule I without a public hearing. Requests for changes to the Program should be forwarded to the NWB in writing, and should include the justification for the change.

~~23.~~18. Additional monitoring may be imposed by the Board or by the Inspector.

PART J: CONDITIONS APPLYING TO ABANDONMENT, RECLAMATION AND CLOSURE

~~1.~~ The Board has approved the document entitled the Interim ~~Preliminary Mine~~ Closure and Reclamation Plan, ~~dated April 2015,~~ under Part B, Item 12~~. The Licensee shall submit to the Board for approval, within six (6) months of Commercial Operation, an Interim Closure and Reclamation Plan prepared~~ in accordance with the *Mine Site Reclamation Guidelines for the Northwest Territories, 2007* and consistent with the INAC *Mine Site Reclamation- Policy for Nunavut, 2002*. The Plan shall include the following:

1.

a. Detailed description, including maps and other visual representations, of the pre-Construction conditions for each site, accompanied by a detailed description of the proposed final landscape, with emphasis on the reclamation of surface drainage over the restored area;
b. A description of how progressive reclamation will be employed and monitored throughout the life of the mine, plus reclamation scheduling and coordination of activities with the overall sequence of the project; details of reclamation scheduling and procedures for coordinating reclamation activities within the overall mining sequence and materials balance;
c. Implications of water quality model re-calibration results on discharge strategy and any adaptive management measures that may be required;
d. An evaluation of closure and reclamation measures for each mine component, including the goals, objectives, closure criteria and the rationale for selection of the preferred measures;
e. A comprehensive assessment of materials suitability, including geochemical and physical characterization, and schedule of availability for reclamation needs, with attention to cover materials, including maps where appropriate, showing sources and stockpile locations of all reclamation construction materials and any Water related mitigation required during implementation;
f. An assessment and description of any required post-closure treatment for drainage Water that is not acceptable for discharge from any of the reclaimed mine components;

g. Contingency measures for all reclamation components including action thresholds that are linked to the monitoring programs;
h. Monitoring programs to assess reclamation performance and environmental conditions including monitoring locations for surface Water and groundwater, parameters, schedules and overall timeframes;
i. QA/QC procedures for managing all waste disposal areas;
j. A list of non-salvageable materials and disposal locations;
k. Rock storage facility closure design plans and sections including the types of material placed and volumes;
l. Underground mine plans and sections, including the areas of backfill, the type of material placed and volumes;
m. Protocol for the disposal of any contaminated soil at closure;
n. An assessment of the long-term physical stability of project components;
o. A detailed criteria for the final breaching of the Dam(s);
p. A revised closure and reclamation cost estimate; and
q. A detailed implementation schedule for completion of reclamation work.

2. The Licensee shall notify the Board in writing, at least sixty (60) days prior to, or as soon as practically possible, the intent to enter into a Care and Maintenance Phase.

3. The Licensee shall provide the Board for review, within thirty (30) days of the Licensee providing notice of intent to enter into Care and Maintenance under Part J, Item 2, a Care and Maintenance Plan that details the Licensee's plans for maintaining compliance with the Terms and Conditions of the Licence.

4. The Licensee shall provide the Board for approval in writing, within ninety (90) days of the Licensee providing a notice of intent to enter into Care and Maintenance under Part J, Item 2, all operational revised Plans to reflect the Care and Maintenance status.

5. The Licensee shall submit to the Board for approval at least twelve (12) months prior to the expected end of planned mining, a Final Closure and Reclamation Plan. The Final Plan shall incorporate revisions, which reflect the pending closed status of the mine, and include:

a. Soil Quality Remediation Objectives along with CCME Guidelines and the Government of Nunavut Environmental Guideline for Site Remediation;
b. Environmental Site Assessment plans in accordance Canadian Standards Association (CSA) criteria; and
c. An evaluation of the Human Health and Ecological Risk associated with closure options.

6. The Licensee shall complete all reclamation work in accordance with the Plan(s) referred to in this Part as and when approved by the Board in writing.

7. The Licensee shall review the Plans referred to in this Part as required by changes in operation and/or technology and modify the Plans accordingly. Revisions to the Plans

should incorporate design changes and adaptive engineering required and implemented during Construction and on the basis of actual site conditions and monitoring results over the life of the Project.

8. The Licensee shall implement progressive reclamation, including progressive covering of the tailings, and re-vegetation if practically possible.

~~9. The Licensee shall notify the Board in writing, at least sixty (60) days prior to any intent to achieve Recognized Closed Mine status.~~

Commented [KJ21]: KIA Comment: KIA objects to removing this requirement.

SCHEDULES

Schedule A: Scope, Definition, and Enforcement
Schedule B: General Conditions
Schedule C: No Schedule for Security
Schedule D: Conditions Applying to Construction
Schedule E: No Schedule for Water Use and Management
Schedule F No Schedule for Waste Disposal and Management
Schedule G: No Schedule for Modifications
Schedule H: No Schedule for Emergency Response and Contingency Planning
Schedule I: Conditions Applying to General and Aquatic Effects Monitoring
Schedule J: No Schedule for Abandonment, Reclamation and Closure

Schedule A: Scope, Definitions, and Enforcement

In this Licence: **2AM-MEL1631**

"**Abandonment**" means the permanent dismantlement of a facility so it is permanently incapable of its intended use. This includes the removal of associated equipment and structures;

"**Act**" means the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*;

"**Acid Rock Drainage (ARD)**" means the production of acidic leachate, Seepage or drainage from underground workings, open pits, ore piles, waste rock, construction rock that can lead to the release of metals to groundwater or surface Water during the life of the Project and after closure;

"**Acutely Lethal ~~Effluent~~**" means effluent as defined in the *Metal and Diamond Mining Effluent Regulations* (SOR/2002-222 dated June 6, 2002 and ~~last amended on May 20, 2015, and~~ as may be further amended from time to time).

