June 23, 2017

File No: Jericho Mine Site Stabilization Project/
Re-issued Letter of Decision

Mark Yetman
Project Manager
Lands and Contaminated Sites, Nunavut Regional Office
Indigenous and Northern Affairs Canada
P.O. Box 2200
Iqaluit, NU X0A 0H0

By Email: Mark.Yetman@aadnc-aandc.gc.ca

Re: Nunavut Water Board's Letter of Decision In Respect of Proposed Water Use and Waste Deposit Associated with the Jericho Mine Site Stabilization Project

Dear Mr. Yetman,

Further to the Nunavut Water Board's (NWB or Board) correspondence of May 16, 2017, the NWB is reissuing the "Letter of Direction" as a "Letter of Decision", to Indigenous and Northern Affairs Canada (INAC). This reissued letter replaces the previous letter and includes all the changes specifically listed, for ease of reference, in the Notice of Errata.

On January 30, 2017, Indigenous and Northern Affairs Canada (INAC) submitted a letter to the Nunavut Water Board (NWB or Board) advising the Board of INAC's plans to undertake in 2017, the Jericho Mine Site Stabilization Project at the Jericho Diamond Mine (the Site Stabilization Project) under the Minister's powers to take all reasonable measures to prevent, counteract, mitigate or remedy potential adverse effects from the mine under s. 89 of the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*, S.C. 2002, c. 10 (NWNSRTA) which states:

> *89 (1) Where the Minister believes, on reasonable grounds, that*
> *(a) a person has closed or abandoned, temporarily or permanently, a work related to the use of waters or the deposit of waste in Nunavut, except in a national park, and*
> *(b) either*
> *(i) the person has contravened any condition of a licence or any provision of this Part or the regulations, whether or not the condition or provision relates to the closure or abandonment, or*
> *(ii) the past operation of the work or its closure or abandonment may cause a danger to persons, property or the environment,*

> *the Minister may take any reasonable measures to prevent, counteract, mitigate or remedy any resulting adverse effect on persons, property or the environment and may, for that purpose, enter any place in Nunavut, other than a place that is designed to be used and is being used as a permanent or temporary private dwelling-place.*

It should be noted that the NWB does not have a defined role with respect to approving the specific measures undertaken pursuant to s. 89 of the NWNSRTA, however, as INAC has noted, the *Agreement Between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in right of Canada* (Nunavut Agreement) provides that all water uses in the Nunavut Settlement Area are subject to some form of approval by the NWB. Given that the proposed Site Stabilization Project will involve several types of water use, the NWB has therefore reviewed and considered the proposed Site Stabilization Project to determine whether the proposed water uses are consistent with the objects of the Board as set out in s. 35 of the NWNSRTA:

> *35 The objects of the Board are to provide for the conservation and utilization of waters in Nunavut, except in a national park, in a manner that will provide the optimum benefit from those waters for the residents of Nunavut in particular and Canadians in general.*

Accordingly, on February 15, 2017, the Board initiated a thirty (30) day comment period with respect to the use of Water and deposit of Waste aspects of the Site Stabilization Project.

BOARD DECISION

As outlined in more detail in the sections of this Letter of Decision reviewing the Background and Procedural History associated with the Board's consideration of this matter, after reviewing the submissions provided by the Proponent, considering the written submissions provided by interested parties and the public, and based on the NWB's own technical review of the proposed Site Stabilization Project, the NWB has determined that, if the proposed uses of Water and deposits of Wastes connected to the Site Stabilization Project are undertaken in a manner that is consistent with the terms and conditions attached to this Letter of Decision, the Site Stabilization Project will be consistent with the objects of the Board. Consequently, the Board, by way of Motion #: 2017-02-A1-04 approves the use of Water and deposit of Waste associated with INAC's proposed Site Stabilization Project when conducted in accordance with the terms and conditions that are attached to this Letter of Decision.

