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NUNAVUT WATER BOARD
NUNAVUT IMALIRIYIN KATIMAYINGI
OFFICE DES EAUX DU NUNAVUT

File No: 2BM-ULU2030

May 14, 2020

Peter Kuhn
General Manager
Blue Star Gold Corp.
1125-595 Howe St.
Vancouver, BC V6C 2T5

E-mail: kjgold2010@gmail.com

RE: Water Licence No: 2BM-ULU2030 Ulu Project

Dear Mr. Kuhn:

Please find attached renewal Water Licence No: **2BM-ULU2030** issued to Blue Star Gold Corp. (Blue Star or Licensee or Applicant) 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 water use and waste deposit are an integral part of this approval.

If the Licensee contemplates the renewal of this Licence, it is the responsibility of the Licensee to apply to the NWB for its renewal. 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 Licence renewal. Note that if the Licence expires before the NWB issues a new one, then water use and waste deposit must cease, or the Licensee may be in contravention of the *Nunavut Agreement* and the *Nunavut Waters and Nunavut Surface Rights Tribunal Act (NWNSTRA)*. 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 is not 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 interest, to hold a public hearing. The Licensee should submit application 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.

The NWB strongly recommends that the Licensee consult the comments received by interested persons on issues identified. This information is attached for your consideration.¹

Sincerely,

Lootie Toomasie
Nunavut Water Board
Chair

LT/dd/rqd

Enclosure: Licence No: **2BM-ULU2030**
Comments – KIA, CIRNA

Cc: Kitikmeot Distribution List

¹ Crown-Indigenous Relations and Northern Affairs (CIRNA), May 5 and May 11, 2020; Kitikmeot Inuit Association (KIA), May 8, 2020.

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LICENCE No: 2BM-ULU2030

This is the decision of the Nunavut Water Board (NWB) with respect to an application received on April 8, 2020, for a renewal of a Water Licence made by:

BLUE STAR GOLD CORP.

to allow for the use of water and deposit of waste during gold mining, exploration, camp operations, and environmental baseline studies at the Ulu Gold Project site, located approximately 220 km southeast of Kugluktuk in the Kitikmeot Region of Nunavut, generally at the geographical coordinates as follows:

Latitude: 66° 54' 27" N Longitude: 110° 58 '24" W

DECISION

After having been satisfied that the activities associated with this project proposal are outside of an area with an approved Land Use Plan,² and do not require a review by the Nunavut Impact Review Board (NIRB)³ pursuant to Article 12, Section 12.4.4(a) of the *Agreement between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in right of Canada (Nunavut Agreement)* and s. 92(1)(a) of the *Nunavut Planning and Project Assessment Act*, S.C. 2013, c. 14, s. 2 (NuPPAA) and subject to the terms and conditions recommended in the NIRB Screening Decision Report, 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 (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 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 *NWNSRTA*, decided to waive the requirement to hold a public hearing, determined that pursuant to its authority under Article 13 of the *Nunavut Agreement* and the *Act*, the Nunavut Water Board hereby grants the following renewal Licence.

Licence No: 2BM-ULU1520 be renewed as Licence No: 2BM-ULU2030 subject to the terms and conditions contained therein. (Motion #: 2020-B1-005)

SIGNED this 14th day of May 2020 at Gjoa Haven, NU.

Sincerely,

Lootie Toomasie
Nunavut Water Board
Chair

LT/dd/rqd

2 Nunavut Planning Commission (NPC) Determinations, January 15, 2020 and Feb 20, 2020.

3 Nunavut Impact Review Board (NIRB) Screening Decision, April 6, 2020.

WATER LICENCE No: 2BM-ULU2030

I. BACKGROUND

The Ulu Gold Project (Project) is situated in the Kitikmeot Region of Nunavut, approximately 220 km southeast of Kugluktuk, about 12 kilometres north of the Hood River, and 150 km north of the Lupin Mine site. The Project is owned and operated by Blue Star Gold Corp. (Blue Star or Licensee), through its wholly owned subsidiary Ulu Mining Inc. The Project is contiguous with the Hood River Gold Project, also owned by Blue Star, through its other subsidiary Inukshuk Exploration Inc.

Previously the Project was owned by several other companies. Echo Bay Mines Ltd. obtained ownership of the lease(s) associated with the project from BHP in 1995 with intentions to develop the property as a satellite mine for additional feed to the Lupin mill. In 1996, the project carried out underground development, diamond drilling and a bulk-sample program to provide infill geological information. In 2003, Kinross Gold Corporation acquired Echo Bay Mines Ltd. through a merger of companies. In 2004, Wolfden Resources Inc. purchased the Ulu Project from Kinross Gold Corporation. Zinifex Canada Inc in turn purchased Wolfden Resource Inc., in 2007. In 2008, Zinifex merged with Oxiana Limited to form OZ Minerals, following which the assets of OZ Minerals were purchased by China Minmetals, resulting in OZ Minerals becoming MMG Resources Inc. In 2011, the Ulu Gold Project was sold to Bonito Capital Corporation and to Blue Star Corp. in 2019.

There are three main sites associated with the Project:

- **Ulu Camp**: Includes the Ulu camp, which houses the residential complex consisting of Weatherhaven accommodations, vehicle repair shop, vehicle parking, power house, emergency generators, office and change rooms, fuel storage tank farm, freshwater system, sewage treatment plant and sewage line, incinerator, ore storage area, waste pad, mine portal, mine sump, surface retention pond and access roads
- **Camp 3**: Which has been reclaimed and historically consisted of a camp, a fuel tank farm, explosive magazine storage area, detonator magazine storage area, and borrow pit eskers.
- **Airstrip**: Consisting of the Airstrip and a potential location for a new camp.

The Ulu Gold project went into care and maintenance in 2006 and since then the progressive reclamation has reclaimed the following from the Camp 3 and Ulu Camp sites:

- Camp 3
 - Explosives magazine storage.
 - Detonator magazine storage.
 - Camp 3 domestic facilities.
- Ulu Camp
 - Freshwater Intake Facilities.
 - Sewage Treatment Facility and Sewage line.
 - Vent.
 - Tank Farm.

The current licence allows for the use of water and deposit of waste during Project operations

and activities related to the continued reclamation of the Ulu Camp site and mineral exploration that include the following:

- conduct progressive reclamation of legacy site infrastructure;
- establishment of a non-hazardous waste landfill;
- establishment of a soil treatment facility (landfarm) for the treatment of hydrocarbon contaminated soils;
- recommence surface and underground exploration activities including mapping, prospecting, land and ice-based drilling, and bulk sampling for off-site processing;
- increase water withdrawal amount in current licence to 299 m³/day;
- future establishment of a new temporary camp and associated water supply in a location proximal to the existing airstrip;
- maintenance, use and extension of existing airstrip;
- establishment of new industrial and domestic water supplies proximal to drill targets and the new future camp location;
- use of existing quarries and borrow sites for construction materials;
- establishment of a new quarry for construction materials;
- seasonal construction and use of the historic winter trail between Ulu and the Lupin Mine;
- establishment of a bulk fuel storage in tanks or bladders up to 100,000 L capacity;
- potential establishment of remote fuel caches;
- undertake environmental baseline studies;
- potential use of an ice airstrip strip and/or historical winter trail route to support resupply;
- use of a portable camp for winter trail support, emergency shelter or exploration camp;
- use of an incinerator for combustible waste;
- non-combustible waste to be either recycled, reuse/repurpose where possible, backhauled from site or disposed in onsite landfill;
- drill cuttings to be disposed of in a sump;
- human waste will be incinerated or disposed of in a sump;
- greywater to be disposed of in a sump; and
- hazardous waste to be backhauled and disposed of in a suitable facility.