"**Adaptive Management**" means a management ~~plan~~ approach that describes a way of managing risks associated with uncertainty and provides a flexible framework for mitigation, monitoring and management measures to be implemented and actions to be taken when specified thresholds are exceeded. Measures may include special studies, operational changes, revised or new water and waste management systems, structures and/or facilities or implementing mitigation activities to prevent, stabilize or reverse a change in environmental conditions or otherwise protect the Receiving Environment;

"**Addendum**" means the supplemental text that is added to a full plan or report, usually included at the end of the document and is not intended to require a full resubmission of the revised report. It may also be considered as an appendix or supplement;

"**All Weather Access Road**" means an ~~approximately 25 km Phase 1~~ All Weather Access Road (AWAR) and associated water crossings between the Hamlet of Rankin Inlet and the Meliadine Gold mine site as described in the ~~Application document entitled "~~Roads Management Plan~~" dated April 2015 and illustrated in Drawings No. 105-245-250-0A, 105-245-256-0A Agnico- Eagle All Weather Access Road Bridges, Pr. No. MEL-CS-001~~;

"**Amendment**" ; means a change to any terms and conditions of this Licence through application to the NWB, requiring a change, addition, or deletion of specific terms and conditions of the Licence not considered as a M~~m~~odification;

"**Analyst**" means an Analyst designated by the Minister under section 85 (1) of the *Act*;

"**Annually**" means, in the context of monitoring frequency, one sampling event occurring every 365 days with a minimum of 200 days between sampling events;

"**Appurtenant Undertaking**" means an undertaking in relation to which a use of Water or a

deposit of waste is permitted by a licence issued by the Board;

"**Aquatic Effects Monitoring Program (AEMP)**" means a monitoring program designed to determine the short and long-term effects in the aquatic environment resulting from the Project, to evaluate the accuracy of impact predictions, to assess the effectiveness of planned impact mitigation measures and to identify additional impact mitigation measures to avert or reduce environmental effects;

~~"**Biannual**" means, in the context of monitoring frequency, one sampling event occurring every six months with a minimum of one hundred eighty days between sampling events;~~

"**Board**" means the Nunavut Water Board established under Article 13 of the *Nunavut ~~Land Claims~~ Agreement* and under section 14 of the Act;

"Borrow Pits" means sites used for the purpose of extracting materials, such as gravel or sand, for the construction of site infrastructure and facilities;

"**By-pass Road**" means ~~an approximately 5 km~~ access, service, and haul roads and associated water crossings ~~around the Hamlet of Rankin Inlet from Rankin Inlet' Itivia Laydown Area to the AWAR as described in the Application document entitled "*Roads Management Plan*" dated April 2015~~ as described in the Roads Management Plan;

"**Canadian Council of Ministers of the Environment (CCME)**" means the organizations of Canadian Ministers of Environment that sets guidelines for environmental protection across Canada such as the *Canadian Water Quality Guidelines for the Protection of Freshwater Aquatic Life*;

"**Care and Maintenance**" in respect of a mine, means the status of the facility when the Licensee ceases production or Commercial Operation temporarily for an undefined period of time;

"**Closure**" means when an Operator ceases Operations at a facility without the intent to resume mining activities in the future;

"**Collection Pond or Containment Pond**" means a facility designed to temporarily contain runoff from areas impacted by mining activities, and site infrastructure~~, specifically the waste rock storage facilities, the ore stockpiles, tailings storage facility, industrial pad, the camp mill pad and open pits~~ as described in the Water Management Plan~~Application document entitled "*Water Management Plan*" dated April 2015, and illustrated in Drawings No. 6509-660-230-200, 6509-660-230-201-001, and 6509-660-230-202-001: Typical Sections for Contact Water Pond CP2, CP3, CP4~~;

"**Collection Pond No.1 or Control Pond No.1 or Containment Pond No. 1 (CP1)**" means a ~~final site-wide~~ contact water collection pond~~. Water collected in CP1 will be reused by the process plant and the excess water will be treated by the WTP prior to discharge to the outside environment via the diffuser into Meliadine Lake~~ as described in the ~~Application document entitled "*Water Management Plan*" dated April 2015~~Water Management Plan~~~~;

Commented [CP22]: Note to NWB: This term is not used in the licence

Commented [KJ23R22]: KIA Comment: this term is used in the license at Table 2 of Schedule I

Commented [KJ24]: KIA Comment: AEM's proposed revised definition reduces clarity. The only by-pass road described in the Roads Management Plan is the by-pass road around the Hamlet of Rankin Inlet. KIA recommends that the definition clearly refer only to a "road" (singular), meaning the by-pass road around the Hamlet of Rankin Inlet.

"**Commercial Operation**" in respect of a mine, means an average rate of production equal to or greater than 10% of the design-rated capacity of the mine over a period of 90 consecutive days as defined in the *Metal and Diamond Mining Effluent Regulations (*SOR/2002-222 dated June 6, 2002 ~~and last amended on May 20, 2015,~~ and as may be further amended from time to time).

