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NUNAVUT WATER BOARD
NUNAVUT IMALIRIYIN KATIMAYINGI
OFFICE DES EAUX DU NUNAVUT

File No: 2BB-MEA1828

May 19, 2020

Jamie Quesnel
Agnico Eagle Mines Limited
145 King Street East, Suite 400
Toronto, Ontario M5C 2Y7

Email: jamie.quesnel@agnicoeagle.com

RE: NWB Amendment Water Licence No: 2BB-MEA1828

Dear Jamie Quesnel:

Please find attached Licence No: 2BB-MEA1828 (Licence) issued to Agnico Eagle Mines Limited by the Nunavut Water Board (NWB or Board) pursuant to its authority under Article 13 of the *Agreement between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in Right of Canada (Nunavut Agreement)*. The terms and conditions of the attached Licence related to the use of Water and the deposit of Waste are an integral part of this approval.

If the Licensee contemplates the continuing of this Undertaking after the Water Licence expires, it is the responsibility of the Licensee to apply to the NWB for a renewal water licence. The past performance of the Licensee, new documentation and information, and issues raised during a public hearing, if the NWB is required to hold one, will be used to determine the terms and conditions of the renewal Water Licence. Note that if the Licence expires before the NWB issues a new one, then the use of Water and the deposit of Waste must cease, or the Licensee may be in contravention of the *Nunavut Agreement* and the *Nunavut Waters and Nunavut Surface Rights Tribunal Act (NWNSRTA)*. However, the expiry or cancellation of a licence does not relieve the holder from any obligations imposed by the licence. The NWB recommends that an application for the renewal of this Licence be filed at least **three (3) months** prior to the Licence expiry date. It should be noted that in accordance with s. 75(1)(a) of the *Nunavut Planning and Project Assessment Act (NuPPAA)*, the Board is not allowed to issue a permit or authorization for any project proposal that has not been submitted to the Nunavut Planning Commission (NPC) in accordance with s. 76 of *NuPPAA*.

If the Licensee contemplates or requires an amendment to this licence, the NWB may decide, in the public's interest, to hold a public hearing. The Licensee should submit applications for amendment as soon as possible to give the NWB sufficient time to go through the amendment process. The process and timing may vary depending on the scope of the amendment, however, a minimum of **sixty (60) days** is required from time of acceptance by the NWB. It is the responsibility of the Licensee to ensure that all application materials have been received and are

acknowledged by the Manager of Licensing.

Sincerely,

Lootie Toomasie
Nunavut Water Board,
Chair

LT/ak/rqd

Enclosure: Amendment Licence No: 2BB-MEA1828

Cc: Distribution List –Kivalliq

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DECISION

LICENCE NUMBER: 2BB-MEA1828

This is the decision of the Nunavut Water Board (NWB) with respect to an application dated May 16, 2019 for an amendment of a Water Licence made by:

AGNICO EAGLE MINES LIMITED

to allow for the use of Water and the deposit of Waste during camp operation, treatment and disposal of greywater and sewage, fuel storage, environmental baseline data collection, prospecting, geological mapping, geophysical surveys, diamond and reverse circulation drilling, bulk sampling, construction of pads, water crossings' installations, trenching, and quarrying at the Meadowbank Advanced Exploration Project located within the Kivalliq Region, Nunavut, generally located at the geographical coordinates as follows:

Project Extents:

Latitude: 65° 35' N	Longitude: 97° 40' W
Latitude: 65° 35' N	Longitude: 94° 30' W
Latitude: 64° 30' N	Longitude: 94° 30' W
Latitude: 64° 30' N	Longitude: 97° 40' W

Camp Location(s):

Latitude: 65° 24' 56" N	Longitude: 96° 37' 48" W
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DECISION

After having been satisfied that the Application is for a proposal that is in conformity¹ with the Keewatin Regional Land Use Plan and a review is required subject to the terms and conditions recommended by the Nunavut Impact Review Board's Screening Decision Report² in accordance with Article 12 of the Nunavut Agreement and s.88, 92(1) and 92(2)(a) of Nunavut Planning and Project Assessment Act (*NuPPAA*), the NWB decided that the application could proceed through the regulatory process. In accordance with s. 55.1 of the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* (*NWNSRTA* or *Act*) and Article 13 of the *Nunavut Agreement*, public notice of the Application was given and interested persons were invited to make representations to the NWB.

After reviewing the submission of the Applicant and considering the representations made by interested persons, the NWB, having given due regard to the facts and circumstances, the merits of the submissions made to it and to the purpose, scope and intent of the *Nunavut Agreement* and of the *Act*, waived the requirement to hold a public hearing, and determined that:

Water Licence No: 2BB-MEA1828 be amended and issued subject to the terms and conditions contained therein. (Motion #: 2020-B1-007)

¹ Nunavut Planning Commission (NPC), October 16, 2018.

² Nunavut Impact Review Board (NIRB), October 19, 2018.

Signed this 19th day of May, 2020 at Gjoa Haven, NU.

Lootie Toomasie
Nunavut Water Board,
Chair

LT/ak/rqd

WATER LICENCE No: 2BB-MEA1828

I. BACKGROUND

The water licence amendment application (Application) being considered by the Nunavut Water Board (NWB or Board) was filed by Agnico Eagle Mines Limited (the Applicant, the Licensee or Agnico Eagle) on May 16, 2019 to seek amendments to Type “B” Water Licence No: 2BB-MEA1828 (Licence). The scope of the proposed amendments to Water Licence No: 2BB-MEA1828 included transferring the following activities from the scope of the Type “B” Licence to be included within the scope of amended Type “A” Water Licence No: 2AM-WTP1826:

- underground development and underground exploration drilling;
- construction and operation of pads and handling and storage of Waste Rock and ore on pads; and
- operation of Storm-water Management Pond A-P5 (with its subsequent conversion to Groundwater Storage Pond GSP-1).

II. FILE PROCEDURAL HISTORY

On June 22, 1998, a new Water Licence NWB2MEA9899 was issued by Nunavut Water Board (NWB or Board) to Cumberland Resources Ltd. (Cumberland) to allow Cumberland for the use of up to 100m³/day of water and disposal of waste associated with Meadowbank exploration drilling. After amendments on June 30 and August 5, 1999, the licence was renewed on May 2, 2000 as Water Licence NWB2MEA0002 and renewed again on May 1, 2002, as Water Licence NWB2MEA0204. This licence was amended on July 14, 2003, and renewed as Water Licence NWB2MEA0507 on April 21, 2005.