II. FILE HISTORY

The Ulu Project has held a Water Licence with the NWB since 1998, as outlined in Table 1.

Table 1. Project Licensing History

Licence No.	Date Issued	Comments
NWB1ULU0008	July 1, 2000	Issued to Echo Bay Mines Limited. Water use of 100 m ³ per day and deposit of waste.
-	March 23, 2004	Licence assigned from Echo Bay Mines Ltd. Wolfden Resources Inc.
-	March 17, 2006	Licence amended to address Sewage Effluent Discharge quality.
2BM-ULU0914	October 8, 2009	Issued to MMG Resources Inc., allowing for Water use of 100 m ³ per day and deposit of waste.

-	September 9, 2011	Licence assigned from MMG Resources Inc. to Bonito Capital Corporation.
2BM-ULU1520	May 13, 2015	Issued to Bonito Capital Corporation. Water use of 100 m ³ per day and deposit of waste.
-	September 10, 2019	Licence assigned from Bonito Capital Corporation to Blue Star Gold Corp.

III. RENEWAL AND AMENDMENT APPLICATION

On April 8, 2020, the Nunavut Water Board (NWB or Board) acknowledged receipt of a complete application from Blue Star Gold Corp., for the renewal and amendment of Water Licence 2BM-ULU1520, for the Ulu Gold Project. The following documents were included within the renewal application:

- 200313 AppxA1_Map
- 200313 AppxA2_Map
- 200313 AppxA3_Map_Mar2020
- 200313 AppxA4_Map_Mar2020
- 200313 AppxB1_NPC_Jan2020
- 200313 AppxB2_NPC_Feb2020
- 200313 AppxC1_NIRB_99WR055
- 200313 AppxC2_NIRB_04EN014
- 200313 AppxC3_NIRB_05EN007
- 200313 AppxC4_NIRB_06EN048
- 200313 AppxD_PDescription
- 200313 AppxE1_PSummary_EN
- 200313 AppxE2_PSummary_IQ
- 200313 AppxE3_PSummary_IU
- 200313 AppxG_FXAssessment
- 200313 AppxH1_EngagementLog
- 200313 AppxH2_EngagementSummary
- 200313 AppxI_Financial
- 200313 AppxJ_Officers
- 200313 AppxK_Incorporation
- 200313 AppxL_Compliance
- 200313 AppxN_Spill Plan
- 200313 AppxO_WasteMP
- 200313 AppxR_EnviroHeritageResPP
- 200313 AppxS_STFMP
- 200313 Cover Letter
- 200316 AppxT_BQMP
- 200316 AppxU_LMP_all
- 200317 AppxD_PDescription_v2
- 200317 AppxM_Licence
- 200406 RenewAmend_ApplicationForm
- 200406 RenewAmend_AppxF_SIG

- 200406 RenewAmend_AppxP_CostEstimate
- 200406 RenewAmend_AppxP_ICRP
- 200406 RenewAmend_AppxP_Memo_MLARD
- 200406 RenewAmend_AppxP_Memo_PHCContdSoil

Following an internal preliminary technical review, notice of the Renewal Application (Application) was posted and the Application was made available for general comment with a deadline of submission on May 8, 2020. Submissions were received from the Kitikmeot Inuit Association (KIA) and Crown-Indigenous Relations and Northern Affairs (CIRNA)

Based upon the results of the detailed assessment, including consideration of any potential accidents, malfunctions, or impacts to water that the overall project might have in the area, the Board approved the Application and has issued Licence No: 2BM-ULU2030 (Licence).

IV. LICENCE CONSIDERATIONS

The following section outlines the issues identified by the NWB and interested parties and provides the background on the terms and conditions imposed within the body of the licence.

Term of Licence

In accordance with the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* s. 45, the NWB may issue a Licence for a term not exceeding twenty-five years. In determining an appropriate term of a Water Licence, the Board considers a number of factors including, but not limited to the results of CIRNA site inspections and the corresponding compliance record of the Applicant, as well as intervener comments provided during the application review process. In the renewal Application, the Licensee requested a ten (10) year Licence renewal. In review of the comments received on the application, the NWB has noted that there were no concerns expressed with respect to the requested Licence term. In review of the information available during the renewal process, the NWB concurs with the Applicant that a Licence term of approximately ten (10) years would be appropriate. This term is consistent with the recent licences the NWB issued for advanced exploration projects.

The Licence duration will allow the Licensee to properly carry out the terms and conditions of the Licence and will ensure that sufficient time is given to permit the Licensee to develop, submit and implement the plans required under the Licence to the satisfaction of the NWB and carry out the proposed activities during this period.

Security

In accordance with s. 76(1) of the NWNSRTA, the Board may require a Licensee to furnish and maintain security with the Minister, in a form determined by the Nunavut Waters Regulations (Regulations) or satisfactory to the Minister⁴. Further, in a matter related to the posting of

⁴ Subsection 76(1) of the NWNSRTA states: 76(1) The Board may require an applicant, a licensee or a prospective assignee to furnish and maintain security with the Minister in the form, of the nature, subject to such terms and conditions in an amount prescribed by, or determined in accordance with, the regulations or that is satisfactory to the Minister.

security, the Board may not issue a licence unless the Board is satisfied that the financial responsibility of the applicant, taking into account the applicant's past performance, is adequate for the mitigation measures and any costs associated with the closure or abandonment of the undertaking⁵. For other similar advanced exploration projects, the NWB required that reclamation security be posted⁶.

Within the NWB's 2015 renewal licence the Board discussed differences in the evidence and submission in that proceeding amongst the Applicant (Bonito Capital at that time) and the parties (KIA and CIRNA), stating that *"the amount of security as well as whom should hold the security are ongoing issues that will have to be addressed over time. The Board also notes that the Project is currently under care and maintenance and that some work has been carried out in support of progressive reclamation throughout the years. Due to the aforementioned reasons, the Board has decided that the current financial security amount for the Project should be set at \$1,685,542."*

In its current Application Blue Star stated that *"currently, \$1,685,542 security is held by CIRNAC under the water licence and an additional \$750,000 has been posted with the KIA; \$2,435,542 has been posted altogether by Blue Star. Following completion of engineering, sampling and analyses, and through dialogue with the KIA, Blue Star estimates current security for Ulu to be \$2,554,367, an increase of \$118,835. Despite this increase, Blue Star requests that the total amount of security held currently remain unchanged under a renewed and amended licence as the contingencies considered in the estimate are very conservative and actual liabilities, especially those associated with large equipment repairs, will be better understood after the upcoming work season on site."*

In its comments, the KIA indicated that *"progress has been made on the question of how much security is needed in light of changes of ownership and changes at the site. KIA's Land Use Licence now also requires security from Blue Star. KIA is advising the NWB that it is currently holding seven hundred and fifty thousand dollars (\$750,000.00) in security for use in the closure and reclamation of the Ulu site. This amount is in addition to the one million six hundred eighty-five thousand five hundred forty-two dollars (\$1,685,542.00) currently held by Canada (CIRNAC) and should be considered by the NWB in any decision made in this proceeding about the amount of security required of Blue Star. The KIA also indicated that most of the risk of an under-secured site falls on the landowner KIA, and thus on Kitikmeot Inuit. The KIA submits that all liabilities at the site should be covered by financial security. In KIA's view, however, all security for the Ulu site should be held by the landowner, who is KIA. Any additional security required should be held by the party which must bear the most risk and responsibility and that is KIA."*

The KIA also advised that *"to address the Land and Water Split for Security Further discussions will have to take place between CIRNAC and KIA on security. This work should not delay a decision on the renewal by the NWB. In the short term, however, KIA recommends that the Blue Star licence be renewed with the current level of security."*

CIRNA stated within its comments that *"it is common for a security estimate to be conservative and estimates are based on current information and best predictions. CIRNAC is of the opinion*

⁵ See subsection 57(b) of the NWNSRTA.