"**Construction**" means any activities undertaken to construct or build any component of, or associated with, the development of the Meliadine Gold Project~~, as described in the Water Licence Application, Supporting Documents, and Technical Meeting Information Supplement documents submitted to the Board throughout the regulatory process~~;

"**Contact Water**" means any Water that may be physically or chemically affected by mining activities;

"**Dam Safety Guidelines**" means the *Canadian Dam Association (CDA) Dam Safety Guidelines* (DSG), (2007) or subsequent approved editions;

"**Deposit**" means the placement of waste rock, tailings or other materials on land or in Water;

"**Diffuser**" means an Effluent discharge pipeline within a water body designed to discharge and enhance mixing of Effluent in the Receiving Environment as described in the Water Management Plan ~~pipeline used to move treated Water to the outside environment, as indicated in the Appendix E of the Application document entitled "*Water Management Plan*" dated April 2015, and illustrated in Figure 2: Diffuser Piping Detail~~;

"**Discharge**" means the release of any Water or Waste to the Receiving Environment;

"**Dissolved Metals**" means the suite of metals referred to in the Water Management Plan ~~Table 6.3 of the "*Type A Water Licence Main Application Document*" dated April 2015,~~ and in Group 2 of Table 1 – Monitoring Groups located in Schedule I~~J~~ of this Licence. Dissolved metals shall be analyzed on a filtered sample;

"**Effluent**" means treated or untreated liquid waste material that is discharged into the environment from the site water management facility such as a settling pond, tankfarm or a treatment plant;

"**Emulsion Plant**" means a facility designed for manufacturing of emulsion-based explosives, as indicated in the ~~Application document entitled "*Explosives Management Plan*" dated April 2015, and illustrated in Drawing No.8810282-0070: ANE Manufacturing PFD Process Flow Diagram~~Explosives Management Plan;

"**Engineer**" means a professional engineer registered to practice in Nunavut in accordance with the *Consolidation of Engineers and Geoscientists Act S. Nu 2008, c.2* and the *Engineering and Geoscience Professions Act S.N.W.T. 2006, c.16 Amended by S.N.W.T. 2009, c.12*;

"**Engineered Structure(s)**" means any facility, which was designed and approved by a ~~Professional~~ Engineer ~~registered with the Association of Professional Engineers, Geologists and Geophysicists of Nunavut~~;

"**Final Discharge Point**" in respect of an effluent, means an identifiable discharge point of a mine beyond which the operator of the mine no longer exercises control over the quality of the effluent as defined in the *Metal and Diamond Mining Effluent Regulations* (SOR/2002-222, June, 6, 2002 ~~and amended on March 2, 2012,~~ and as may be further amended from time to time);

"**Fresh Water Intake**" means the infrastructure required for extraction (pump system) of water ~~from Meliadine Lake including the causeway~~ as indicated in the Water Management Plan~~Application document entitled "*Water Management Plan*" dated April 2015, and illustrated in Drawing No. 6509-630-230-200: Profile and Typical Section for WTP Intake Causeway~~;

"**Fuel Storage and Containment Facilities**" means the facilities designed for the bulk storage of fuel ~~at the Meliadine Site and Itivia Site Fuel Storage and Containment Facilities~~ as described in the Hazardous Materials Management Plan~~"*Type A Water Licence Main Application Document*" dated April 2015~~;

"**Geotechnical Engineer**" means a professional engineer registered with the Association of Professional Engineers, Geologist and Geophysicists of Nunavut and whose principal field of specialization with the engineering properties of earth materials in dealing with man-made structures and earthworks that will be built on a site. These can include shallow and deep foundations, retaining walls, dams, and embankments;

"**Grab Sample**" means an undiluted quantity of material collected at a particular time and place that may be representative of the total substance being sampled at the time and place it was collected;

"**Greywater**" means the component ~~of effluent~~ produced from domestic use (i.e. washing, bathing, food preparation and laundering)~~, excluding sewage~~;

"**Groundwater**" means water that occupies pores and fractures in rock and soil below ~~the ground~~the ground surface in a liquid or frozen state;

"**Hazardous Waste**" means materials or contaminant which are categorized as dangerous goods under the *Transportation of Dangerous Good Act* (1992, c. 34, last amended on August 28, 2019 and as may be further amended from time to time) and/or that is no longer used for their original purpose and is intended for recycling, treatment, disposal or storage;

"**High Water Mark**" means the usual or average level to which a body of water rises at its highest point and remains for sufficient time so as to change the characteristics of the land (ref. *Department of Fisheries and Oceans Canada, Operational Statement: Mineral Exploration Activities*);

"**Incinerator**" means the dual chamber, high temperature facility designed with the capacity to service the camp as described in the ~~Application document entitled "*Incineration Management Plan*" dated April 2015~~Incineration Management Plan;

"Inspector" means an Inspector designated by the Minister under section 85 (1) of the Act;

"**Interim Closure and Reclamation Plan**" means a conceptual detailed plan on the ~~r~~Reclamation of mine components which will not be closed until the end of the ~~commercial~~ operation, and operational detail for components which are to be progressively reclaimed throughout the mine life;

"**Itivia Laydown Area**" means the area designed for temporary storage of equipment and materials at Itivia Site in Rankin Inlet, as indicated in the Hazardous Materials Management Plan~~"*Type A Water Licence Main Application Document*" dated April 2015, and illustrated in Figure 1.2b~~;