It should be noted that if, while INAC is carrying out the Site Stabilization Project, INAC is unable to meet the attached terms and conditions as recommended by the Board, the Proponent should advise the Board in writing immediately. The Board would then consider whether the term or condition can be revised in a way that would ensure compliance by INAC and that would also ensure the use of Water and deposit of Waste can continue in a manner that meet the objects of the Board. If a modification of the term or condition is not advisable, the Board would then consider whether the failure to meet the applicable term or condition would warrant the Board revisiting their conclusion that the use of Water and deposit of Waste aspects of the Site

Stabilization Project are consistent with the objects of the Board.

BACKGROUND

The Jericho Diamond Mine is located approximately 250 km southeast of Kugluktuk, Nunavut. Initially opened in 2006 by Tahera Diamond Corporation (Tahera), the mine went through bankruptcy proceedings and Shear Diamonds (Nunavut) Corp. took over the mine site in 2010. Though Shear Diamonds (Nunavut) Corp. did not actively mine, they reprocessed kimberlite stockpiles to recover diamonds from the existing stockpiles established during Tahera's tenure.

In September of 2012, Shear suspended operations. In 2012 it was determined that Shear Diamonds (Nunavut) Corp. had stopped maintaining the Mine site, at which time, under the authority of section 89 of the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* S.C. 2002, c. 10 (NWNSRTA or Act), the Minister of Aboriginal Affairs and Northern Development Canada (as the Ministry was referenced then, now referred to as Indigenous and Northern Affairs Canada (INAC) decided to intervene in the Jericho Diamond Mine, determining that the site had been abandoned by Shear. Since 2012, the Northern Contaminated Sites Program (under INAC) has continued to act under the authority provided for in ss. 89 and 87 of the NWNSRTA to conduct care and maintenance activities to prevent, counteract and mitigate adverse impacts at the site.

In 2016, INAC proposed to mobilize to the mine site in May of 2017 to undertake various activities as proposed in the Jericho Mine Site Stabilization Project Proposal (Site Stabilization Project). The proposed activities are expected to be completed by October 2017, with the site demobilization scheduled for October 2018. An overview of the proposed Site Stabilization Project is as follows:

1. Creating a Pit Lake – Removing the C1 Diversion in order to increase the amount of water flowing to the open Pit. It is expected that with a flow of 328,000 m^3/year, the Pit will be filled in about 11-15 years. Stabilization plans will include the construction of a channel for future water flow out of the pit and into the open environment. It is expected that the water quality will be measured periodically and treated if required, reflecting the potential risks associated with the possible presence of Uranium exceeding background levels in the water;

2. Processed Kimberlite Containment Area (PKCA) - Prevent fine tailings dispersion, due to high winds, by covering the fine tailings in Cell A with coarser tailings;

3. Prevent the build-up of water – Breach Divider Dyke A and breach the West Dam (estimated at 210,000 cubic meters) in order to prevent the build-up of water;

4. Cleaning and dismantling some of the fuel tanks;

5. Shipping metal contaminated soils off-site for disposal, and consolidate fuel contaminated soils on-site in a bermed area; and

6. Sorting, packaging, incinerating and/or shipping hazardous materials off-site for

disposal.

No work has been planned, as part of the Site Stabilization Project, for dismantling, reclamation or remediation of the Airstrip, Roads, Buildings, and Debris on site.

PROCEDURAL HISTORY

Land Use Planning and Impact Assessment Requirements

The Board notes that prior to the NWB's consideration of the Site Stabilization Project, the Project was submitted as a project proposal to the Nunavut Planning Commission (NPC) to assess conformity with existing land use plans. On September 30, 2016 the NPC determined that the project proposal was outside the area of an applicable regional land use plan (NPC File No.: 148350), and the Project Proposal was then referred to the Nunavut Impact Review Board for screening.

On December 22, 2016 the Nunavut Impact Review Board issued the Screening Decision Report (NIRB File No.: 00MN059). Consequently, the applicable conformity and project assessment requirements associated with the project under 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*, S.C. 2013, c. 14, s. 2 have been completed. To ensure the Board had solicited comments from all interested members of the public and intervening parties, public notice of this project was given and interested persons were invited to make representations to the NWB about the Site Stabilization Project.