⁶ Section 76(1) of the *Nunavut Waters and Nunavut Surface Rights Tribunal Act, 2002*.

that no new infrastructure should be built on site until sufficient security is posted, and recommended that Blue Star Gold post security to the designated responsible landowner prior to constructing new infrastructure.”

Under amendments to the NWNSRTA that came into force in 2015, the NWB is required to consider any security arrangements that are in place between the Designated Inuit Organization (the KIA in this case), the Government of Canada, and the Applicant, with a view to avoiding a situation of overlapping security being held for a project under the water licence and other instruments as may be required by the Designated Inuit Organization as land owner, such as a commercial production lease, land use permit, land lease, etc. The Board also recognizes that the amount of security that is permissible to be required under the Licence is limited by s. 10(1) of the Regulations and should not exceed the costs set out in s. 10(1)(a)-(d).

With respect to KIA suggestion about “*all security to be held by the landowner (KIA)*” the Board notes the difficulty inherent in attempting to draw somewhat arbitrary distinctions between land- and water-based security. The Board remains bound by jurisdictional and practical realities that do not support the repudiation of the Board’s fundamental view that reclamation security requires a holistic approach that must consider land- and water-based reclamation security in an integrated manner.

Reflecting the jurisdiction of the Board under s. 76 of the NWNSRTA and s. 10 of the Nunavut Waters Regulations, the Board has taken into account the evidence regarding reclamation liability provided by the parties throughout the Board’s consideration of the Application. This evidence includes, the information provided with the Application, the comments provided during the technical review of the Application. Reflecting the status of information available, the Board accepts that security in the global amount of \$2,435,542, as proposed by Blue Star and accepted by KIA and CIRNA is adequate to ensure the reclamation of the activities and undertakings included in the scope of the renewal Licence, and constitutes the appropriate amount of security to reclaim the undertaking. The Board acknowledges that \$750,000k is already held by KIA, and \$1,685,542 is currently held by the Minister.

Within the renewal Licence the Board included condition under Part B, Item 2, requiring the Licensee to furnish and maintain the total reclamation security in the amount of two million four hundred and thirty five thousand five hundred and forty two dollars (\$2,435,542), with one portion to be held by Minister under the Licence, and another portion to be held by KIA under land use instrument as discussed above. The Board also acknowledges that further discussions will take place between CIRNA and KIA on security allocation.

A staged approach to security administration was requested by the Applicant in order to allow exploration to proceed simultaneously with planned reclamation. The Licensee acknowledged that following completion of the Progressive Reclamation Program, historic mine related liabilities will remain on site, such as camp and mine-related infrastructure, waste rock and ore. They acknowledge that conditions are not well understood and costs associated with proper remediation and final closure of these items are currently not considered in the closure cost estimate, nor have they been historically included. The Applicant stated that “*these items in the cost estimate and requiring the Licensee to post security for these at this point in time would place an undue and inappropriate burden on the Licensee.*” The Licensee will however, undertake assessments prior to commencing Operations, and posting appropriate mine site

security at that time. Although generally agreeing with this approach, the Board advises that change to security shall be completed through an amendment process to allow parties to fully review the security proposed for each stage.

Annual Reporting

The NWB has imposed on the Licensee, the requirement to produce an Annual Reports. These Reports are for the purpose of ensuring that the NWB has an accurate annual update of the Licensee's activities related to water use and waste disposal during a calendar year. This information is maintained on the Public Registry and is available to interested parties upon request. A "Standardized Form for Annual Reporting" is to be used by the Licensee and is available from the NWB file transfer protocol (FTP) site under the Public Registry link at the NWB Website:

<ftp://ftp.nwb-oen.ca/other%20documents/Standardized%20Forms/>

This form provides the basis for annual reporting and format, however individual Licensees shall need to provide information in addition to that of the standard form to address project specific reporting requirements.

Water Use

The Licensee requested an increase of volume of water use from 100 m³/day under the previous licence to 299 m³/day, to allow for an increase in domestic use as well as an increase in industrial use associated with an expanded exploration drilling program, core cutting, dust control during quarrying and soil treatment, and construction of an ice strip if needed. The application requested 60 m³/day for domestic use and 239 m³/day for industrial use.

The maximum water use for the project is set at 299 m³/day as described under Part C, Item 1 of the current Licence. Water sources for drilling will be lakes adjacent to drill targets. Water source for a future new camp will be an adjacent lake, the location of which will be confirmed once a new camp location is chosen. Prior to the water source being selected, a hydrological and ecological assessment will be required along with a monitoring once uptake begins.

The NWB requires that the Licensee use proper fish screens and follow DFO's measures found at the following link to avoid causing harm to fish and fish habitat:

<http://www.dfo-mpo.gc.ca/pnw-ppe/measures-mesures/measures-mesures-eng.html>

Waste Disposal

Sewage and Wastewater

For current exploration activities, a Sewage will be disposed of with a Pacto system and incineration with backhaul ash off site, while Greywater will be discharged to a sump. The Board has included conditions under Part D for the general disposal of sewage and wastewater for immediate exploration and progressive reclamation activities.

Under the previous licence, use of a rotating biological contactor was approved. This facility has been decommissioned as part of the ongoing progressive reclamation works. Blue Star does not currently plan to use a sewage treatment plant but wishes to retain the ability to do in the future. If so, discharge criteria will be based on the generally accepted interpretation of Table 4.1 of the *Guidelines for the Discharge of Treated Municipal Wastewater in the Northwest Territories*, 1992, and to be consistent with similar licences with sewage treatment systems and discharges.

Potential wastewater generated by surface runoff at the Landfill, Soil Treatment Facility, Bulk Fuel Storage Facility, Retention Pond, Settling/Neutralization Ponds, Waste Rock storage areas, ore storage area will be monitored in accordance with Part J, with any Effluent discharged from these facilities meeting criteria set out in with Part D of the renewed Licence. Runoff from construction activities will meet effluent criteria set out in Part E, Item 15. Effluent discharge criteria for selected facilities are based on the most appropriate parameters for each facility, in combination with the Canadian Council of Ministers of the Environment (CCME), Canadian Water Quality Guidelines for the Protection of Aquatic Life. Note that, discharge limits under Part D, Item 10, for arsenic (As), lead (Pb), and total suspended solids (TSS) were updated to reflect the MDMER amendments coming into force in June 2021.