"**Itivia Site Fuel Storage and Containment Facility**" means the fuel storage and containment facility at Itivia Site in Rankin Inlet as described in the Hazardous Materials Management Plan~~"*Type A Water Licence Main Application Document*" dated April 2015~~;

"**Itivia Site**" means the Itivia Laydown Area and its facilities, including the fuel storage and containment facili~~t~~y, in Rankin Inlet as described in the Hazardous Materials Management Plan~~"*Type A Water Licence Main Application Document*" dated April 2015~~;

"**Landfill**" means a facility designed to dispose of non-salvageable, non-hazardous, non-putrescible solid wastes from the Construction, Operation, and Closure of the Project, as ~~indicated in the Application documents entitled "*Type A Water Licence Main Application Document*" dated April 2015, "*Landfill and Waste Management Plan*" dated April 2015, and illustrated in the Drawings No. 6509-666-210-200-004: Typical Design Section for Landfill and No. 6509-666-210-200-006: Typical Sections for Landfill Closure~~described in the Landfill and Waste Management Plan;

"**Landfarm**" means the engineered area designed to contain and treat hydrocarbon impacted sediment and soil using bioremediation as ~~indicated in the documents entitled "*Type A Water Licence Main Application Document*" dated April 2015, "*Landfarm Management Plan*" dated April 2015, and illustrated in the Drawing No. 6509-665-210-200-002: Typical Design Section for Landfarm~~described in the Landfarm Management Plan;

"**Licence**" means this Type "A" Water Licence 2AM-MEL1631, issued by the Nunavut Water Board in accordance with the *Act*, to Agnico Eagle Mines Limited for the Meliadine Gold Project. Type "B" Water Licenses 2BW-MEL1525 and 8BC-MEL1516 are now amalgamated within File No: 2AM-MEL1631;

"**Licensee**" means to whom the Licence 2AM-MEL1631 is issued to or assigned;

"**Maximum Average Concentration**" means the average concentration of any four consecutively collected samples taken from the identical sampling location and taken during any given timeframe;

"**Meliadine Security Management Agreement**" means the agreement between Kivalliq Inuit Association, (KIA), Agnico-Eagle Mines Limited (Proponent) and Her Majesty Queen in Right of Canada as represented by the Minister of Indigenous and Northern Affairs Canada (the Minister), signed by KIA, ~~and~~ AEM ~~on February 16, 2016~~, and by the Minister ~~on February 17, 2016~~ that

applies with respect to the Proponent's Meliadine gold mine project.

"**Metal Leaching**" means the mobilization of metals into solution under neutral, acidic or alkaline conditions;

"**Mine Water**" means any water, including groundwater, that is pumped or flows out of any underground workings or open pit;

"**Minister**" means the Minister of ~~Indigenous and~~ Northern Affairs Canada ~~(INAC)~~;

"**Modification**" means an alteration to a physical work that introduces a new structure or eliminates an existing structure and does not alter the purpose or function of the work;

"**Monitoring Program**" means the program to collect data on surface water and groundwater quality to assess impacts to the environment of an appurtenant undertaking;

"**Monthly**" means, in the context of monitoring frequency, one sampling event occurring every thirty (30) days with a minimum of twenty one (21) days between sampling events;

"**Nunavut ~~Land Claims~~ Agreement**" (N~~LC~~A) means the "*Agreement Between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in Right of Canada*," including its preamble and schedules, and any amendments to that agreement made pursuant to it;

"Nutrients" means the suite of parameters referred to in ~~Table 6.3 of the "*Type A Water Licence Main Application Document*" dated April 2015~~Water Management Plan, and in Group 2 of Table 1 – Monitoring Groups located in Schedule I~~J~~ of this Licence;

"**Operation or Operations**" means the entire set of site activities (excluding construction, care and maintenance, and decommissioning activities) associated with mining, processing and recovery of gold ~~at the Meliadine Gold Project, as described in the Water Licence Application, Supporting Documents, and Technical Meeting Information Supplement documents submitted to the Board throughout the regulatory process~~;

"**Operator**" means the person who operates, has control or custody of, or is in charge of a mine or recognized closed mine;

"**Ore Stockpile**" means the above-ground facility designated for the temporary storage of ore to be processed in the mill as indicated in the ~~Application document entitled "*Ore Storage Management Plan*" dated April 2015, and illustrated in Drawing No. 6509-618-210-202-001: Typical Sections for OP1, OP2 and OP3~~Ore Storage Management Plan;

"**Progressive Reclamation**" means actions that can be taken during mining ~~o~~Operations before permanent closure, to take advantage of cost and operating efficiencies by using the resources available from mine ~~o~~Operations to reduce the overall reclamation costs incurred. It enhances environmental protection and shortens the timeframe for achieving the reclamation objectives and goals;

Commented [KJ25]: KIA Comment: The Term "Plan" is used throughout the license, and should be defined in the Definitions. KIA proposes the following definition:

"Plans" include initial design plans submitted by the Licensee, which include objectives, methods, contingencies, roles and responsibilities, monitoring and mitigation and which may be subsumed and replaced by operational management plans based on design plans which are streamlined to better support the Licensee's obligations under the License and the Act, site operations and inspections

"**Project**" means the Meliadine Gold Project as outlined in the public registry for the Nunavut Impact Review Board (NIRB) File No. 11MN034 and for the Nunavut Water Board File No: 2AM-MEL1631, and 2BW-MEL1525 and 8BC-MEL1516 that are now amalgamated within File No: 2AM-MEL1631;

"**Quarry or Quarries**" means the area of surface excavation for extracting rock material for use as construction materials in the development of site infrastructure and facilities;

"**Quality Assurance / Quality Control (QA/QC)**" Quality Assurance means the system of activities designed to better ensure that quality control is done effectively; Quality Control means the use of established procedures to achieve standards of measurement for the three principle components of quality: precision, accuracy and reliability;

"Receiving Environment" means both the aquatic and terrestrial environments that receive any discharge resulting from the Project;

"**Reclaim Water**" means the water pumped from the Control Pond No.1 (CP1) or the Water Treatment Plan to the mill for reuse;

"**Reclamation**" means the process of returning a site to the pre-development or natural state, or a state that prevents environmental impacts or threats to human health and safety.