On August 1, 2007, Cumberland amalgamated with Meadowbank Mining Corporation to continue as one corporation: Agnico Eagle Mines Limited. On February 13, 2008, the renewal Water Licence 2BE-MEA0813 was issued to Agnico Eagle Mines Limited (Agnico Eagle or Licensee or Applicant) to allow for the use of up to 215m³/day of water and disposal of waste associated with Meadowbank Exploration Project. An amendment was granted by NWB on July 2, 2008, and another amendment was granted on November 9, 2011.

On March 7, 2013 the licence was renewed as Water Licence 2BE-MEA1318 with an expiry date set at March 6, 2018, to allow for the use of up to 269m³/day of water and disposal of waste associated with Meadowbank Exploration Project. Activities included camp operation, fuel storage, mineral exploration - prospecting, geological mapping, geophysical surveys, diamond drilling, baseline data collection, trenching. Amendment 1 was issued on July 31, 2014 to allow Agnico Eagle to enclose additional exploration area and to install and operate a new exploration camp (IVR Camp). Amendment 2 was issued on February 27, 2015 to allow for the increase of water use for drilling purposes, installation and operation of a Wastewater Treatment System “Bionest” at Amaruq (IVR) Camp, development and operation of quarries for camp construction activities, construction of a gravel road between camp and quarries, and extension of exploration boundaries. Amendment 3 to the licence was granted by NWB on January 27, 2016, to allow Licensee for diamond drilling on two lakes based on barge, water use global authorization for

domestic and drilling purposes, installation and operation of additional Kodiak “BIONEST Kodiak” Wastewater Treatment System, installation of additional double wall fuel and gas tanks, and increase of Amaruq (IVR) Camp capacity with additional accommodations. On December 1, 2016, the NWB granted Amendment 4 to allow for the use of water (299m³/day) and deposit of waste during camp operations and activities during mineral exploration activities consisting of prospecting, geological mapping, geophysical surveys, diamond and reverse circulation drilling, trenching and quarrying, bulk sampling, water crossings installation during road construction, operation of Storm-water Management Pond, development/construction of portal/ramp, services and operations pads, storage of waste rock and ore on pads, fuel storage, laydown/garage/office/warehouse area for the rump at Amaruq (IVR) Camp at the Meadowbank Advanced Exploration Project. With Amendment 4, the licence was renamed as Water Licence 2BB-MEA1318.

On December 13, 2017, the NWB received an application for the renewal of Water Licence 2BB-MEA1318. The Board issued renewal Water Licence 2BB-MEA1828 on February 7, 2018, which was set to expire on March 6, 2028.

On November 13, 2019, AEM submitted to the Board an amendment application to allow for the relocation of the existing Amaruq exploration camp. The Board issued the amendment on March 26, 2020 authorizing the Licensee to relocate the camp. The amendment also prescribed a submission of an updated plan entitled “*Amaruq and GOT Exploration Projects Spill Contingency Plan*” dated August 2019 in order to reflect the Applicant’s commitments made during the licensing process at the time.

III. RENEWAL APPLICATION

On October 16, 2018, the Nunavut Planning Commission (NPC) determined that the Whale Tail Pit Expansion Project Proposal (the Expansion Proposal) conformed to the Keewatin Regional Land Use Plan. In the NPC’s positive conformity determination, the NPC concluded that the Expansion Proposal represented a significant modification to the approved Whale Tail Pit Project (NIRB File No: 16MN056) because it would involve activities and components that were not part of the original Whale Tail Pit Project, or the original Meadowbank Gold Mine Project (as amended to reflect the approved Vault Pit Amendment and the approved Whale Tail Pit Project). On this basis, NPC referred the Project to the Nunavut Impact Review Board (NIRB) for assessment under Article 12, Section 12.4.3 of the *Agreement between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in right of Canada (Nunavut Agreement)* and the *Nunavut Planning and Project Assessment Act*¹ (NuPPAA).

The Application was submitted to the Board along with amendment applications to the Type “A” Water Licences Nos: 2AM-WTP1826 and 2AM-MEA1526² on May 16, 2019 and was an integral part of the Type “A” licensing process for the Whale Tail Pit Expansion Project Proposal. On March 27, 2020, the Board issued amended Water Licences Nos: 2AM-WTP1830 and 2AM-MEA1530, which were approved by the Minister of Northern Affairs (Minister) on May 12, 2020.

¹ S.C. 2013, c. 14, s. 2.

² Nunavut Water Board, Water Licence Nos: 2AM-WTP1830 and 2AM-MEA1530 Reasons for Decision Including Record of Proceedings dated March 27, 2020.

Thus, the Type “A” licensing process was completed.

Due to the fact that the Application was considered as an integral part of the licensing process for the Type “A” licence amendments, the Board had to ensure that the ministerial approval of amended Water Licences Nos: 2AM-WTP1830 and 2AM-MEA1530 was obtained before proceeding with the issuance of the amended Type “B” Water Licence.

IV. GENERAL CONSIDERATIONS

In accordance with the *Nunavut Waters and Nunavut Surface Rights Tribunal Act (NWNSRTA)* s. 45, the NWB may issue a licence for a term not exceeding twenty-five years. The Applicant did not request extending the term of the Licence, and the NWB left the expiry date unchanged.

A. Scope, Definitions and Enforcement

Scope

The Applicant requested that underground development, underground exploration drilling, and handling and storage of waste rock and ore on pads be removed from the scope of the Licence. The Licence allows for the use of Water and deposit of Waste in support of a Mining Undertaking.

Enforcement

To ensure that the Licensee complies with the terms and conditions of the Licence, inspectors designated and empowered by the Minister may inspect or examine works, activities, and undertakings associated with the use of waters and/or the deposit of waste for the purposes of exercising their powers in accordance with the *NWNSRTA*.³

Compliance

Agnico Eagle should note that compliance with the terms and conditions of this Licence does not necessarily absolve the Licensee from the responsibility to comply with all other applicable legislation, guidelines, and directives.

B. General Conditions

Part B of the Licence addresses the general terms and conditions that apply to the Undertaking, such as annual report submission, protocols for handling documents related to the Licence, posting of signage at sites associated with the undertaking, and more.

In addition, the Board included a condition under Part B requiring the Licensee to furnish and maintain reclamation security in the amount of one million two hundred thousand six hundred and fifty dollars (\$1,200,650) in the form that is satisfactory to the Minister within thirty (30) days from the date of issuance of the licence. During the Public Hearing for Type “A” Water Licences Nos: 2AM-WTP1830 and 2AM-MEA1530, Agnico Eagle provided the following summary of the agreement the parties had reached with respect to updates to the security that should be held under the licences as amended to reflect the Whale Tail Pit Expansion Project

³ Sections 85-88 of the *NWNSRTA*.