Solid Waste

Historically, waste remaining on site at the end of mine life was planned for backhaul or overland transport off site. Blue Star is now planning to construct a non-hazardous waste landfill to dispose of non-hazardous waste arising from ongoing progressive reclamation of the historic mine site, as well as a soils treatment facility to treat hydrocarbon-contaminated soil on site. Any residual waste not meeting approved disposal criteria will be backhauled for disposal off site at a suitable facility. Final design concepts are put forward in the management plans as preferred locations. Combustible non-hazardous solid waste may be incinerated.

Petroleum Hydrocarbon Contaminated Soils

The Licensee is planning the construction of a 40 m² Soils Treatment Facility for the treatment of hydrocarbon-contaminated soil, remaining on site from the previous operations. To Maintain consistency with other Licences in Nunavut, site remediation with respect to hydrocarbon contaminated soils, under Part I, Item 11, references the Government of Nunavut's Environmental Guideline for Contaminated Site Remediation (2010 or current version in place at the time of Reclamation). In addition, conditions for the installation of monitoring wells are included under Part J, Item 15.

Bulk Fuel Storage

Historically, the Ulu site included a bulk fuel storage system. This has been decommissioned as a part of ongoing progressive reclamation. Blue Star wishes to establish a new bulk fuel storage in a location more proximal to the airstrip to support more efficient fuel resupply and reduce fuel drum use and handling on site. Various fuel containment and storage options are under consideration at the time of submission of this application and include various sizes and types of tanks, bladders, containers and drums. The largest containers considered are 100,000 L and thus are included herein. It is reasonable to expect that containers will be smaller, however a final procurement decision has not yet been made.

Environmental Management Plans

The Board notes that the Application included the following environmental management plans relevant to the Licence:

- *Spill Response Plan, Ulu Gold Project*, dated January 2020;
- *Interim Closure and Reclamation Plan, Ulu Gold Project*, dated March 2020;
- *Waste Management Plan, Ulu Gold Project*, dated March 2020;
- *Soil Treatment Facility Management Plan, Ulu Gold Project*, dated March 2020;
- *Borrow Pits and Quarry Management Plan, Ulu Gold Project*, dated March 2020; and
- *Landfill Management Plan, Ulu Gold Project*, dated March 2020.

These have been approved with the issuance of this renewal Licence, under the condition that updates are made to these plans as specified below, and submitted with the 2020 Annual Report.

During the review of the Application a number of suggestions were made to update management plans and provide additional information. Specifically, it was recommended that details outlining management strategies for ARD/ML generated from existing ore and waste rock on site be included. The Board agrees with Blue Star's position in considering "*the existing approved Interim Water Management Plan, dated March 2006, to be sufficient for management of runoff from existing ore and waste rock on site.*" Blue Star also committed to developing a Waste Rock and Ore Management Plan prior to resuming operations and bringing any new rock to surface, and this has been included in the Licence under Part D, Item 16.

It was also recommended that the *Spill Response Plan, Ulu Gold Project*, include a plan of action for spills of dry chemicals, drilling fluid, and/or drilling additives. Blue Star committed to update this Plan with this information prior to the commencement of activities, and this has been included in the Licence under Part H, Item 2.

Deficiencies in the *Landfill Management Plan* were identified suggesting that it should include information on leachate monitoring and management when encountered, dust control, and more information on Operational Procedures that would typically be included in a "Operation and Maintenance Manual." The NWB agrees with Blue Star that "*the Landfill Management Plan being approved with the issuance of this Licence generally addresses operations and management aspects associated with the landfill; and that having an Operations and Maintenance Manual in addition the Landfill Management Plan would be redundant.*" However, the NWB will also require that Blue Star to work with CIRNA and the KIA to determine what specific updates can be made to the Landfill Management Plan, to address their concerns. Blue Star also noted that runoff and seepage from the Landfill will be minimal, and will be monitored in accordance with the water licence monitoring program. Monitoring Program Station ULU-15 was added to the Monitoring Program in Schedule J, to ensure that runoff and seepage (if/when observed) chemistry is monitored. In addition, updates to the Plan will include details of how leachate seepage will be managed if encountered, and how dust will be managed at the landfill, as per Part D, Item 22.

Regarding the *Soil Treatment Facility Management Plan*, it was recommended to add details regarding the related groundwater and seepage water monitoring program. Specifically, details

regarding treatment and conveyance of contact water, and the surface and groundwater monitoring program, and details about the treatment which Blue Star proposes for contact water before release to the environment are needed. This has been accounted for under licence condition Part D, Item 22, requiring these updates to the Plan.

Updates to *Interim Closure and Reclamation Plan* were also discussed, and as per Part I, Item 2 should include the following information with respect to the Landfill, that's was provided during the Application review:

- a. The expected tolerances in the grading of the final surface;
- b. Any specific surface treatment;
- c. The outlet of the effluent;
- d. The conveyance and management of the water runoff within and adjacent to the landfilled area; and
- e. Any emergency overflow criteria that were considered.

Monitoring

To ensure consistency with other comparable advanced exploration projects in Nunavut, the Board required the Licensee to establish, implement and report on the Monitoring Program outlined in Part J of the Licence. The onitoring program is similar to that of the previous Licence with the removal of monitoring related to the old and recently reclaimed Sewage treatment facility (ULU-2, ULU-3, and ULU-10) and settling ponds that were never constructed (ULU-5 and ULU-6), and the addition of monitoring at the newly proposed domestic water intake for the new camp (ULU-12), Soil Treatment Facility (ULU-13), Bulk Fuel Storage Facility (ULU-14), Landfill Facility (ULU-15), and monitoring wells for the Soil Treatment Facility (MW-1, 2, 3 etc.). Note that the chemical analysis for the water intake (ULU-1 and ULU-12) have been removed and only measurements of water volume are required. The Board advises that all Effluent discharged from all Waste and Water Management facilities shall be monitored in accordance with the monitoring program.

As with the previous Licence and consistent with other advanced exploration and mining projects, the Board has also included monitoring requirements for the run-off and/or discharge from the Retention Pond, Settling/Neutralization Ponds, Waste Rock storage areas, ore storage area, quarry sites, and active construction areas, prior to discharge to the receiving environment, in addition to the monitoring requirements associated with drilling. The NWB has maintained its position that total metals (rather than dissolved as proposed by Blue Star) shall be monitored in runoff from the waste rock and ore storage areas, as it believes this is most appropriate considering the water/effluent was generated and will remain on the surface. While groundwater monitoring wells eventually established at the Soil Treatment Facility will monitor for dissolved metals.

Under the previous Licence a *Quality Assurance/Quality Control Plan (QA/QC)*, dated June 2014 was submitted, and prepared in accordance with and in consultation with the accredited laboratory conducting the analyses, and included a cover letter from the accredited laboratory confirming approval of the Plan for analyses to be performed under this Licence. This was reviewed with the renewal of this Licence and remains applicable and acceptable.

PART A: SCOPE, DEFINITIONS AND ENFORCEMENT

1. Scope

This Licence allows for the use of Water and the disposal of Waste for a Mining undertaking classified as per Schedule 1 of the *Regulations* at the Ulu Gold Project, located approximately 220 km southeast of Kugluktuk, within the Kitikmeot Region of Nunavut.