~~"**Recognized Closed Mine**" means a recognized closed mine as defined by section (1) of the *Metal Mining Effluent Regulations* (SOR/2002-222 dated June 6, 2002 and amended on March 2, 2012, and as may be further amended from time to time);~~

~~**"Reference Method EPS 1/RM/13"** means Biological Test Method: Reference Method for Determining Acute Lethality of Effluents to Rainbow Trout (Reference Method EPS 1/RM/13), July 1990, published by the Department of the Environment, as amended in December 2000, and as may be further amended from time to time;~~

"**Regulations**" means the *Nunavut Waters Regulations* (SOR/2013/669 18th April, 2013);

"**Seepage**" means any Water that drains through or escapes from any structure designed to contain, withhold, divert or retain Water or Waste. Seepage also includes any flows that have emerged through open pits, runoff from waste rock storage facilities, ore stockpile areas, quarries, landfill or landfarm areas;

"**Sewage**" means all toilet wastes ~~and greywater~~;

"**Sewage Treatment Plant**" means the ~~prefabricated (modular)~~ structure designed for the treatment of Sewage as indicated in the Water Management Plan~~Application documents entitled "*Type A Water Licence Main Application Document*" dated April 2015 and "*Water Management Plan*" dated April 2015~~;

"**~~Soil~~ Site Specific Water Quality ~~Remediation~~ Objectives (~~SOROs~~SSWQO)**" means ~~the~~ a numerical concentration established as a target value ~~for soil quality remediation for contaminated sites as determined with guidance provided by the *Canadian Council of Ministers of the Environment (CCME) Canada- Wide Standards for Petroleum Hydrocarbons (PHC) in Soil* (January 2008, and as may be further amended from time to time) and/or *Government of Nunavut, Environmental Guideline for Contaminated Site Remediation (March 2009)*.~~ which has been established for specified waters;

"**Sump**" means a structure or depression that collects, controls, and filters liquid waste before it is released to the environment. This structure should be designed to prevent erosion while allowing percolation of liquid waste;

"**Surface Drainage**" means contact Waters resulting from the flow over, through or out of an Operation area and is collected ~~by means of Engineered Structures~~ as described in the Water Management Plan~~document entitled "Water Management Plan" dated April 2015~~;

"**Tailings Storage Facility**" means the engineered facility designated as a Tailings Storage Facility to receive dry stack tailings as described in the Mine Waste Management Plan~~Application document entitled "*Mine Waste Management Plan*" dated April 2015, and illustrated in Design No. 6509-610-210-202: Typical Design Section for Dry Stack TSF~~;

"~~Tiriganiaq~~ Open Pit~~s 1 and 2~~" ~~means two of the Meliadine Gold~~ mine deposits to be developed using a traditional open-pit mining method and underground mining as described in the Mine Plan~~"*Type A Water Licence Main Application Document*" dated April 2015~~;

"**Total Metals**" means the suite of metals referred to in ~~Table 6.3 of the "*Type A Water Licence Main Application Document*" dated April 2015~~ the Water Management Plan, and in Group 2 of Table 1 – Monitoring Groups located in Schedule ~~I~~J of this Licence. Total metals shall be analyzed on an un-filtered sample;

"**Underground ~~Mine~~**" means ~~will use part of the existing decline built for advanced underground exploration and bulk sampling program. The decline will be extended and a new portal (Portal 2) will also be built closer to the mill as indicated in the "*Type A Water Licence Main Application Document*" dated April 2015, and illustrated in Drawing No. 6509-492-210- 001: Ramp Portal (#2), General Arrangement Arch Portail – Ramp 2 Concrete, Steel and Earth Work (provided in the Mine Plan);~~ the underground workings at the Project as described in the Mine Plan;

"**Undertaking**" means an undertaking in respect of which water is to be used or waste is to be deposited, of a type set out in Schedule I of the *Regulations*;

"**Use**" in relation to Waters, means Use as defined in S.4 of the Act;

"Waste" means, ~~as defined in S.4 of the *Act*, any substance that, by itself or in combination with other substances found in water, would have the effect of altering the quality of any Water to which the substance is added to an extent that is detrimental to its use by people or by any animal, fish or plant, or any Water that would have that effect because of the quantity or concentration of the substances contained in it or because it has been treated or changed, by heat or other means~~Waste

as defined in section 4 of the Act;

"**Waste Disposal Facilities**" means all site infrastructure designed ~~to contain waste on a temporary or permanent basis~~ for the disposal of waste including the Landfill, Incinerator, Landfarm, Sewage Treatment Plant, Ore Storage Facilities, and Waste Rock Storage Facilities;

"**Waste Rock**" means all rock materials, except ore and tailings, that are produced as a result of mining operations.;