Proposal:

So as we discussed just earlier, the approved Whale Tail Project for the Water Licence A, we have an existing letter of credit that is split 50 percent between Kivalliq Inuit Association and Crown-Indigenous Relations and Northern Affairs for \$26,286,000. Now, with the expansion project, we have agreement on the security for the Water Licence A for \$50,663,508, and related to the changes in the Type "B" licence that we referenced earlier, the security would be \$1,200,650.

And based on the 50 percent split between Kivalliq Inuit Association and Crown-Indigenous Relations Northern Affairs, that's all part of the security management agreement.⁴

C. Conditions Applying to Water Use

Water use shall not exceed two hundred and ninety-nine (299) cubic metres per day and shall be obtained from the unnamed lake located in the proximity of the camp for domestic purposes and from the sources proximal to drilling targets for drilling and industrial purposes.

The Board reminds the Licensee of the commitments made during the licence amendment process that was finalized with the issuance of an amendment on March 26, 2020. The commitments included adhering to DFO's *Interim Code of Practice: End-Of-Pipe Fish Protection Screens for Small Water Intakes in Freshwater*.

D. Conditions Applying to Waste Disposal

With the issuance of this Licence, the Board has approved the Plan entitled "Waste Management Plan" dated July 26, 2017; however, the Licensee is required to update the Plan in order to reflect the current operations and altered location of the camp.

In regards to Effluent Discharge, the NWB recognizes that there are several Effluent streams on-site. Firstly, there is the Wastewater Treatment System (WWTS) Effluent resulting from the treatment of Sewage, and the Board set quality limits for its Discharge. The sludge from the WWTS is to be disposed in latrine pits. Next, the Water accumulated in trenches is to be collected in a Trench Water Containment to allow for sampling for compliance to quality limits prior to release. Additionally, the Board set quality limits for Effluent discharged from the Fuel Storage Facility at the Monitoring Program Station MEA-3.

E. Conditions Applying for Camps, Access Infrastructures and Operations

Camp use is authorized under this Licence.

⁴ J. Quesnel, NWB Public Hearing, File No. 2AM-WTP1826, 2AM-MEA1526 and 2BB-MEA1828, Transcript, February 13, 2020, Volume 1, p. 108, lines 10-22.

In the original licence, the Applicant was required to submit an Acid Rock Drainage and Metal Leaching (ARD-ML) Characterization Plan for Amaruq Site. The Board did not reiterate this requirement in this amended Licence, as the NWB understands that the Plan entitled “Operational ARD-ML Sampling and Testing Plan – Whale Tail Pit Expansion Project” dated April 2019 was approved under Water Licence No: 2AM-WTP1830. The Board acknowledges that this Plan is applicable to this Licence, thus, the Licensee shall adhere to the Plan for its operations at the Meadowbank Advanced Exploration Project.

In addition, in Part E of the Licence, the Board has approved the Plan entitled “Quarrying Management Plan KVCA15Q01 Eskers 7 and 7B, Quarry 1” dated August 2017 that was submitted with the 2017 Annual Report; however, the Licensee is required to update the Plan to reflect the current operations at the Meadowbank Advanced Exploration Project.

F. Conditions Applying to Drilling Operations and Trenching

Drilling activities are permitted on land and on-ice. Provisions are to be included to mitigate impacts that the on-ice drilling activity could have on water quality.

G. Conditions Applying to Modifications

The Applicant is required to obtain permission from the NWB for modifications that do not meet the definition of modifications or the criteria of Part G, Item 1 of the Licence. Without written consent from the NWB, the Licensee is not allowed to carry out any modifications. Changes that do not meet the definition of a Modification under the Licence or the requirements of Part G may be considered amendments to the Licence.

H. Conditions Applying to Spill Contingency Planning

During the public review of the application for amendment that was issued on March 26, 2020, the KIA requested a number of changes to the *Amaruq and GOT Exploration Projects Spill Contingency Plan* dated August 2019 and submitted by Agnico Eagle in relation to mines naming, fuel storage at the camp, emergency contact information, and the provision of MSDS. The Applicant committed to updating the management plan. Therefore, in the amendment issued on March 26, 2020, the Board required Agnico Eagle to provide the updated *Amaruq and GOT Exploration Projects Spill Contingency Plan* dated August 2019. As the Plan had not yet been submitted at the time of this Licence issuance, the Board reminds the Licensee of the requirement.

I. Conditions Applying to Closure and Reclamation or Temporary Closure

The Licensee shall complete all restoration work prior to the expiry of this Licence. The Board has previously approved the Plan entitled “Conceptual Closure and Reclamation Plan & Reclaim Estimate” updated March 2016; however, the Licensee is required to update the Plan in order to reflect the current operations at the Project.

J. Conditions Applying to the Monitoring Program

The Licensee shall record all sources and quantities of water used for all purposes. The Licensee shall record all locations where any type of waste is disposed.

The Board removed Monitoring Program Station MEA-4 from the Licence, as the operation of Storm-water Pond AP-5 was transferred under Water Licence No: 2AM-WTP1830. In addition to monitoring required at the Monitoring Program Stations, provisions were included for the monitoring of water quality prior to and after on-ice drilling, runoff and/or discharge from the quarry sites to receiving environment, during periods of flow and just after a major rainfall event, and immediately upstream and downstream of the water crossings, any significant water seeps in contact with the road and any flows originating from borrow pits or rock quarries on a monthly basis prior to construction, during the construction and upon completion. The Licensee is required to review the Plan entitled "Quality Assurance/Quality Control Plan" dated January 2017 and modify it as necessary. Proposed changes of the Plan shall be submitted to an accredited laboratory for approval.



NUNAVUT WATER BOARD AMENDMENT WATER LICENCE

Licence No: 2BB-MEA1828

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)

C.P. 87, 765 CH. DE LA MINE GOLDEX, VAL-D'OR QUEBEC J9P 4N9

(Mailing Address)

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

Licence Number/Type: **2BB-MEA1828 / TYPE "B"**

Water Management Area: **THELON / BAKER LAKE / QUOICH / BACK / WATERSHEDS (5 / 8 / 9 / 31)**

Location: **MEADOWBANK ADVANCED EXPLORATION PROJECT - KIVALLIQ REGION, NUNAVUT**

Classification: **MINING UNDERTAKING**

Purpose: **DIRECT USE OF WATER AND DEPOSIT OF WASTE**

Quantity of Water use not to Exceed: **TWO HUNDRED AND NINETY-NINE (299) CUBIC METRES PER DAY**

Date of Licence Issuance: **MARCH 7, 2018**

Expiry of Licence: **MARCH 6, 2028**

This amended Licence, issued and recorded at Gjoa Haven, Nunavut, includes and is subject to the annexed conditions.