Nunavut Water Board Procedural History

The Nunavut Water Board (NWB) received the supporting information for this file, on September 9, 2016 – January 30, 2017. The submissions consisted of the following documents:

- *Crown Land Use Permit Application – Jericho Mine Site Stabilization Project dated September 9, 2016, submitted September 29, 2016*
- *Kitikmeot Inuit Association Access to Inuit Owned Land Permit-Jericho Mine Site Stabilization Project dated September 9, 2016, submitted September 29, 2016*
- *Nunavut Impact Review Board (NIRB) Part 1 and 2 Application – Jericho Mine Site Stabilization Project dated September 9, 2016, submitted September 29, 2016*
- *Nunavut Water License Application – Jericho Mine Site Stabilization Project dated September 9, 2016, submitted September 29, 2016*
- *Environmental Impacts From Winter Road Water Withdrawal dated August 4, 2016, and submitted October 17, 2016*
- *E-mail, Fwd: Jericho Mine Site Stabilization Project, October 14, 2016*
- *Jericho Stage Storage Curve-IAAE E-mail, October 17, 2016*
- *E-mail, Fwd: Jericho Mine Site Stabilization Project, October 17, 2016*
- *Fwd: Jericho Mine Site Stabilization Project - 8BC-JER---, October 24, 2017*
- *E-mail, Fwd: Jericho Mine Site Stabilization Project - 8BC-JER---- ,October 26, 2017*
- *E-mail, UPDATE: Jericho Mine Site Stabilization Project - 8BC-JER----, January 6,*

2017

- *Slides, Jericho Project Reference Document, January 13, 2017*
- *Letter, Jericho Diamond Mine – Site Stabilization Plan, January 30, 2017*
- *E-mail, Jericho Diamond Mine Site Stabilization Plan - Section 89 of the NWNSRTA, February 14, 2017*
- *8BC-JER---- NWB to INAC Jericho Site Stabilization, dated February 15, 2017*

Following a preliminary internal review of the submitted documents and receipt of additional information, the NWB on February 15, 2017, initiated a thirty (30) day public review and comment period with the deadline for submissions set for March 15, 2017. During the comment period submissions were received from Environment and Climate Change Canada (ECCC), Fisheries and Oceans Canada (FOC), and Indigenous and Northern Affairs Canada – Northern Water Resources Division (INAC – NWRD).

Specifically, the public and interested parties, including the Kitikmeot Inuit Association, Environment and Climate Change Canada and Fisheries and Oceans Canada were invited to provide the Board with their comments regarding but not limited to the following activities:

- The removal of the C1 Diversion, the filling of the open Pit, and subsequent discharge to the receiving environment;
- Covering the fine tailings in Cell A with coarse tailings in order to prevent dispersion by wind;
- Discharge from the tailings area;
- The breach of Dyke A and the West Dam in order to prevent the build-up of water;
- Cleaning, dismantling and disposing (within a landfill) the fuel tanks;
- Shipping metal contaminated soils off-site for disposal, and consolidate fuel contaminated soils on-site in a bermed area;
- Sorting, packaging, incinerating and/or shipping hazardous materials off-site for disposal, and
- Any other issues the parties consider relevant to the Board's consideration of the proposed water use and deposit of waste under the Site Stabilization Plan.

In the section that follows, the NWB has, for ease of reference, provided a summary of the comments received from Environment and Climate Change Canada (ECCC), Fisheries and Oceans Canada (FOC), and Indigenous and Northern Affairs Canada, Northern Water Resource Division (INAC - NWRD). However, the NWB strongly recommends that the Proponent (Indigenous and Northern Affairs Canada - Northern Contaminated Sites Program) consult the comments received and the issues identified as stated in the submissions provided by the parties. This information is attached to this letter for consideration. Furthermore, the Board has placed all information associated with this file and received to date, on its public registry, available from the following link:

ftp://ftp.nwb-oen.ca/registry/11%20WITHDRAWN%20RETURNED/8BC-JER----%20MSP/

The following is a summary of the comments received:

ECCC recommended the following:

1. The Proponent should develop an Erosion and Sediment Management Plan that specifically addresses the realignment of the diversion channel for both inflow and outflow sections.
2. The Proponent should complete monitoring of the open pit water quality and should model the closure water quality early in the pit filling process in order to detect potential issues with water quality in time to develop robust treatment contingency plan, if required.
3. In advance of water release into Carat Lake, the Proponent should define acceptable water quality standards for release to Carat Lake.
4. Over a period of time, the Proponent should estimate flow volumes and use this in designing the spill way out of Cell C, through to the West Dam.
5. Sufficient armouring should be put into place, so as to prevent weathering and/or erosion for coarse kimberlite in the Processed Kimberlite Containment Area.
6. The Proponent should identify how the short and long-term recommendations made in Section 5 of the Environmental Screening Report will be addressed and identify how the effectiveness of the proposed mitigation measures will be evaluated.
7. All camp wastewater should be treated in compliance with the *Fisheries Act* 36(3), prior to disposal.
8. The Proponent should develop a Landfill Management Plan that identifies management and disposal of any liquids from the landfarm.
9. The Proponent should call the 24 Hour NWT/NU Spill Report Line rather than the Environment Canada phone number, currently listed in Section 7 of the Interim Spill Contingency Plan.

DFO recommended the following:

1. That the project should follow the DFO's procedures entitled: *Measures to Avoid Causing Harm to Fish and Fish Habitat.* These recommended mitigation measures will help prevent serious harm to fish in the receiving environment.

INAC-NWRD recommended the following:

1. That if water quality criteria are not met within the pit prior to discharge/outflow, INAC should implement active treatment of the pit water before release into the environment, rather than simply routing the outflow through shallow ponds and wetland. This measure of active treatment is recommended so as to limit the negative impacts on the receiving environment and specifically, Carat Lake

BOARD AUTHORIZATION OF THE JERICHO MINE SITE STABILIZATION PROJECT: USE OF WATER AND DEPOSIT OF WASTE

Although as noted above, the NWB does not have a defined role with respect to approving the specific measures undertaken pursuant to s. 89 of the NWNSRTA, given that the proposed Site Stabilization Project will involve several types of water use, the NWB has therefore reviewed and considered the proposed Site Stabilization Project to determine whether the proposed water uses are consistent with the objects of the Board as set out in s. 35 of the NWNSRTA.

The Board has concluded that if the Site Stabilization Project is conducted in accordance with the attached terms and conditions, the use of Water and deposit of Waste associated with the Project meets the objects of the NWNSTRA and these water uses and deposits of waste are approved by the Board.

SIGNED this 23rd day of June 2017 at Gjoa Haven, NU.

If you have any questions or require further information with respect to this matter, please contact the Board's Executive Director, Stephanie Autut by email at stephanie.autut@nwb-oen.ca or by phone at (867) 360-6338, Ext. 22.

Sincerely,

Thomas Kabloona
Nunavut Water Board
Chair

TK/ce/ip

Enclosure: Jericho Mine Stabilization Site Project, NWB Terms and Conditions

Comments – INAC, ECCC, DFO

Cc: Kitikmeot Region Distribution List
Geoff Clark, KIA
Emily Nichol, ECCC
Martyn Curtis, DFO
Public Registry

Jericho Mine Site Stabilization Project

Terms and Conditions

Attached to the Nunavut Water Board's Letter of Decision, Dated June 23, 2017

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PART A: SCOPE AND DEFINITIONS

1. Scope

These terms and conditions are applicable to the use of Water and deposit of Waste at the Jericho Diamond Mine as described in the Jericho Mine Site Stabilization Project, proposed by Indigenous and Northern Affairs Canada under s. 89 of the Act, in the Kitikmeot Region, Nunavut.

a. The use of Water and deposit of Waste associated with the Jericho Mine Site Stabilization Project is to be carried out in compliance with these terms and conditions, unless otherwise approved by the Board in writing.
b. However, compliance with these terms and conditions does not absolve the Proponent from any additional responsibilities for compliance with the requirements of all applicable Federal, Territorial and Municipal legislation.