"**Waste Rock Storage Facility**" means the engineered ~~facility designed for the storage of Waste Rock as indicated in the Application document entitled "*Mine Waste Management Plan*" dated April 2015, and illustrated in Drawings No. 6509-616-210-202-001, 6509-616-210-202-002 and 6509-616-210-202-003: Typical Section for Waste Rock Storage Facilities – WRSF 1, WRSF 2, and WRSF 3~~structure or structures designed for the placement of Waste Rock as described in the Mine Waste Management Plan;

"**Wastewater**" means the water generated by site activities or originates on-site that requires treatment or any other water management activity;

"**Water or Waters**" means water as defined in S.4 of the *Act*~~, inland waters, whether in a liquid or solid state, on or below the surface of the land~~;

"**Water Licence Application**" for the purposes of this Licence includes the totality of the NWB and NIRB Public Registries established as a result of the filing of the application dated March 8, 2010, replaced by the Application dated May 15, 2015 and the Amendment Application filed August 2020; and, including Supporting Documents, and Technical Meeting Information supplemental documents;

"**Water Supply Facilities**" means the Fresh Water Intake, the Reclaim Water system and associated infrastructure;

"**Water Treatment Plant (WTP)**" ~~an *Actiflo® from Veolia Water* system designed for the treatment of contact water from Collection Pond 1 (CP1) as indicated in the "*Type A Water Licence Main Application Document*" dated April 2015, and illustrated in Drawing GA100: Actiflo ACP-300R General Arrangement and Actiflo ACP-600R General Arrangement (provided in the Mine Plan);~~means the facilities designated for the treatment of water as described in the Water Management Plan;

"**Weekly**" means, in the context of monitoring frequency, one sampling event occurring every 7 days with a minimum of 5 days between sampling events.

Commented [KJ26]: KIA Comment: Add the following definition following "Weekly": ""Waterline" means the system of dual pipelines to be used to transport Effluent from the Project site and to Discharge such Effluent into Melvin Bay, if approved as proposed by the Licensee in Application No. 125515 to the Nunavut Impact Review Board."

Schedule B: General Conditions

The Annual Report referred to in Part B, Item 2, shall include:

CONSTRUCTION

1. For structures constructed to withhold Water or Waste:

    a. An overview of methods and frequency used to monitor deformations, Seepage and geothermal responses;
    b. A comparison of measured versus predicted performance;
    c. A discussion of any unanticipated observations including changes in risk and mitigation measures implemented to reduce risk;
    d. As-built drawings of all mitigation works undertaken;
    e. Any changes in the design and/or as-built condition and respective consequences of any changes to safety, water balance and water quality;
    f. Data collected from instrumentation used to monitor earthworks and an interpretation of that data;
    g. A summary of maintenance work undertaken as a result of settlement or deformation of dikes, dams and berms;
    h. The daily, monthly and annual flow volumes of any watercourse diverted during Construction activities and
    i. The daily, monthly and annual quantities of Seepage from dikes, dams and other structures in cubic metres.

WATER

2. Monthly and annual volume of fresh Water obtained from Meliadine Lake.
3. Monthly and annual volume of fresh Water transferred to Meliadine Lake as a result of dewatering activities.
4. Monthly and annual volume of fresh Water obtained from Meliadine River for road dust suppression activities.
5. Summary of reporting results for the Water Balance and Water Quality model as required in Part E Item~~s~~ 1~~41~~ ~~12~~.

WASTE

6. Geochemical monitoring results including:

    a. Operational acid/base accounting and paste pH test work used for waste rock designation (PAG and NPAG rock);
    b. As-built volumes of waste rock used in construction and sent to the Waste Rock Storage Facilities with estimated balance of acid generation to acid neutralization capacity in a given sample as well as metal toxicity;

Commented [KJ27]: KIA Comment: KIA submits that AEM be required to report on the implementation of the Adaptive Management Plan in the Annual Report. KIA proposes adding the following provision to Schedule B: "A summary of how the AMP has been implemented to prevent discharges to Meliadine Lake. Specific discussions should be provided for the three periods defined in the AMP: pre-freshet, open-water, and pre-freeze. Each discussion should include the available storage volume for both saline and fresh water, the volume of both saline and fresh water transported via the waterline to Melvin Bay, if approved, and the volume of water discharged to Meliadine Lake."

c. All monitoring data with respect to geochemical analyses on site and related to roads and quarries;
d. Leaching observations and tests on pit slope and dike exposure;
e. Any geochemical outcomes or observations that could imply or lead to environmental impact;
f. Geochemical data associated with tailings, cyanide leach residue, and bleed from the cyanide destruction process including an interpretation of the data; and
g. Results related to the Borrow pits/ Quarries and roads, including the All-weather Access Road.

7. An update on the current capacity of the Tailings Storage Facility.
8. Summary of quantities and analysis of Seepage and runoff monitoring from the Landfill, Landfarm, Waste Rock Storage Facilities, Borrow pits and Quarries.
9. A summary report of all general waste disposal activities including monthly and annual quantities in cubic metres of waste generated and locations of disposal.
10. Report of Incinerator test results including the materials burned and the efficiency of the Incinerator as they relate to Water and the deposit of Waste into Water.

SPILLS

11. A list and description of all unauthorized discharges including volumes, spill report line identification number and summaries of follow-up action taken.

MODIFICATIONS

12. A summary of modifications and/or major maintenance work carried out on all Water and waste related structures and facilities.