Lootie Toomasie
Nunavut Water Board, Chair

PART A: SCOPE, DEFINITIONS AND ENFORCEMENT

1. Scope

This Licence allows for the use of Water and the deposit of Waste for a Mining undertaking classified as per Schedule 1 of the *Regulations* at the Meadowbank Advanced Exploration Project, located approximately 70-125 km north of the Hamlet of Baker Lake within the Kivalliq Region, Nunavut. Activities associated with the project include camp operation, treatment and disposal of greywater and sewage, fuel storage, environmental baseline data collection, prospecting, geological mapping, geophysical surveys, diamond and reverse circulation drilling, bulk sampling, construction of pads, water crossings' installations, trenching and quarrying.

- a. This Licence is issued subject to the conditions contained herein with respect to the taking of Water 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 *Regulations* are made or existing *Regulations* are amended by the Governor in Council under the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*, or other statutes imposing more stringent conditions relating to the quantity or type of Waste that may be so deposited or under which any such Waste may be so deposited, this Licence shall be deemed, upon promulgation of such *Regulations*, to be subject to such requirements; and
- b. Compliance with the terms and conditions of this Licence does not absolve the Licensee from responsibility for compliance with the requirements of all applicable Federal, Territorial and Municipal legislation.

2. Definitions

“Act” means the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*;

“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;

“Amendment” means a change to original terms and conditions of this Licence requiring correction, addition or deletion of specific terms and conditions of the Licence; modifications inconsistent with the terms of the set terms and conditions of the Licence;

“Applicant” means the Licensee;

“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;

“Board” means the Nunavut Water Board established under the *Nunavut Agreement* and the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*;

“**Borrow Pits**” means sites for which materials, such as gravel or sand, are excavated for the purposes of constructing site infrastructure and facilities;

“**Closure and Reclamation Plan**” means a Plan developed to reach the closure goal and taking into account the “Guidelines for the Closure and Reclamation of Advanced Mineral Exploration and Mine Sites in the Northwest Territories” 2013;

“**Effluent**” means treated or untreated liquid Waste material that is discharged into the environment from a structure such as a settling pond, landfarm or a treatment plant;

“**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*;

“**Fuel Storage Facility**” means the fuel storage facility as described in the Application for Amendment and supporting documents dated November 13, 2019;

“**Greywater**” means all liquid Wastes from showers, baths, sinks, kitchens and domestic washing facilities, but does not include toilet Wastes;

“**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);

“**ICP Scan**” means the laboratory method for determining trace metals in water through Emission Spectroscopy using inductively coupled plasma (including from approximately 22 to 32 elements, depending on the laboratory performing the analysis);

“**Inspector**” means an Inspector designated by the Minister under Section 85 (1) of the *Act*;

“**Licensee**” means the holder of this Licence;

“**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, but does not include an expansion;

“**Minister**” means the minister of Northern Affairs;

“**Nunavut Agreement**” 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;

“**Quarry or Quarries**” means the areas of surface excavation for extracting rock material for use as construction materials in the development of infrastructure and facilities for the Meadowbank Advanced Exploration Project;

“Regulations” means the *Nunavut Waters Regulations* SOR/2013-69 18th April, 2013;

“Secondary Containment” means an impermeable structure, external to and separate from primary containment, which prevents unplanned spills of hazardous materials and provides a minimum capacity of 110% of the original vessel. Where multiple vessels are stored within the containment, it must provide a minimum capacity equal to the sum of the largest vessel and 10% of the aggregate volume of all other vessels located in the containment. This structure shall also provide containment and control of hoses and nozzles;

“Sewage” means all Toilet Wastes and Greywater;

“Spill Contingency Plan” means a Plan developed to deal with unforeseen petroleum and hazardous materials events that may occur during the operations conducted under the Licence;

“Sump or Sumps” 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;

“Toilet Wastes” means all human excreta and associated products, but does not include greywater;

“Trench Water Containment” means the lined sump or sumps, poly tank or other means of containment for water that has collected within the blasted and excavated trench(s) and subsequently removed for disposal upon confirmation of water quality;

“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;

“Wastewater Treatment System (WWTS)” means the wastewater treatment system as described in the Application for Renewal and supporting documents dated December 13, 2017;

“Water” or “Waters” means waters as defined in section 4 of the *Act*;

“Water Supply Facilities” means the Fresh Water Intake and associated infrastructure as described in the Amendment Application, Application for Renewal and supporting documents dated March 31, 2016, and December 13, 2017, respectively.

3. **Enforcement**

- a. Failure to comply with this Licence will 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*; and
- c. For the purpose of enforcing this Licence and with respect to the use of water and deposit or discharge 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 law.

PART B: GENERAL CONDITIONS

1. The Licensee shall maintain security with the Minister in the form in accordance with the Regulations, or that is satisfactory to the Minister in the amount of one million two hundred thousand six hundred and fifty dollars (\$1,200,650) within thirty (30) days from the date of issuance of the Licence.
2. The Licensee shall furnish and maintain such further or other amounts of security as may be required by the Board based on annual estimates of current Meadowbank Advanced Exploration Project restoration liability using the current version of RECLAIM, its equivalent or other similar method approved by the Board, in accordance with the principles of INAC's "Mine Site Reclamation Policy for Nunavut" (2002).
3. The Licensee may submit to the Board for approval a written request for a reduction to the amount of security. The submission shall include supporting evidence to justify the request.
4. The security deposit shall be maintained 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 this Licence.
5. The fees payable to the Receiver General for Canada for the right to use Waters, shall be sent to the Board annually in accordance with Section 12 of the *Regulations*.
6. The Licensee shall file an Annual Report on the Appurtenant Undertaking with the Board no later than March 31st of the year following the calendar year being reported, containing the following information:
 - a. A summary report of Water use and Waste disposal activities;
 - b. Quantity of Water (in cubic metres/day) obtained for domestic and other purposes from sources on, in or flowing through Inuit-owned lands for the reporting period;
 - c. Quantity of Water (in cubic metres/day) obtained for domestic and other purposes from sources on, in or flowing through Crown Lands reporting period;
 - d. Quantity of Waste disposed of on on-site Waste disposal facility;
 - e. Quantity of Waste backhauled to approved facility for disposal;
 - f. A list of unauthorized discharges and a summary of follow-up actions taken;