- a. This Licence is issued subject to the conditions contained herein with respect to the taking of water and the depositing 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

“**Acid/Alkaline Rock Drainage**” means the production of acidic or alkaline leachate, seepage or drainage from underground workings, ore piles, waste rock, tailings, and overburden that can lead to the release of metals;

“**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;

“**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;

“**Average Concentration**” means the arithmetic means of any four consecutive analytical results submitted to the Board in accordance with the sampling and analysis requirements specified in the “Monitoring Program”;

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

“Bulk Fuel Storage Facility” means the fuel storage facility as described in the Application and supporting documents dated April 4, 2020;

“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 water 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*;

“Freeboard” means the vertical distance between the water surface elevation and the lowest elevation of the effective water containment crest of the dam, dyke or other containment structure;

“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;

“Minewater” means groundwater or any water used in mining, which is pumped or flows out of any underground workings or open pit;

“Minister” means the Minister of Northern Affairs Canada;

“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;

“Non-Hazardous Waste Landfill” means the proposed, new facility designed and constructed to dispose of inert waste as described in the Application dated April 4, 2020.

“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;

“Operations” in relation to the overall site means the set of activities associated with mining, ore processing and recovery of gold; excluding Construction, decommissioning and permanent Closure activities, an in relation to a specific facility refers to the active use of the facility;

“Progressive Reclamation” means those reclamation activities conducted during the operation period of the mine prior to notification of final closure, to modify and restore the land and water to standards acceptable to the Board;

“Progressive Reclamation Program” means reclamation activities conducted during the exploration period of the mine prior to notification of operations or final closure, and included within the cost estimate at the time of assignment to the current licensee, including construction, operation and closure of the Non-hazardous Waste Landfill and a Soil Treatment Facility;

“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;

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

“Retention Pond” means any natural or man-made depression designed to act as a settling facility for the purpose of separating solids from Minewater or runoff water;

“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.

“Settling/Neutralization Pond” means any natural or man-made depression designed to act as a settling facility for the purpose of separating solids from runoff water associated with the ore storage facility;

“Sewage” means all toilet wastes and greywater;

“Solid Waste” means garbage, refuse, or other discarded material resulting from operating the undertaking, excluding commercial, industrial or hazardous waste.

“Soil Treatment Facility” means an area designed to biologically treat petroleum hydrocarbon-impacted soil, as described in the Application and supporting documents received April 8, 2020.

“Soil Quality Remediation Objective” means the numerical concentration established as target value for soil quality remediation of contaminated sites as determined with guidance provided by the Canadian Council of Ministers of the Environment (CCME);

“Spill Response 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;

“Sump Above-ground” means an excavation in impermeable soil for the purpose of catching or storing fluids;

“Sump Below-ground” means an excavation for the purpose of catching or storing water in an underground working or at the bottom of a shaft;

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

“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 Rock” means all unprocessed rock materials that are produced as a result of mining operations;

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

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 Water use fees, payable to the Receiver General for Canada, shall be sent to the Board annually for the right to the use of Water in accordance with section 12 of the *Regulations*.

- The Licensee shall furnish and maintain security with the Minister under the Licence in the form in accordance with the Regulations, or that is satisfactory to the Minister, in accordance with the stages of site activity as set out below. The Licensee shall provide confirmation in writing, in a form acceptable to the Board, that the following specified reclamation security amounts have been furnished to the Kitikmeot Inuit Association in accordance with the stages of site activity as set out below:

Timing	Stage of Activity	Security held by Minister (\$)	Security held by KIA (\$)	Total security (\$)
At the time of licence renewal (May 12, 2020)	Progressive Reclamation Program, exploration	1,685,542	750,000	2,435,542
Sixty (60) days prior to construction	Quarrying	TBD	TBD	TBD
Sixty (60) days prior to the start of Operations	Operations	TBD	TBD	TBD

Note: To be determined (TBD) amounts will be determined through an amendment process and full review by interested parties.

- The Licensee shall ensure that the security held by the Minister under Part B, Item 2 is furnished and maintained in a manner that is consistent with the requirements of the *Act* and *Regulations*, and is in the form, subject to applicable terms and conditions, that is satisfactory to the Minister.
- The security held by the Kitikmeot Inuit Association under Part B, Item **Error! Reference source not found.** shall be held for the purposes of reclamation consistent with the purposes set out in s. 76(2)(b) of the Act, and the provisions of the Act and Regulations applicable to reclamation of the Mining Undertaking described in the Licence.
- The Licensee shall, at least sixty (60) days prior to resuming active operation or within sixty (60) days following a decision to proceed to active closure and reclamation of the site, provide the Board with an updated estimate of the Ulu Gold Project restoration liability using the most current version of RECLAIM, its equivalent or other similar methods approved by the Board, in accordance with the principles of INAC's "Mine Site Reclamation Policy for Nunavut" (2002).
- The Licensee shall review the financial security posted for the Project, as required by changes in operations, components and/or technology, and submit annually to the Board for review, an updated estimate of the Ulu Gold Project restoration liability using the current version of RECLAIM, its equivalent or other similar method approved by the Board, in accordance with principles of INAC's "Mine Site Reclamation Policy for Nunavut" (2002).
- The Licensee may apply to amend the amount of security required to be held under the Licence. Any submission requesting a review of 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. The security referred to in Part B, Item 2 shall be maintained until such time as the Minister is satisfied that the Licensee has complied with all provisions of the approved Final Abandonment and Restoration Plan and as it is refunded pursuant to Section 76(5) of the Act. 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.
9. Licensee shall furnish and maintain such further or other amounts of security as may be required by the Board, based upon annual estimates of current mine reclamation liability provided under Part B, Item 10.
10. The Licensee shall file an Annual Report on the appurtenant undertaking with the Board no later than March 31 of the year following the calendar year being reported, which shall contain the following information:
 - a. tabular summaries and analysis of all data collected under the Monitoring Program in Part J;
 - b. a summary of any construction work, modification and/or major maintenance work carried out on the facilities related to Water use and Waste deposit, including all associated structures, and an outline of any work anticipated for the next year;
 - c. results for samples collected on ore and waste rock as referred to in Part D, Item 15;
 - d. a list of unauthorized discharges and follow-up action taken;
 - e. updates or revisions to the Waste Management Plan, Spill Response Plan, Interim Closure and Reclamation Plan, and any other plans associated with the Licence. Revisions may be subject to Board approval;
 - f. any updates to the estimate of the restoration liability, as required under Part B, Item 5 and 6, based upon the results of the restoration research, project development monitoring, and any modifications to the site plan;
 - g. a brief description of follow-up action taken to address concerns detailed in inspection and compliance reports prepared by the Inspector;
 - h. report all artesian flow occurrences as required under Part F, Item 3;
 - i. a summary of hazardous materials shipped out, the treatment received, and the location of the approved treatment facility to which they were sent;
 - j. a summary of any abandonment and restoration work completed during the year and an outline of any work anticipated for the next year;
 - k. a summary of any specific studies or reports requested by the Board, and a brief description of any future studies planned or proposed;
 - l. a public consultation/participation report describing consultation with local organizations and residents of the nearby communities, if any were conducted; and
 - m. any other details on Water use or Waste disposal requested by the Board by the 1st of November of the year being reported.
11. The Licensee shall install and maintain flow meters or other such devices, or implement suitable methods capable of measuring Water volumes as required to comply with Part C, Item 2 and the Monitoring Program under Part J.