MONITORING

13. The results and interpretation of the Monitoring Program in accordance with Part D and Part I and Schedule I.
14. The results of monitoring related to the Environmental Management and Protection including:

a. Aquatic Effects Monitoring Program;
b. Metal and Diamond Mining Effluent Regulation (MDMER) Monitoring;
c. Mine site Water quality monitoring, including groundwater monitoring; and
d. Visual AWAR Water quality monitoring.

CLOSURE

15. A summary of any progressive closure and reclamation work undertaken including photographic records of site conditions before and after completion of operations, and an outline of any work anticipated for the next year, including any changes to implementation and scheduling.

16. A summary of on-going field trials to determine effective capping thickness for the Tailings Storage Facility and Waste Rock Storage Facilities for the purpose of long term environmental protection.
17. An updated estimate of the current restoration liability based on Project development monitoring, results of restoration research and any changes or modifications to the Appurtenant Undertaking.

PLANS/REPORTS/STUDIES

18. A summary of any studies requested by the Board that relate to Water use, Waste disposal or Reclamation, and a brief description of any future studies planned.
19. Where applicable, revisions as Addendums, with an indication of where changes have been made, for Plans, Reports, and Manuals.
20. An executive summary in English and Inuktitut of all updated plans, reports, or studies conducted under this Licence.

GENERAL

21. A summary of actions taken to address concerns or deficiencies listed in the inspection reports and/or compliance reports filed by an Inspector.

OTHER

22. A summary of public consultation and participation with local organizations and the residents of the nearby communities, including a schedule of upcoming community events and information sessions.
23. Any other details on Water use or Waste disposal requested by the Board by November 1st of the year being reported.

Schedule D: Conditions Applying to Construction

1. The Construction Summary Report referred to in Part D Item 3 shall include:

   a All final design and construction drawings shall be stamped and signed by an ~~Professional~~ Engineer.
   b Site specific data and analysis, including Geochemical analysis of waste rocks and fills, demonstrating their Non Acid Rock Drainage and Non Metal Leaching characteristics, to support the design and management decisions
   c A summary of construction activities including photographic records before, during and after construction;
   d As-built drawings:
   e Documentation of field decisions that deviate from original plans and any data used to support these decisions;
   f Discussion of mitigation measures implemented during construction and effectiveness;
   g Construction monitoring summary including Monitoring undertaken in accordance with Part D;
   h Blast vibration monitoring for activities carried out in close proximity to fish bearing waters;
   i Monitoring for sediment release from construction areas; and
   j Monitoring and reporting on use of water to manage dust emissions from crushing and construction activity.

Schedule I: Conditions Applying to General and Aquatic Effects Monitoring

1. The Annual Geotechnical Inspection referred to in Part I Item 14 shall include:

a. Dikes;
b. Berms;
c. Collection Ponds;
d. Channels;
e. Jetties;
f. Water Intake causeway;
g. All Weather Access Road (AWAR) and site roads, in particular bridges and culverts;
h. Sumps;
i. Industrial Pads;
g. Open Pits;
k. Ore Stockpiles;
l. Underground portals;
m. Tailings Storage Facility;
n. Waste Rock Storage Facilities;
o. Landfill;
p. Landfarm;
q. Fuel Storage and Containment Facilities at Meliadine site and Itivia site;
r. Geotechnical instrumentation and associated monitoring data; and
s. A description of geophysical and permafrost conditions at the project site.

TABLE 1 – MONITORING GROUP

Group	Parameters
1	pH, turbidity, hardness, total alkalinity, sodium, magnesium, potassium, calcium, fluoride, silicate, chloride, fluoride, sulphate, total dissolved solids (TDS; calculated[(a,b)]), total suspended solids (TSS), total cyanide, ammonia nitrogen, nitrate, nitrite, phosphorus, orthophosphate, Total Metals (aluminum, arsenic, barium, cadmium, chromium, copper, iron, lead, manganese, mercury,
2	**Total and Dissolved Metals**: aluminum, antimony, arsenic, barium, beryllium, boron, cadmium, chromium, copper, iron, lead, lithium, manganese, mercury, molybdenum, nickel, selenium, silver, strontium, thallium, tin, titanium, uranium, vanadium, and zinc. **Nutrients**: ammonia-nitrogen, total Kjeldahl nitrogen, nitrate-nitrogen, nitrite-nitrogen, orthophosphate, total phosphorus, total organic carbon, dissolved organic carbon, and reactive silica. **Conventional Parameters**: bicarbonate alkalinity, chloride, carbonate alkalinity, turbidity, conductivity, hardness, calcium, potassium, magnesium, sodium, sulphate, pH, total alkalinity, TDS (calculated[(a,b)]), TSS, total cyanide, free cyanide, and weak acid dissociable (WAD) cyanide.
3	**MDMER parameters**: total cyanide, arsenic, copper, lead, nickel, zinc, radium- 226, TSS, pH, sulphate, turbidity, and aluminum. **MDMER additional requirements**: Effluent volumes and flow rate of discharge, Acutely Lethality tests ~~(Rainbow Trout and Daphnia magna)~~ and environmental effects monitoring (EEM).
4	Total arsenic, total copper, total lead, total nickel, TSS, ammonia, benzene, toluene, ethylbenzene, xylene, total petroleum hydrocarbons (TPH), and pH.
Full Suite	Group 2, TPH, and turbidity.
Flow	Flow data-logger.
Field measurements	Field pH, specific conductivity, dissolved oxygen, and temperature.