- g. Any revisions to the Spill Contingency Plan, Water Management Plan, Waste Management Plan, Quarry Management Plan, and Abandonment and Restoration Plan as required by Part B, Item 7, submitted in the form of an Addendum;
 - h. A description of all progressive and or final reclamation work undertaken, including photographic records of site conditions before, during and after completion of operations;
 - i. Report all artesian flow occurrences as required under Part F, Item 4;
 - j. A summary of all information requested and results of the Monitoring Program;
 - k. Details pertaining to locations of sump(s) and drill holes;
 - l. GPS co-ordinates (in degrees, minutes and seconds of latitude and longitude) for the locations of all temporary camps established in support of the project if the actual coordinates differ from that provided in the application;
 - m. A summary, including photographic records before, during and after any relevant construction activities or Modifications and/or major maintenance work carried out on facilities under this Licence and an outline of any work anticipated for the next year;
 - n. Detailed discussion on the performance, installation, and evaluation, including the use of photographic record, of the primary and secondary containment functions used in fuel storage to safeguard impacts to freshwaters;
 - o. An updated estimate of the current restoration liability required under Part B, Item 2, based upon the results of restoration assessment, project development monitoring, and any changes or Modifications to the project;
 - p. A summary of public consultation/participation in relation to Water use and/or Waste deposit, describing consultation with local organizations and residents of the nearby communities, if any were conducted;
 - q. Any other details on Water use or Waste disposal requested by the Board by the 1st November of the year being reported.
7. The Licensee shall notify the NWB of any changes in operating plans or conditions associated with this project at least thirty (30) days prior to any such change.
 8. The Licensee shall install flow meters or other such devices, or implement suitable methods required for the measuring of Water volumes as required under Part J, Item 1.
 9. The Licensee shall post signs in the appropriate areas to inform the on-site personnel and public of the location of the Water Supply Facility, Wastewater Treatment System and Monitoring Program Stations. All signs shall be in English and Inuktitut.
 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. 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. The Licensee shall, for all Plans submitted under this Licence, implement the Plan as approved by the Board in writing.
 12. The Licensee shall review the Plans referred to in this Licence, as required by changes in

operation and/or technology, and modify the Plan accordingly. Revisions to the Plans shall be submitted in the form of an Addendum to be included with the Annual Report.

13. 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.
14. The Licensee shall ensure a copy of this Licence is maintained at the site of operations at all times. Any communication with respect to this Licence shall be made in writing to the attention of:

(a) **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

(b) **Inspector Contact:**
Manager of Field Operations, CIRNA
Nunavut District, Nunavut Region
P.O. Box 100
Iqaluit, NU X0A 0H0
Telephone: (867) 975-4295
Fax: (867) 979-6445

15. The Licensee shall submit an electronic copy of all reports, studies, and plans to the Board. Reports or studies submitted to the Board by the Licensee shall include a detailed executive summary in Inuktitut.
16. The Licensee shall ensure that all documents or correspondence submitted by the Licensee to the NWB are received and acknowledged by the Manager of Licensing.
17. This Licence is assignable as provided for in Section 44 of the *Act*.
18. The expiry or cancellation of this Licence does not relieve the Licensee from any obligation imposed by the Licence, or any other regulatory requirement.

PART C: CONDITIONS APPLYING TO WATER USE

1. The Licensee shall obtain Water for domestic purposes from the unnamed lake located in the proximity of the camp as outlined in the Application for Amendment dated November 13, 2019. All Water for drill/industrial purposes shall be obtained from local Water source(s) proximal to the drilling targets. The volume of Water for the purposes of this

Licence shall not exceed two hundred and ninety-nine (299) cubic metres per day.

2. The use of Water from streams or any Water bodies not identified in Part C, Item 1, is prohibited unless authorized and approved by the Board in writing.
3. The withdrawal of Water from any stream shall not exceed ten (10) per cent of the low flow of that stream unless approved by the Board in writing.
4. The Licensee shall submit to the Board for approval in writing, the following information at least thirty (30) days prior to the use of Water of a sufficient volume that the source water body may be drawn down: volume required, hydrological overview of the water body, details of impacts, and proposed mitigation measures.
5. 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.
6. The Licensee shall not conduct any work below the ordinary High Water Mark of any water body unless approved by the Board in writing.
7. The Licensee shall not cause erosion to the banks of any body of Water and shall provide necessary controls to prevent such erosion.
8. Sediment and erosion control measures shall be implemented prior to and maintained during the undertaking to prevent entry of sediment into Water.

PART D: CONDITIONS APPLYING TO WASTE DISPOSAL

1. The Board has approved the Plan entitled “Waste Management Plan” dated July 26, 2017 that was submitted with the 2017 Annual Report.
2. The Licensee shall submit for Board approval within sixty (60) days following issuance of the Licence, a revised Plan as referred to in Part D, Item 1 to reflect the current operations at the Meadowbank Advanced Exploration Project.
3. 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, unless otherwise approved by the Board in writing.
4. The Licensee shall not practice on-site land filling of domestic Waste, unless otherwise approved by the Board in writing.
5. The Licensee is authorized to dispose of all acceptable food Waste, paper Waste and untreated wood products in an incinerator.
6. 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.

7. The Licensee shall provide to the Board documented authorization from all communities in Nunavut receiving Wastes from the Meadowbank Advanced Exploration Project prior to any backhauling and disposal of Wastes to those communities.
8. The Licensee shall backhaul and dispose of all hazardous Wastes, Waste oil and non-combustible Waste generated through the course of the operation at a licensed Waste disposal site.
9. The Licensee shall maintain records of all Waste backhauled and records of confirmation of proper disposal of backhauled Waste. These records shall be made available to an Inspector upon request.
10. The Licensee shall direct Sewage to the Wastewater Treatment System (WWTS) as referenced in the Application for Renewal dated December 13, 2017, unless otherwise approved by the Board in writing.
11. All Wastewater effluent discharged from the WWTS at Monitoring Station MEA-2 shall not exceed the following Effluent quality limits:

Parameter	Maximum Authorized Concentration of any Grab Sample
pH	6.0 to 9.5
Biochemical Oxygen Demand (BOD ₅)	80 mg/L
Total Suspended Solids (TSS)	100 mg/L
Fecal Coliforms	1000 CFU/100mL
Oil and Grease	5 mg/L & No visible sheen

12. All solid waste (sludge) from WWTS shall be disposed of in latrine pits that shall be located at a distance of at least thirty-one (31) metres above the ordinary High Water Mark of any water body, treated with lime and covered with native material to achieve the pre-existing natural contours of the land prior to abandonment.
13. The Licensee shall direct all Water accumulated in blasted or excavated trenches to a Trench Water Containment to allow for sampling prior to release. Water collected in hand-dug trenches shall be directed to a natural depression sump, as required by Part D, Item 1.
14. All Effluent discharged from Fuel Storage Facility at Monitoring Station MEA-3, shall not exceed the following Effluent quality limits:

Parameter	Maximum Authorized Concentration of any Grab Sample (µg/L)
Benzene	370
Ethylbenzene	90