12. The Licensee shall post signs in the appropriate areas to inform the on-site personnel and public of the location of the facilities related to Water use and Waste deposit, and the Monitoring Program Stations. All signs shall be in English, Inuktitut, and Inuinnaqtun.
13. The Licensee shall, for all Plans, reports and studies submitted under this Licence, include an executive summary in terms understandable to the general public translated into Inuktitut and Inuinnaqtun.
14. The Licensee shall, for all Plans submitted under this Licence, include a proposed timetable for implementation and the Board recommends that a table be included with the Plan that documents the date, purpose and page(s) of the revision. 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.
15. The Licensee shall, for all Plans submitted under this Licence, implement the Plan as approved by the Board in writing.
16. 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 may become part of this Licence. All terms and conditions of the Licence should be contemplated in the development of a Plan where appropriate.
17. The Licensee shall review the Plans referred to in this Licence as required by changes in operation and/or technology and modify the Plans accordingly. Revisions to the Plan are to be submitted in the form of an Addendum to be included with the Annual Report, unless directed otherwise by an Inspector. Addendums should be accompanied with a concordance sheet that provides an overview of the changes made to the Plan.
18. 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

19. 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 and Inuinnaqtun.
20. The Licensee shall ensure that any document(s) or correspondence submitted by the Licensee to the NWB is received and acknowledged by the Manager of Licensing.
21. The Licensee shall notify the Board and Inspector of any changes in Project phases associated with this Project at least sixty (60) days prior to any such change.
22. This Licence is assignable as provided for in section 44 of the *Act*.

PART C: CONDITIONS APPLYING TO WATER USE

1. The Licensee shall obtain all Water from West Lake, or from a source proximal to a new camp location and drill locations, or as otherwise approved by the Board.
2. The quantity of Water withdrawn from all sources shall not exceed two hundred and ninety nine (299) cubic metres per day.
3. 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.
4. 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.
5. If the Licensee requires Water in sufficient volume that the source water body may be drawn down, the Licensee shall, at least thirty (30) days prior to commencement of use of water, submit to the Board for approval in writing, the following: volume required, hydrological overview of the water body, details of impacts, and proposed mitigation measures.
6. 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.
7. The Licensee shall not remove any material from below the ordinary High Water Mark of any water body unless authorized.
8. The Licensee shall not cause erosion to the banks of any water body and shall provide necessary controls to prevent such erosion.
9. 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 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.
2. The Licensee is authorized to dispose of all acceptable food Waste, paper Waste and untreated wood products in an incinerator.
3. 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.
4. The Licensee shall provide to the Board, documented authorization from the respective community, prior to the backhauling and disposal of any Waste.
5. 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.
6. 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.
7. The Licensee shall dispose of all Greywater to a sump located a distance of at least thirty-one (31) metres above the ordinary High Water Mark of any water body, at a site where direct flow into a water body is not possible and no additional impacts are created, unless otherwise approved by the Board in writing.
8. The Licensee shall dispose of all toilet Wastes through incineration, chemical or composting toilets. Any remaining residue generated through the course of the operation shall be backhauled and disposed of in an approved Waste disposal site.
9. All Effluent discharged from the Soil Treatment Facility at Monitoring Program Station ULU-13 and Bulk Fuel Storage Facility at Monitoring Program Station ULU-14, shall not exceed the following Effluent quality limits:

Parameter	Maximum Concentration of any Grab Sample (µg/L)
Benzene	370
Ethylbenzene	2
Toluene	90
Lead	1
Oil and Grease	15,000 and no visible sheen

10. All Effluent discharged from the Retention Pond and Settling/Neutralization Ponds and

runoff from the Waste Rock storage areas and ore storage area at Monitoring Program Stations ULU-4b, ULU-5, ULU-6, ULU-7 and ULU-8 shall not exceed the following Effluent quality limits:

Parameter	Maximum Average Concentration (mg/L)	Maximum Concentration of any Grab Sample (mg/L)
Total Arsenic (mg/L)	0.3	0.6
Total Copper (mg/L)	0.3	0.6
Total Lead (mg/L)	0.1	0.2
Total Nickel (mg/L)	0.5	1.0
Total Zinc (mg/L)	0.5	1.0
TSS (mg/L)	15.0	30.0
pH	6.0 to 9.5	6.0 to 9.5
Oil and Grease	No Visible Sheen	No Visible Sheen

11. All Effluent discharged from the existing Ulu pad area and its related facilities shall be directed towards East Lake in a manner such that surface erosion will be minimized.
12. The Licensee shall operate and maintain the Retention and Settling/Neutralization Ponds such that:
 - a. At least one (1) metre of Freeboard is maintained at the retention berm at all times;
 - b. Seepage from the pond is minimized at all times;
 - c. Any seepage that occurs and does not meet the Effluent quality requirements as specified in Part D, Item 11 shall be collected and immediately returned to the pond;
 - d. Any constructed facilities that are eroded are to be repaired immediately; and
 - e. Inspections of the Retention Pond and structures are carried out weekly during periods of open water and records kept of these inspections for review upon request of an Inspector.
13. The Licensee shall submit to the Board for approval, within sixty (60) days following notification of resumption of operations, in accordance with Part E, item 2, a proposal for the disposal of Effluent from the Retention Pond and Settling/Neutralization Ponds. The proposal shall include the following:
 - a. Options for discharge of Minewater/runoff water (including East Lake, if applicable);
 - b. Details on quantity and quality of the Minewater/runoff water; and
 - c. Options for treatment and disposal.
14. The Licence shall arrange for a Geotechnical Engineer to inspect the earthworks, geological regime of the Project prior to recommencing on-site operations, and annually thereafter. The Geotechnical Engineer's report shall be submitted to the Board for review within sixty (60) days of the inspection, with a cover letter from the Licensee outlining an implementation plan to respond to the Engineer's recommendations.
15. The Licensee shall submit to the Board for approval, within sixty (60) days of resuming

on-site operations, a plan for ongoing Acid Rock Drainage and Geochemical Characterization. The plan shall be developed in accordance with the Indian and Northern Affairs Canada “Guidelines for Acid Rock Drainage Prediction in the North, September 1992” and shall include the following:

- a. Implementation of recommendations in the report entitled “Ulu Project: Preliminary Assessment of acid rock drainage potential” dated October 1996, prepared by Klohn-Crippen Consultants Ltd.;
 - b. Continued field leaching testing for two years to establish long-term weathering trend;
 - c. Kinetic test work on waste rock, ore, prospective tailings to assess changes in ARD potential with depth;
 - d. Options for collection and treatment of ARD; and
 - e. An implementation schedule.
16. The Licensee shall, within sixty (60) days following notification to the Board of its decision to resume on-site operations in accordance with Part E, item 2, submit to the Board for approval in writing a Waste Rock and Ore Management Plan to address the management of all drainage from permanent and temporary ore and Waste Rock storage areas. The Plan shall include the following:
- a. A description and site map to scale, identifying the ore and waste rock storage areas, the settling pond(s) and downstream receiving areas;
 - b. A schedule of ore stockpiling, coarse tailings and waste rock production by rock type, tonnage, and destination;
 - c. An identification of all potential sources of drainage from each storage site and the distance to the downstream receiving environment;
 - d. Detailed proposal for the management of each flow, including water quality monitoring, collection, treatment, rerouting and final disposal;
 - e. Detailed construction plans and drainage management for waste rock types that may be problematic as a result of ARD testing;
 - f. Contingency plans for controlling runoff and seepage water chemistry;
 - g. Temperature analysis of all waste rock storage areas having ARD potential to include the effect of oxidation reactions on predicted ARD generation rates; and
 - h. An ARD sampling and analysis protocol for waste rock used in construction and/or stockpile areas.
17. 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.
18. The Licensee shall maintain all facilities to the satisfaction of an Inspector.
19. The Board has approved the Plan entitled *Waste Management Plan, Ulu Gold Project*, dated March 2020 that was submitted as additional information with the Application.
20. The Board has approved the Plan entitled *Landfill Management Plan, Ulu Gold Project*, dated March 2020 that was submitted as additional information with the Application.