2. Definitions

The following are defined terms used in the terms and conditions applicable to the **Jericho Mine Site Stabilization Project:**

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

"**Appurtenant Undertaking**" means an undertaking in relation to which a use of Water or a deposit of Waste is permitted by an Approval issued by the Board;

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

"**Care and Maintenance**" in respect of a mine, means when the licensee ceases production or commercial operation for an undefined period of time;

"**Commercial Operation**" with respects to a mine, means an average rate of production is equal to or greater than 25 % of the design rated capacity of the mine over a period of 90 consecutive days;

"**Construction**" means any activities undertaken to construct or build any component of, or associated with, the development of the Jericho Diamond Project, as described in the Summary Document, Appendices and Addendum information submitted to the Board throughout the regulatory process;

"**C1 Diversion**" means the engineered structures designed to divert waters and includes the C1 Diversion Dyke/Dam as described in the document titled "Site Water Management" prepared by SRK Consulting, August 2004 and illustrated in Drawing Numbers: 1CT004.06-W-2 dated July 2004 and 1CT004.06-W-3 dated July 2004;

"**Deposit**" means the placement of waste rock, Processed Kimberlite or other solids materials on land or in water;

"**Discharge**" means the release of any water or waste to the receiving environment;

"**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*;

"**Final Discharge Point**" means the point at which the Proponent no longer exerts care and/or control over the quality and/or quantity of the effluent from a treatment process;

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

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

"**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);

"**Hazardous Waste**" means Waste classified as "hazardous" by Nunavut Territorial or Federal Legislation, or as "dangerous goods" under the *Transportation of Dangerous Goods Act* at the time of clean-up;

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

"**Kimberlite**" refers to the Jericho Kimberlite pipe with a length of ~300m, a width of up to 100m and a depth of at least 350m that was formed from multiple emplacement events;

"**Landfarm**" means a lined, engineered area designed to contain and treat, using bioremediation, hydrocarbon impacted sediment and soil;

"**Landfill**" means a facility, designed to permanently contain inert solid waste materials;

"**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;

"**Monitoring Program**" means a program established to collect data on surface Water and groundwater quality to assess impacts to the environment of an appurtenant undertaking.

"**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 made pursuant to that agreement;

"**Pit Water**" means the water that seeps into and or is collected within the open pit;

"**Processed Kimberlite**" means material (solid/liquid), considered to have no current value, which is rejected from the process plant after the recoverable minerals have been extracted;

"**Processed Kimberlite Containment Area (PKCA)**" means the containment basin and the engineered structures that are designed to contain the Fine Processed Kimberlite

"**Proponent**" means Indigenous and Northern Affairs Canada responsible for undertaking the Jericho Mine Site Stabilization Project;

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

"**Regulations**" means the *Nunavut Waters Regulations,* SOR 2013/669;

"**Sewage**" means all toilet Wastes and Greywater;

"**Solid Waste**" means non-hazardous Waste;

"**Spill Contingency Plan**" means a Plan developed to deal with unforeseen petroleum and hazardous materials events that may occur during the Jericho Mine Site Stabilization Project;

"**Sump**" means an excavation in impermeable soil for the purpose of catching or storing Water or Waste;

"**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;

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

"**West Dam**" means the embankment water retaining infrastructure utilizing a central frozen core backed by a geosynthetic clay lining.

PART B: GENERAL CONDITIONS

1. The Proponent shall file an Project Update Summary Report on the Appurtenant Undertaking with the Board no later than the 31st of March of the year following the calendar year being reported, containing the following information:

    a. The monthly and annual quantities of incinerated waste (as a weight or volume) deposited on-site;
    b. Details on the characterization of soils treated on-site or shipped out;
    c. The monthly and annual quantities (in cubic metres) of any effluent discharge;
    d. A summary of all waste backhauled to any community in Nunavut as recommended under Part D, Item 2;
    e. The GPS co-ordinates (in degrees, minutes, and seconds of latitude and longitude) of all locations where Water used for the Project is withdrawn and any Wastes associated with the Project are deposited;
    f. A summary of any construction work, modification and major maintenance work (including as-built drawings) carried out under the Jericho Mine Site Stabilization Project;
    g. Tabular summaries for all data and information generated under the "Monitoring Program";
    h. An analysis of data collected during the "Monitoring Program" and a brief description of any future studies planned by the Proponent;
    i. A summary of any studies requested by the Board that relate to Waste disposal, and a brief description of any future studies planned;
    j. A list of unauthorized discharges and summary of follow-up actions taken;
    k. If applicable, a description of any trenches and sumps excavated, including but not limited to the following: GPS coordinates, dimensions, depth below active layer, and secondary containment features;
    l. A public consultation/participation report describing any consultation with local organizations and the residents of the nearby communities;
    m. An executive summary in English and in Inuktitut of all plans, reports, or studies conducted under Jericho Mine Site Stabilization Project; and
    n. Any other details on the use of Water or Waste disposal requested by the Board by the 1st of November of the year being reported.

2. The Proponent can review and modify, if necessary, the Plans originally provided as part of the Jericho Mine Site Stabilization Project, if changes in operation, implementation and/or technology are required. However, the Proponent 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 changes.

3. A summary of revisions to the Plans or changes to the Project conditions should also be included with the Update Summary Report required under Part B, Item 1.

4. The Proponent is recommended to ensure that a copy of these terms and conditions is kept at the site of operations at all times. Any communication with respect to these terms and conditions is recommended to be made in writing to the attention of:

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

5. The Proponent is recommended to submit one paper copy and an electronic copy of all reports, studies, and plans to the Board. Reports or studies submitted to the Board by the Proponent should include a detailed executive summary in Inuktitut.

6. The Proponent should ensure that any document(s) or correspondence submitted by the Proponent to the NWB is received and acknowledged by the Manager of Licensing.

PART C: CONDITIONS APPLYING TO THE USE OF WATER AND WATER MANAGEMENT

1. The Proponent is recommended to obtain water from Carat Lake for camp purposes as described in the submitted documents. The maximum quantity of water allowed for all purposes (including camping and sampling purposes) is limited to fifteen (15) cubic metres per day.

2. In accordance with these terms and conditions, the Proponent is authorized to use water during the removal of the C1 Diversion, for the purpose of filling of the open Pit, and eventual subsequent discharge to the receiving environment.

3. The Proponent is required to determine and record the GPS co-ordinates (in degrees, minutes and seconds of latitude and longitude) of all locations where water is used and include this information in the Project Update Summary Report as set out under Part B, Item 1(e).

4. The Proponent is recommended to install flow meters or other such devices, or implement suitable methods for measuring volumes of water. These measures may include providing water volume calculations based on water level.

5. The Proponent is required to measure and record in cubic metres, the daily quantities of Water used.

6. The Proponent should equip all water intake hoses with a screen of an appropriate mesh size to ensure that there is no entrainment of fish and to withdraw water at a rate such that fish do not become impinged on the screen.

7. The Proponent should not remove any material from below the ordinary high water mark of any water body unless authorized.

8. If the Proponent requires water in sufficient volume that the source water body may be drawn down, the Proponent is required to submit to the Board (for approval in writing), at least thirty (30) days prior to commencement of the use of water, the following: 1) volume required; 2) hydrological overview of the water body; 3) details of impacts; and 4) proposed mitigation measures.

9. Sediment and erosion control measures should be implemented prior to and maintained during the undertaking to prevent entry of sediment into water.

PART D: CONDITIONS APPLYING TO THE DEPOSIT OF WASTE AND WASTE MANAGEMENT

1. Treated Effluents should be discharged as described in Part D, Items 6, and all subsequent areas designated for Waste disposal should be located 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.

2. The Proponent is recommended to provide to the Board, for the Board's records, documented authorization from any community in Nunavut receiving backhauled wastes from the Jericho Mine Site Stabilization Project.

3. The Proponent is recommended to maintain records of all Waste backhauled and records of confirmation of proper disposal of backhauled Waste and include this information within the Project Update Summary Report required under Part B, Item 1.