Toluene	2
Lead	1
Oil and Grease	15,000 and no visible sheen

15. All Effluent discharged from Trench Water Containments and Quarry sumps shall be carried out in accordance with Part D, Item 3, directed to a natural depression where direct flow into a water body is not possible and no additional impacts are created. All Effluent discharges shall not exceed the following Effluent quality limits:

Parameter	Maximum Authorized Monthly Mean Concentration (mg/L)	Maximum Concentration of any Grab Sample (mg/L)
Total Ammonia	16	32
Total Arsenic*	0.30	0.60
Total Chloride	1000	2000
Total Copper*	0.30	0.60
Total Lead*	0.10	0.20
Total Nickel*	0.50	1.00
Total Zinc*	0.50	1.00
Total Suspended Solids (TSS)*	15	30
Total Dissolved Solids (TDS)	1400	1400
Oil and Grease	No visible sheen	No visible sheen
pH	6.0-9.5	6.0-9.5

*Metal and Diamond Mining Effluent Regulations as per Amendments coming into force in June 2021.

16. All discharges shall be released in such a manner to minimize surface erosion.
17. In the event that Effluent planned for discharge exceeds the limits provided in Part D, Items 11, 14 and 15, the Licensee shall investigate the cause of the noted exceedance and report any findings, along with planned mitigation measures to meet these limits, prior to any discharge.
18. The Licensee shall provide at least ten (10) days' notification to an Inspector, prior to initiating the release of Effluent from any facilities in this Part. The notice shall include water quality results, an estimate of volume and the proposed receiving location.
19. The Licensee shall maintain all constructed facilities to the satisfaction of an Inspector.

PART E: CONDITIONS FOR CAMPS, ACCESS INFRASTRUCTURES AND OPERATIONS

1. The Licensee shall not erect camps or store material on the surface of frozen streams or lakes including the immediate banks except what is for immediate use. Camps shall be located such as to minimize impacts on surface drainage.

2. The Licensee shall conduct all activities in such a way as to minimize impacts on surface drainage and the Licensee shall immediately undertake corrective measures in the event of any impacts on surface drainage.
3. The Licensee shall construct all winter lake and stream crossings, including ice bridges, entirely of Water, ice or snow. The Licensee shall minimize disturbance by locating ice bridges in an area that requires the minimum approach grading and the shortest crossing route. Stream crossings shall be removed or the ice notched prior to spring break-up.
4. Stream crossing shall be a minimum of five hundred (500) meters from spawning areas.
5. With respect to access road, pad construction or other earthworks, the deposition of debris or sediment into or onto any water body is prohibited. These materials shall be disposed a distance of at least thirty one (31) metres from the ordinary High Water Mark in such a fashion that they do not enter the Water.
6. The Licensee shall not mobilize heavy equipment or vehicles for trenching or other activities unless the ground surface is capable of fully supporting the equipment or vehicles without rutting or gouging. Overland travel of equipment or vehicles shall be suspended if rutting occurs.
7. The Licensee shall adhere during quarrying activities to the Plan entitled “Operational ARD-ML Sampling and Testing Plan – Whale Tail Pit Expansion Project” dated April 2019 and previously approved under Water Licence No: 2AM-WTP1830.
8. The Board has approved the Plan entitled “Quarrying Management Plan KVCA15Q01 Eskers 7 and 7B, Quarry 1” dated August 2017 that was submitted with the 2017 Annual Report.
9. The Licensee shall submit for Board approval within sixty (60) days following issuance of the Licence, a revised Plan as referred to in Part E, Item 8 to reflect the current operations at the Meadowbank Advanced Exploration Project.
10. The Licensee shall submit to the Board for review within thirty (30) days prior to construction, issued-for-construction drawings for all engineered project infrastructures (i.e. roads, camp pad construction, water crossings) stamped by a qualified Engineer. A Construction Summary Report including as-built plans and drawings stamped by a qualified Engineer shall be submitted to the Board within ninety (90) days of completing construction undertakings.
11. The Licensee shall maintain a minimum of thirty-one (31) metres large undisturbed buffer zone between the periphery of quarry sites and the high water mark of any water body. The Licensee shall not excavate and/or remove material from the quarry beyond a depth of one (1) meter above the high water mark or above the groundwater table, to prevent the contamination of groundwater. The quarrying shall be in accordance with all applicable legislation and industry standards including the *Northern Land Use Guidelines, Pits and Quarries* (INAC, 2010).

12. Sediment and erosion control measures shall be implemented prior to and maintained during the construction and operation where necessary to prevent entry of sediment into water.
13. The Licensee shall ensure that all containment and runoff control structures are constructed and maintained to prevent escape of wastes to the surface or groundwater systems.
14. The Licensee shall limit any in-stream activity including crossing/fording to low water period. Machinery fording the watercourse to bring equipment required for construction to the opposite side is limited to a one-time event (over and back) and should occur only if an existing crossing at another location is not available or practical to use. In-stream activity is prohibited during fish migration.
15. The Licensee shall only use rock for construction that is determined to be non-acid generating and non-metal leaching.
16. The Licensee shall, for the purposes of clear span bridge installation, ensure that all activities remain outside of the natural channel width by the placement of abutments, footings or armoring above the ordinary high water mark so that there is no restriction to the natural channel processes.
17. With respect to construction or other earthworks where direct or indirect flow into a water body is possible, the deposition of debris or sediment into or onto any water body is prohibited. These materials shall be disposed a distance of at least thirty-one (31) metres from the ordinary High Water Mark in such a fashion that they do not enter the water.
18. All surface runoff during the construction of any facilities, where flow may directly or indirectly enter a water body, shall meet the following Effluent quality limits:

Parameter	Maximum Average Concentration (mg/L)	Maximum Concentration of Any Grab Sample (mg/L)
Total Suspended Solids	50.0	100.0

19. The Licensee shall ensure that all construction of engineered structures is supervised and field checked by an appropriately qualified and experienced Engineer in such a manner that the project specification can be enforced and, where required, and the quality control measures can be 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.

PART F: CONDITIONS APPLYING TO DRILLING OPERATIONS AND TRENCHING

1. The Licensee shall not conduct any land based drilling within thirty-one (31) metres of the ordinary High Water Mark of any water body, except for drilling specified in Part F,

Item 2, and unless otherwise approved by the Board in writing.