21. The Board has approved the Plan entitled *Soil Treatment Facility Management Plan, Ulu Gold Project*, dated March 2020 that was submitted as additional information with the Application.
22. The Licensee shall submit to the Board for review updates to the Plans referred to in Part D, Items 19, 20, and 21 to address technical comments and recommendations received during the review of Application. Updated Plans should be submitted as addenda within the 2020 Annual Report or at least sixty (60) days prior to starting of respective facility operations, whichever come first.

PART E: CONDITIONS APPLYING TO CONSTRUCTION AND OPERATIONS

1. The Licensee shall, within thirty (30) days of construction of the new camp, submit to the Board and Inspector camp details, including the GPS co-ordinates (in degrees, minutes and seconds of latitude and longitude) and a topographic map, incorporating all camp facilities.
2. The Licensee shall, at least sixty (60) days prior to initiating major operational changes to the Project, notify the NWB and an Inspector of any such changes, including the resumption of active operations.
3. The Licensee shall submit to the Board for review, at least sixty (60) days prior to construction, final design and construction drawings accompanied with a detailed report for all engineered project infrastructures to include:
 - a. Design rational, 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;
 - f. Timetable for submission, including date of construction and proposed date of commissioning of infrastructure; and
 - g. Where required, signature and seal by the appropriately qualified Engineer.
4. 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 Inspector, all construction records of all engineered structures.
5. 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, a Construction Summary Report prepared by a qualified Engineer(s) to include:

- a All final design and construction drawings (must be stamped and signed by a Professional Engineer when related to an Engineered Structure).
 - 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 and detailed explanation of field decisions reflecting any deviations from original construction drawings and plans, and how such deviations may affect performance of engineered structures;
 - f Discussion of mitigation measures implemented during construction and effectiveness of measures taken;
 - g Monitoring undertaken in compliance with Part D and/or Part J of the Licence;
 - h Blast vibration monitoring for quarrying 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.
6. The Licensee shall use fill material for construction 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.
 7. The Licensee shall conduct all activities in such a way as to minimize impacts on surface drainage and shall immediately undertake corrective measures in the event of any impacts on surface drainage.
 8. The Licensee shall, for the purposes of 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.
 9. 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.
 10. 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).

11. 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.
12. 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.
13. 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.
14. 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.
15. All surface runoff during the construction of any facilities, where flow may directly or indirectly enter a water body, shall be sampled Weekly and not exceed the following Effluent quality limits:

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

PART F: CONDITIONS APPLYING TO DRILLING OPERATIONS

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, unless otherwise approved by the Board in writing.
2. The Licensee shall dispose of all drill waste, including water, chips, muds and salts (CaCl₂) 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.
3. The Licensee shall, upon the completion of drilling, immediately seal and permanently cap drill holes 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.

4. 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.
5. Drilling additives or mud shall not be used in conjunction 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.
6. 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. 10mg/L for lakes with background levels under 100 mg/L, or 10% for those above 100mg/L).
7. The Licensee shall establish Water quality conditions prior to and upon completion of any drilling program through lake ice.

PART G: CONDITIONS APPLYING TO MODIFICATIONS

1. The Licensee may, without written consent from the Board, carry out Modifications to the 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.
2. 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.
3. 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 FOR SPILL CONTINGENCY PLANNING

1. The Board has approved the Plan entitled *Spill Response Plan, Ulu Gold Project*, dated January 2020, which was submitted as additional information with the Application.

2. The Licensee shall submit to the Board for review updates to the Plan referred to in Part H, Item 1 to address technical comments and recommendations received during the review of Application, including an action plan for spills of dry chemicals, drilling fluid, and/or drilling additives. Updates to the Plan shall be submitted as an addendum within the 2020 Annual Report.
3. The Licensee shall ensure that any chemicals, petroleum products or wastes associated with the project do not enter 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 provide secondary containment for hazardous materials and fuel storage areas.
5. 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.
6. The Licensee shall regularly inspect fuel tanks and connectors for leaks and movement and shall keep a written log of inspections to be made available to an Inspector upon request.
7. 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 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.
8. The Licensee shall, in addition to Part H, Item 7, 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 Board has approved the plan entitled *Interim Closure and Reclamation Plan, Ulu Gold Project*, dated March 2020 that was submitted as additional information with the Application.
2. The Licensee shall submit to the Board for review updates to the Plan referred to in Part I, Item 1 to address technical comments and recommendations received during the review of Application. Updates to the Plan shall be submitted as an addendum within the 2020 Annual Report.

3. The Licensee shall, at least twelve (12) months prior to the expected end of planned mining, submit to the Board for approval in writing, a Final Abandonment and Restoration Plan, prepared in accordance with the “*Guidelines for the Closure and Reclamation of Advanced Mineral Exploration and Mine Sites in the Northwest Territories*”, issued by the Mackenzie Valley Land and Water Board (MVLWB) and Aboriginal Affairs and Northern Development Canada (AANDC) in 2013 (MVLWB/AANDC 2013) and consistent with the *Mine Site Reclamation Policy for Nunavut, 2002*.
4. The Licensee shall complete all restoration work prior to the expiry of this Licence.
5. The Licensee shall carry out progressive reclamation of any components of the project no longer required for the Licensee’s operations.
6. The Licensee shall backfill and restore all sumps to the pre-existing natural contours of the land.
7. The Licensee shall remove from the site infrastructures and site material, including but not limited to, all fuel caches, drums, barrels, buildings and contents, water pumps and lines, material and equipment before the expiry of this Licence.
8. All roads and airstrip shall be re-graded to match natural contours.
9. All culverts shall be removed and the drainage opened up to match the natural channel.
10. 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.
11. 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 version or current version in place at the time of Reclamation). 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.
12. The Licensee shall restore all drill holes and disturbed areas to natural conditions immediately upon completion of the drilling or trenching. 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.
13. 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.
14. The Licensee may store drill cores 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.

15. To the extent practical, all disturbed areas shall be contoured and stabilized upon completion of work and restored to a pre-disturbed state.

PART J: CONDITIONS APPLYING TO THE MONITORING PROGRAM

1. The Licensee shall comply with the Monitoring Program annexed to this Licence as Schedule J, and any amendments to it as may be made from time to time, pursuant to the conditions of this Licence.
2. The Licensee shall install signs that identify Monitoring Program Stations. All signs must be in English, Inuktitut, and Inuinnaqtun and shall be located and maintained to the satisfaction of an Inspector.
3. The Licensee shall measure and record, in cubic metres, the daily quantities of water utilized for all purposes.
4. 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.
5. The Licensee shall provide the GPS co-ordinates (in degrees, minutes and seconds of latitude and longitude) of all locations where wastes associated with camp operations and exploration activities are deposited.
6. The Licensee shall, prior to the release of Effluent from Monitoring Stations ULU-4b, ULU-5, ULU-6, ULU-7 and ULU-8 for the purpose of demonstrating compliance, sample for the parameters listed under Part D, Item 10.
7. 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.