4. The Proponent is recommended to provide notice to an Inspector at least ten (10) days prior to initiating any decant or discharge of any waste.

5. The Proponent may consolidate and treat Petroleum Hydrocarbon Contaminated Soil in a bermed area or as otherwise approved by the Board in writing.

6. Effluent discharged from the Processed Kimberlite Containment Area (PKCA) should not exceed the following discharge limits:

Parameter	Maximum Allowable Concentration
pH	6.0 to 8.8 (pH units)
Total Suspended Solids (TSS)	25 mg/L

Total Dissolved Solids (TDS)	4000 mg/L
Chloride - Cl	1000 mg/L
Total (T) - Al	3.0 mg/L
Dissolved (D)-Al	2.0 mg/L
T-As	0.1 mg/L
T-Cd	0.0024 mg/L
T-Cr	0.17 mg/L
T-Cu	0.04 mg/L
T-Pb	0.02 mg/L
T-Mo	1.5 mg/L
T-Ni	0.1 mg/L
U	1.0 mg/L
T-P	0.4 mg/L
T-Zn	0.50 mg/L
NH_3-N	12 mg/L
T-NO_3-N	56 mg/L
T-NO_2-N	5 mg/L
Biological Oxygen Demand (5 days) BOD_5	25 mg/L
Oil and Grease	5.0 mg/L
Fecal Coliforms	20 mg/L
Total Extractable Hydrocarbons	6 mg/L
Benzene	370 µg/L
Ethylbenzene	90 µg/L
Toluene	2 µg/L
F1 (C6-C10)	9.8 mg/L
F1-BTEX	9.8 mg/L
F2 (C10-C16)	1.3 mg/L

7. If the Effluent referred to in Part D, Items 6 exceeds the respective discharge limits, it will be considered Hazardous Waste requiring further treatment or disposal off-site at an approved facility or as otherwise approved by the Board in writing.

8. The Proponent shall provide for the proper storage, treatment, and/or disposal at an approved facility, of any Hazardous Waste generated by the Project, unless otherwise approved by the Board in writing.

9. The Proponent shall dispose of any material coated with Polychlorinated Biphenyl (PCB) amended paints, hazardous materials and soils containing contaminants in excess of *Canadian Environmental Protection Act* (CEPA) Guidelines, with the exception of asbestos, off site at an approved treatment facility.

PART E: CONDITIONS APPLYING TO THE UNDERTAKING

1. The Proponent shall obtain all borrow materials used in construction from sources clean and free of contaminants, including metal leaching and acid generating potential.

2. Should any constructed facilities fail, the Proponent shall repair such facilities immediately to the appropriate standards as recommended by an Engineer.

3. The Proponent should develop and implement an Erosion and Sediment Management Plan that minimizes disturbance to terrain, permafrost and drainage during extraction of granular material, development of the water diversions, dyke breaching, and bermed waste containment.

4. The Proponent shall design and construct all stream crossings to minimize erosion and/or deposition of Waste into Water.

5. The Proponent is recommended to ensure that existing creek channels are maintained at their normal width and depth to the extent possible, during and after site remediation.

6. Granular materials and rock rip-rap used for any temporary stream crossings, approaches or as may be recommended for bank stabilization must be clean and free of contaminants. Such material is not to be removed or gathered from below the ordinary High Water Mark of any Water body.

PART F: CONDITIONS FOR CAMP, ACCESS INFRASTRUCTURE AND OPERATION

1. The Proponent is to conduct all activities in such a way as to minimize impacts on surface drainage and will immediately undertake any corrective measures in the event of any impacts on surface drainage.

2. Winter lake and stream crossings, including ice bridges, are to be constructed entirely of Water, ice or snow, and are to be removed prior to spring break-up.

3. With respect to access road, pad construction, demolition or other earthworks, the deposition of debris or sediment into any Water body is prohibited. These materials are to be disposed of above the ordinary High Water Mark in such a fashion that they do not enter the Water.

PART G: CONDITIONS APPLYING TO DRILLING OPERATIONS

1. The Proponent may drill for the purposes of installing monitoring instrumentation, including monitoring wells and thermistors.