2. The Licensee is authorized to conduct land-based drilling within thirty-one (31) metres of the ordinary High Water Mark of any water body during winter conditions within the project area, as identified in the Amendment Application and associated documents received on April 8, 2011.
3. The Licensee shall, when conducting drilling within thirty-one (31) metres of the ordinary High Water Mark, carry out activities on stable ground such as frozen tundra or bedrock, to prevent disturbance to the natural ground and limit erosion and sedimentation.
4. The Licensee is authorized to conduct drilling based on barge within two lakes, as described in the Amendment Application and associated documents received in July / August, 2015.
5. The Licensee shall establish water quality conditions of adjacent Waters or Waters immediately downstream of any drilling program within thirty-one (31) metres of the ordinary High Water Mark of any water body:
 - a. prior to any such drilling program as per Part J, Item 9;
 - b. upon completion of any such drilling program; and
 - c. the summer season following any such drilling program.
6. The Licensee shall dispose of all drill waste, including Water, chips, muds and salts (CaCl_2) in any quantity or concentration, from land-based and on-ice drilling, in a properly constructed Sump or an appropriate natural depression located at a distance of at least thirty-one (31) metres from the ordinary High Water Mark of any adjacent water body, where direct flow into a water body is not possible and no additional impacts are created.
7. If artesian flow is encountered, drill holes shall be immediately sealed and permanently capped to prevent induced contamination of groundwater or salinization of surface Waters. The Licensee shall report all artesian flow occurrences within the Annual Report, including the location (GPS coordinates) and dates.
8. Drilling additives or mud shall not be used in connection with holes drilled through lake ice unless they are re-circulated or contained such that they do not enter the Water, or are demonstrated to be non-toxic.
9. For “on-ice” drilling where drill additives are not being used, return Water released must be nontoxic, and not result in an increase in total suspended solids in the immediate receiving Waters, above the Canadian Council of Ministers for the Environment, Guidelines for the Protection of Freshwater Aquatic Life (i.e. 10 mg/L for lakes with background levels under 100 mg/L, or 10% for those above 100 mg/L).
10. The Licensee shall establish water quality conditions prior to and upon completion of any drilling program through lake ice.

11. The Licensee shall, during trenching activities utilizing blasting, provide mitigation measures to prevent the transport of rock material, explosives residues, sediment and other materials from entering water as required by Part C, Item 8 and Part E, Item 5.
12. The Licensee shall stockpile all overburden/topsoil generated during trenching using proper erosion prevention measures. Upon completion of operation, the Licensee shall backfill, reclaim/re-contour and re-vegetate all disturbed areas.
13. The Licensee shall provide to the Board for review, at least sixty (60) days prior to the beginning of trenching operations, a proposed Trenching Plan which shall include the following:
 - a. Size and location of trenches including GPS coordinates;
 - b. Approximate dimensions (length, width and depth) of each trench;
 - c. Proposed mitigation measures for the prevention of the transport of sediments, blasting residues, fly rock and other materials, from the trench area to nearby water bodies;
 - d. Projected volume and quality of water discharged from each trench with potential treatment required; and
 - e. Proposed monitoring program to be carried out on trench wastewater prior to discharge.

PART G: CONDITIONS APPLYING TO MODIFICATIONS

2. The Licensee may, without written consent from the Board, carry out Modifications to the Water Supply Facilities and Waste Disposal Facilities 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 NIRB Screening Decision;
 - d. the Board has not, during the 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.
3. Modifications for which all of the conditions referred to in Part G, Item 1 have not been met can be carried out only with written approval from the Board.
4. The Licensee shall provide as-built plans and drawings of the Modifications referred to in this Licence within ninety (90) days of completion of the Modification. These plans and drawings shall be stamped by an Engineer.

PART H: CONDITIONS APPLYING TO SPILL CONTINGENCY PLANNING

1. The Board has approved the Plan entitled “*Amaruq and GOT Exploration Projects Spill Contingency Plan*” dated August 2019 that was submitted with water licence amendment application dated November 13, 2019.
2. The Licensee shall submit for Board review within sixty (60) days following the issuance of the Licence, a revised Plan as referred to in Part H, Item 1 to reflect the commitments made by the Licensee during the 2019-2020 licensing process.
3. The Licensee shall prevent any chemicals, petroleum products or Wastes associated with the project from entering Water. All Sumps and fuel caches shall be located at a distance of at least thirty-one (31) metres from the ordinary High Water Mark of any adjacent water body and inspected on a regular basis.
4. The Licensee shall conduct any equipment maintenance and servicing in designated areas and shall implement special procedures (such as the use of drip pans) to manage motor fluids and other Waste and contain potential spills.
5. If during the term of this Licence, an unauthorized discharge of Waste occurs, or if such a discharge is foreseeable, the Licensee shall:
 - a. Employ the approved Spill Contingency Plan;
 - b. Report the spill immediately to the NWT/NU 24-Hour Spill Line at (867) 920-8130 and to the Inspector at (867) 975-4295; and
 - c. For each spill occurrence, submit to the Inspector, no later than thirty (30) days after initially reporting the event, a detailed report that will include 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.
6. The Licensee shall, in addition to Part H, Item 5, regardless of the quantity of releases of harmful substances, report to the NWT/NU 24-Hour Spill Line if the release is near or into a Water body.

PART I: CONDITIONS APPLYING TO CLOSURE AND RECLAMATION OR TEMPORARY CLOSURE

1. The Licensee shall implement the Plan entitled “Conceptual Closure and Reclamation Plan & Reclaim Estimate” updated March 2016 and originally approved by the Board.
2. The Licensee shall submit for Board review within sixty (60) days following issuance of the Licence, a revised Plan in Part I, Item 1 to reflect the current operations at the Meadowbank Advanced Exploration Project.
3. The Licensee shall complete all restoration work prior to the expiry of this Licence.

4. The Licensee shall carry out progressive reclamation of any components of the project no longer required for the Licensee's operations.
5. The Licensee shall backfill and restore all sumps, Sewage/washwater pits to the pre-existing natural contours of the land.
6. The Licensee shall remove from the site, all infrastructure and site materials, including all fuel caches, drums, barrels, buildings and contents, docks, water intakes, pumps and lines, material and equipment prior to the expiry of this Licence.
7. All roads and airstrip, if any, shall be re-graded to match natural contour to reduce erosion.
8. The Licensee shall remove any culverts and restore the drainage to match the natural channel. Measures shall be implemented to minimize erosion and sedimentation.
9. In order to promote growth of vegetation and the needed microclimate for seed deposition, all disturbed surfaces shall be prepared by ripping, grading, or scarifying the surface to conform to the natural topography.
10. Areas that have been contaminated by hydrocarbons from normal fuel transfer procedures shall be reclaimed to meet objectives as outlined in the Government of Nunavut's Environmental Guideline for Site Remediation, 2010. The use of reclaimed soils for the purpose of back fill or general site grading may be carried out only upon consultation and approval by the Government of Nunavut, Department of Environment and an Inspector.
11. The Licensee shall restore all drill holes and disturbed areas to natural conditions immediately upon completion of the drilling. The restoration of drill holes must include the removal of any drill casing materials and if having encountered artesian flow, the capping of holes with a permanent seal. Where drill casings cannot be removed the Licensee shall cut off the casings at ground level and identify with signage.
12. The Licensee may leave the casings on site, if it intends to continue drilling in existing casings, but shall add signaling to keep the area safe for the other territory users. The drill casings left cannot stay on the field for more than 2 years after the drilling.
13. The Licensee may store drill core produced by the appurtenant undertaking in an appropriate manner and location at least thirty one (31) metres above the ordinary High Water Mark of any adjacent water body, where any direct flow into a water body is not possible and no additional impacts are created.
14. The Licensee shall contour and stabilize all disturbed areas to reduce erosion and sedimentation to Water, upon completion of the undertaking and as per Part I, Item 5.