MDMER - Metal and Diamond Mining Effluent Regulations (SOR/2002-222).

[(a)] Standard Methods (Method 1030E, APHA 2012[1]

[(b)] TDSCalc (mg/L) = (0.6 x Total Alkalinity as $CaCO_3$) + Sodium + Magnesium + Potassium + Calcium + Sulfate + Chloride + Nitrate + Fluoride + Silicate

Where: Nitrate is the NO_3^- anion (multiply nitrate as nitrogen result by 4.427); Silicate is the SiO_3^{2-} anion (multiply reactive silica as SiO_2 result by 1.266)

[1] APHA ((American Public Health Association). 2012. Standard Methods for the Examination of Water and Wastewater, 22nd Edition, with updates to 2015. Washington, DC, USA.

TABLE 2 – MONITORING PROGRAM

Station	Description	Phase	Monitoring Parameters	Frequency
MEL-D-1 to TBD	Dewatering: Water transferred from lakes to Meliadine Lake during dewatering of lakes	Construction	As defined in the Water Management Plan referred to in Part D, Item 12	Prior to discharge and Weekly during discharge
			Volume (m3)	Daily during periods of discharge
MEL-SR-1-TBD	Surface Runoff – runoff downstream of Construction areas at Meliadine Site and Itivia Site, Seeps in contact with the roads, earthworks and any Runoff and/or discharge from borrow pits and quarries	Construction, and Operations	As defined in the Water Management Plan referred to in Part D, Item 18 and Part I, Item 11	Prior to Construction, Weekly during Construction
			Group 1	Monthly during open water or when water is present upon completion
MEL-~~01~~ 11 ~~(MEL-04 suggested by AEM in the Application)~~	Water intake from Meliadine Lake	Construction, Operation, and Closure	Full Suite	Monthly during
			Volume (m^3)	Daily during periods of intake
*MEL-~~0~~1*2	*Water treatment plant (pre- treatment) coming from CP1, off the pipe and not in the pond*	*Construction (prior to release), Operations, and Closure*	*Group 1*	*Monthly during periods of discharge*
MEL-~~0~~13[a] (and AEMP Stations)	Mixing zone in Meliadine Lake, Station 1; and MDMER exposure stations for final discharge point within mixing zone	Construction (prior to release), Operations, and Closure	Full Suite, Group 3 (MDMER)	Monthly during periods of discharge
MEL-104[a] ~~(MEL-01suggested by AEM in the Application)~~	Water treatment plant from CP-1 (post-treatment), end of pipe (before offsite release) in the plant before release.	Construction (upon effluent release), Operations, and Closure	Full Suite, Group 3	Prior to discharge and Weekly during discharge
			Volume (m^3)	Daily during periods of discharge
			Acute Lethality	Once prior to discharge and Monthly thereafter
MEL-~~0~~15	*Local Lake E-3*	*Operations, and Closure*	*Group 2*	*Bi-annually during open water*

Station	Description	Phase	Monitoring Parameters	Frequency
*MEL-~~0~~1*6	*Local Lake G2*	*Construction, Operations, and Closure*	*Group 2*	*Bi-annually during open water*
*MEL-~~0~~1*7	*Local Pond H1*	*Construction, Operations, and Closure*	*Group 2*	*Bi-annually during open water*
*MEL-~~0~~1*8	*Local Lake B5*	*Construction, Operations, and Closure*	*Group 2*	*Bi-annually during open water*
*MEL-~~0~~1*9	*CP-2, Collection of drainage from WRSF3~~Collection of natural catchment drainage from the outer berm slopes of the Landfarm and industrial pad~~*	*Construction, Operations, and Closure*	*Group 1*	*Monthly during open water or when Water is present*
*MEL-~~1~~2*0	*CP-3, Collection of drainage from dry stacked tailings*	*Operations, and Closure*	*Group 1*	*Monthly during open water or when water is present*
*MEL-~~1~~2*1	*CP-4, Collection of drainage from WRSF1*	*Operations, and Closure*	*Group 1*	*Monthly during open water or when water is present*
*MEL-~~1~~2*2	*CP-5, Collection of drainage from WRSF1 and WRSF2*	*Construction, Operations, and Closure*	*Group 1*	*Monthly during open water or when water is present*
*MEL-~~1~~2*3	*CP-6, Collection of drainage from WRSF3*	*Construction, Operations, and Closure*	*Group 1*	*Monthly during open water or when water is present*
*MEL-~~1~~2*4	*Seepage from the Landfill between the landfill and Pond H3*	*Construction, Operations, and Closure*	*Group 1*	*Monthly during open water or when water is present*
MEL-~~1~~2*5*	Secondary containment area at the Itivia Site Fuel Storage and Containment Facility	Construction, Operation, Closure	Group 4, Volume (m^3)	Prior to discharge or transfer of Effluent

Monitoring Legend: Green - Regulated; Blue - General Aquatic; Red - Verification

Regulated Monitoring occurs at Monitoring Program Stations in licences or regulations. It includes

General Aquatic Monitoring is subject to compliance assessment to confirm sampling is carried out using

Verification Monitoring Program to be carried out for operational and management purposes by

Notes: as per Metal Diamond Mining Effluent Regulations (MDMER), samples for Effluent characterization and Receiving Environment must be collected quarterly or at least one month apart while Effluent is being deposited.

[a] Sampling may not occur during break-up (June)

CP - Collection Pond;

WRSF - Waste Rock Storage Facility.