2. The Proponent should 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.

3. All drill Waste, including Water, chips, muds and salts (CaCl2) in any quantity or concentration, from land-based drilling, should be disposed of 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.

PART H: CONDITIONS APPLYING TO SPILL CONTINGENCY PLANNING

1. The *Jericho Mine Site Stabilization Interim Spill Contingency Plan* should be revised to include updated site specific information, and submitted to the Board prior to commencing on site work.

2. The Proponent shall conduct activities in a manner that prevents any chemicals, petroleum products or Wastes associated with the project from entering Water. All sumps and fuel caches are to be located a minimum distance of thirty-one (31) metres from the ordinary High Water Mark of any water body and inspected on a regular basis. The Proponent is encouraged to use secondary containment for fuel and chemical storage facilities associated with this undertaking.

3. The Proponent should conduct equipment maintenance and servicing in designated areas and take all reasonable measures to contain potential spills, such as the use of drip pans to manage motor fluids and other Waste.

4. While undertaking the Jericho Mine Site Stabilization Project, where an unauthorized discharge of Waste occurs, or if such a discharge is foreseeable, the Proponent shall:

    a. Report the spill immediately to the 24-Hour Spill Line at (867) 920-8130 and to the Inspector at (867) 975-4295; and
    b. For each spill occurrence, submit to the Inspector and the NWB, 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.

PART I: CONDITIONS APPLYING TO ABANDONMENT AND RESTORATION

1. The Proponent should complete all restoration work for the temporary camp facilities and all the Water diversion or Waste disposal activities prior to leaving site.

2. The Proponent is recommended to backfill and restore all sumps to the pre-existing natural contours of the land.

3. All disturbed areas are to be stabilized and revegetated as required, upon completion of work, and restored to the extent practicable, to a pre-disturbed state.

PART J: CONDITIONS APPLYING TO MONITORING

1. The Proponent should establish a Monitoring Program and maintain Monitoring Program Stations for adequate monitoring and assessment of site activities. Part B, item 1 of these terms and conditions sets out the recommended reporting components of the Monitoring Program.

2. The Proponent is required to measure and record in cubic metres, the daily quantities of Effluent discharged.

3. The Proponent shall determine the GPS co-ordinates (in degrees, minutes and seconds of latitude and longitude) of all locations where Wastes associated with the camp operations are deposited.

4. The Proponent shall monitor compliance with the Effluent discharge limits set out in Part D, Item 6 by collecting representative composite samples and/or utilizing continuous online monitoring equipment for the appropriate monitoring of the volume released from the Final Discharge Point.

5. The Proponent shall sample Monitoring Program Stations and analyze for the following parameters:

Sulphate	pH*
Total Alkalinity	Nitrate – Nitrite*
Potassium	Chloride*
Total Phenols	Total Copper *
Total Hardness	Ammonia Nitrogen*
Sodium	Oil and Grease (visual)*
Magnesium	Total Copper *
Conductivity	Total Zinc*
Calcium	Total Aluminum *
Total Iron	Dissolved Aluminum*
Total Mercury	Total Cadmium*
Total Manganese	Total Chromium*
Uranium	Total Lead*
Total Cobalt	Total Nickel*
Total Petroleum Hydrocarbons (TPH)	Total Phosphorous*
Polycyclic Aromatic Hydrocarbons (PAH)	Total Arsenic*
Total Molybdenum	Total Suspended Solids*
Benzene, Toluene, Ethylbenzene, Xylene (BTEX)	BOD_5 *(if sewage is being discharged)*
	Total Coliform *(if sewage is being discharged)*

** if deemed necessary depending on the undertaking and on-site parameters*

6. All sampling, sample preservation and analysis should 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.

7. The Proponent shall submit to the Board, a Monitoring Plan that addresses monitoring as well as the Quality Assurance / Quality Control (QA/QC) requirements for the site.

8. The Proponent is recommended to include in the Project Update Summary Report required under Part B, Item 1, all data, monitoring results and information recommended by this Part.