PART J: CONDITIONS APPLYING TO THE MONITORING PROGRAM

1. The Licensee shall measure and record, in cubic metres, the daily quantities of water that is used from sources located on, in or flowing through Crown Land, utilized for camp at Monitoring Program Station MEA-1, drilling and other purposes.
2. The Licensee shall, at a minimum, maintain Monitoring Stations at the following locations:

Monitoring Station	Description	Status
MEA-1	Amaruq Camp Water Intake	Volume
MEA-2	Effluent discharged from the Wastewater Treatment System (WWTS)	Volume and Effluent Quality
MEA-3	Effluent discharged from the Fuel Storage Facility	Volume and Effluent Quality

3. The Licensee shall sample the effluent discharging from the WWTS at Monitoring Station MEA-2 prior to its release into environment in order to provide confirmation of effluent quality as required by Part D, Item 11, for the following parameters:

pH	Fecal Coliform
Biochemical Oxygen Demand (BOD ₅)	Oil and Grease (and visual)
Total Suspended Solids (TSS)	

4. The Licensee shall sample the effluent discharging from the Fuel Storage Facility at Monitoring Station MEA-3 prior to its release into environment in order to provide confirmation of effluent quality as required by Part D, Item 14.
5. The Licensee shall sample the effluent discharging from Trench Water Containment prior to its release into environment in order to provide confirmation of effluent quality as required by Part D, Item 15.
6. The Licensee shall provide the GPS co-ordinates (in degrees, minutes and seconds of latitude and longitude) of all locations where sources of Water are utilized for all purposes.
7. The Licensee shall determine the GPS co-ordinates (in degrees, minutes and seconds of latitude and longitude) of all locations where Wastes associated with camp operations and drilling operations are deposited.
8. The Licensee shall determine the GPS co-ordinates (in degrees, minutes and seconds of latitude and longitude) of all drill holes located within thirty-one (31) metres of the

ordinary High Water Mark, as per Part F, Item 2, and provide these locations on a map of suitable scale for review as part of the annual report.

9. The Licensee shall establish background and post drilling water quality for pH, conductivity, temperature and dissolved oxygen at the nearest downstream water body to drill locations. Monitoring is to be done just prior to commencement of drilling and weekly thereafter, concluding one week after drilling has been completed and the site restored.
10. The Licensee shall obtain representative samples of the Water column below any ice where required under Part F, Items 9 and 10. Monitoring shall include but not be limited to the following:

Group	Parameters
Physical Parameters	pH, electrical conductivity, total suspended solids.
Major Ions	Calcium, chloride, magnesium, potassium, sodium, sulphate.
Total Metals	Aluminum, antimony, arsenic, barium, beryllium, boron, cadmium, chromium, copper, iron, lead, lithium, manganese, mercury, molybdenum, nickel, selenium, silver, strontium, tin, titanium, uranium, vanadium and zinc.

11. The Licensee shall establish baseline water quality conditions prior to drilling within thirty-one (31) metres of the ordinary High Water Mark as per Part F, Items 2 and 3. Monitoring shall include the following:

Group	Parameters
Physical Parameters	pH, electrical conductivity, total suspended solids, turbidity.
Major Ions	Calcium, chloride, magnesium, potassium, sodium, sulphate.
Total Metals	Aluminum, antimony, arsenic, barium, beryllium, boron, cadmium, chromium, copper, iron, lead, lithium, manganese, mercury, molybdenum, nickel, selenium, silver, strontium, tin, titanium, uranium, vanadium and zinc.

12. The Licensee shall, where turbidity is observed in adjacent waters or waters immediately downstream of any drilling program conducted within thirty-one (31) metres of the ordinary High Water Mark of any water body, during summer following any such drilling program as per Part F, Item 5 (c), conduct additional monitoring of the parameters listed in Part J, Item 11 to determine whether any further mitigation is required.

13. The Licensee shall monitor runoff and/or discharge from the quarry sites to receiving environment, during blasting activities, during periods of flow and following significant precipitation events, on a monthly basis, for the following parameters:

Group	Parameters
Physical Parameters	pH (field and laboratory), temperature (field), alkalinity, bicarbonate, carbonate, electrical conductivity, hardness, hydroxide, ion balance, total dissolved solids, total suspended sediments.
Nutrients	Ammonia-nitrogen, nitrate nitrogen, nitrite-nitrogen, ortho-phosphate.
Major Ions	Calcium, chloride, magnesium, potassium, sodium, sulphate.
Total Metals	Aluminum, antimony, arsenic, barium, beryllium, boron, cadmium, chromium, copper, iron, lead, lithium, manganese, mercury, molybdenum, nickel, selenium, silver, strontium, tin, titanium, uranium, vanadium and zinc.

14. The Licensee shall, during periods of flow and just after a major rainfall event, conduct water quality testing immediately upstream and downstream of the water crossings, any significant water seeps in contact with the road and any flows originating from borrow pits or rock quarries on a monthly basis prior to construction, during the construction and upon completion for the parameters listed under Part J, Item 14.
15. The Licensee shall implement a water crossings visual inspection and maintenance program prior to, during spring freshet and after heavy rainfall events to identify issues related to watercourse crossings structural integrity and hydraulic function.
16. The Licensee shall annually review the approved by accredited laboratory plan entitled “Quality Assurance/Quality Control Plan” dated January 2017 and modify it as necessary. Proposed changes shall be submitted to an accredited laboratory for approval.
17. All sampling, sample preservation and analyses shall be conducted in accordance with methods prescribed in the current edition of *Standard Methods for the Examination of Water and Wastewater*, or by such other methods approved by the Board in writing.
18. All analyses shall be performed in a laboratory accredited according to ISO/IEC Standard 17025. The accreditation shall be current and in good standing.
19. The Licensee shall include in the Annual Report required under Part B, Item 6 all data, monitoring results and information required by this Part.