8. 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 7.
9. 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.
10. 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.
11. All analyses shall be performed in a laboratory accredited according to ISO/IEC Standard 17025. The accreditation shall be current and in good standing.
12. The Board accepts the Plan entitled *Ulu Gold Project Nunavut, Canada Quality Assurance and Quality Control Plan Water Quality Sampling*, dated June 2014, along with the cover letter from an accredited laboratory confirming acceptance of the Plan for analyses to be performed under this Licence.
13. The Licensee shall annually review the QA/QC plan submitted under Part J, Item 8 and modify it as necessary. Revised plans shall be submitted to the NWB with an approval letter from an accredited, and lab meets standards set in Part J, Item 10 and Part J, Item 11.
14. For all months during which there is activity on site, a Monthly Monitoring Program Summary Report shall be submitted to the Board for review within thirty (30) days following the month being reported. This summary shall include the monitoring results collected according to the Monitoring Program.
15. The Licensee shall install groundwater monitoring wells at the Soil Treatment Facility in accordance with Schedule J.
16. The Licensee shall include in the Annual Report required under Part B, Item 10, all data, monitoring results, and information required by this Part.
17. Additional monitoring may be requested by the Inspector.

Schedule J – Monitoring Program

Station ID	Station Description	Sampling Frequency (Active Site)	Sample Frequency (Inactive Site)	Required Analysis
ULU-1 (Previously 100-1)	Water Intake at West Lake	Daily Volume;	Daily volume, if in use;	Volume (m ³)
ULU-2 (previously 200-1)	Sewage Effluent Discharge Point at East Lake or to land with indirect flow to East Lake	Inactive due to the decommissioning of the Sewage Treatment Plant	Inactive due to the decommissioning of the Sewage Treatment Plant	Volume (m ³) Fecal Coliforms, Total Suspended Solids, BOD ₅ pH Total Phosphorous Total Dissolved Phosphorus Total Nitrogen Nitrate Nitrite Total Kjeldahl Nitrogen
ULU-3	Sludge removed from Sewage Treatment Facility	Inactive due to the decommissioning of the Sewage Treatment Plant	Inactive due to the decommissioning of the Sewage Treatment Plant	Volume (m ³) Chemical characterization required to determine suitable disposal method for Sludge.
ULU-4	Minewater pumped from underground Mine Sump	Monthly	When Pumping Occurs	Volume (m ³)
ULU-4b	Surface Retention Pond	Prior to discharge and weekly during discharge.	Prior to discharge.	Volume (m ³) Total Arsenic Total Copper Total Nickel Total Mercury Total Cadmium Total Lead Total Zinc Total Suspended Solids pH Conductivity

				Chloride Sodium Calcium
ULU-5 (previously 200-2)	Settling/ Neutralization Pond 1 (Inactive, pond never constructed)	Monthly during open water season, prior to discharge, and weekly during discharge.	Twice annually during open water season and prior to discharge	Volume (m ³) Total Arsenic Total Copper Total Nickel Total Mercury Total Cadmium Total Lead Total Zinc Total Suspended Solids pH Conductivity Chlorine Sodium Calcium
ULU-6 (previously 200-3)	Settling/ Neutralization Pond 2 (Inactive, pond never constructed)	Monthly during open water season, prior to discharge, and weekly during discharge.	Twice annually during open water season and prior to discharge	Volume (m ³) Total Arsenic Total Copper Total Nickel Total Mercury Total Cadmium Total Lead Total Zinc Total Suspended Solids pH Conductivity Chlorine Sodium Calcium
ULU-7	Runoff from the waste rock storage area	Monthly during periods of flow.	Annually during open water period if flow is present	Volume (m ³) Total Arsenic Total Copper Total Nickel Total Mercury

				Total Cadmium Total Lead Total Zinc Total Suspended Solids pH Conductivity Chlorine Sodium Calcium Alkalinity Sulphate Turbidity TDS Ammonia Nitrate Nitrite
ULU-8	Runoff from the ore storage area	Monthly during periods of flow.	Annually during open water period if flow is present	Volume (m ³) Total Arsenic Total Copper, Total Nickel Total Mercury Total Cadmium, Total Lead Total Zinc Total Suspended Solids pH Conductivity Alkalinity Chloride Sulphate Turbidity TDS Ammonia Nitrate Nitrite

ULU-9 (previously 200-4)	Outflow East Lake	Monthly during open water season. Weekly during open water season, if receiving discharge from ore runoff collection ponds.	Annually during open water period when discharge to East Lake is planned	Total Arsenic Total Copper Total Nickel Total Mercury Total Cadmium Total Lead Total Zinc Total Suspended Solids pH Fecal Coliforms
ULU-10 (previously 200-5A)	Inflow Ulu Lake from East Lake	Inactive due to the decommissioning of the Sewage Treatment Plant	Inactive due to the decommissioning of the Sewage Treatment Plant	Fecal Coliforms Total Suspended Solids BOD5 pH Total Phosphorus, Total Dissolved Phosphorus Total Nitrogen Nitrate Nitrite Total Kjedahl Nitrogen
ULU-11 (previously 200-5)	Outflow Ulu Lake	Monthly during open water season. Weekly during open water season, if receiving discharge from ore runoff collection ponds.	Annually during open water period when discharge to East Lake is planned	Total Arsenic Total Copper Total Nickel Total Mercury Total Cadmium Total Lead Total Zinc Total Suspended Solids pH Fecal Coliforms
ULU-12	Domestic Water Intake for new camp	Daily Volume; Water	Daily volume, if in use;	Volume (m ³)
ULU-13	Soil Treatment Facility water holding pond	Prior to discharge	Prior to discharge	Volume (m ³) BETX F1 to F4 Total Arsenic

				Total Copper Total Nickel Total Mercury Total Cadmium Total Lead Total Zinc Total Suspended Solids pH Alkalinity Chloride Sulphate Turbidity Conductivity Total suspended solids Ammonia Nitrite Nitrate
ULU-14	Bulk Fuel Storage Facility	Prior to discharge	Prior to discharge	Volume (m ³) BETX F1 to F4 Total Arsenic Total Copper Total Nickel Total Mercury Total Cadmium Total Lead Total Zinc Total Suspended Solids pH Alkalinity Chloride Sulphate Turbidity Conductivity Total Suspended Solids Ammonia

				Nitrite Nitrate
ULU-15	Landfill Facility	When runoff or seepage is observed	When runoff or seepage is observed	Volume (m ³) BETX F1 to F4 Total Arsenic Total Copper Total Nickel Total Mercury Total Cadmium Total Lead Total Zinc Total Suspended Solids pH Alkalinity Chloride Sulphate Turbidity Conductivity Total Suspended Solids Ammonia Nitrite Nitrate
Monitoring wells MW-1, MW-2, MW-3, etc.	Monitoring wells established at Soil Treatment Facility	Twice annually at each the start and end of the open water season, while the Facility is in Operation.	-	Dissolved Arsenic Dissolved Copper Dissolved Nickel Dissolved Mercury Dissolved Cadmium Dissolved Lead Dissolved Zinc pH Conductivity Alkalinity Chloride Sulphate Turbidity

				TDS Ammonia Nitrate Nitrite
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Note:

The pH, temperature, and specific conductivity of the sample shall be recorded at the time of sampling.