

File No.: **1BR-STU1318** 

August 8, 2013

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**RE: NWB Licence No. 1BR-STU1318** 

Dear Ms. Plato and Mr. Morakinyo:

Please find attached Licence No. **1BR-STU1318** issued to the Department of Indian Affairs and Northern Development ((DIAND) or Aboriginal Affairs and Northern Development Canada (AANDC)) by the Nunavut Water Board (NWB) 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 Land Claims Agreement or NLCA). The terms and conditions of the attached Licence related to water use and waste disposal 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 disposal must cease, or the Licensee may be in contravention of the *Nunavut Land Claims Agreement* and the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*. 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 months prior to the Licence expiry date.

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 applications for amendment as soon as possible to give the NWB sufficient time to go through the amendment process. The process and timing may vary depending on the scope of the amendment; however, a minimum of <u>sixty (60) days</u> 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 from interested persons on issues identified. This information is attached for your consideration.<sup>1</sup>

Sincerely,

Thomas Kabloona Nunavut Water Board

Chair

TK/SJ/mp

Enclosure: Licence No. 1BR-STU1318

Comments - AANDC, DFO, EC, KIA

Cc: Kitikmeot Distribution List

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Aboriginal Affairs and Northern Development Canada (AANDC) – Water Resources Division, December 13, 2012; Environment Canada (EC), December 20, 2012; Fisheries and Oceans Canada (DFO), December 27, 2012; and the Kitikmeot Inuit Association, December 14, 2012

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#### **DECISION**

#### **LICENCE NUMBER: 1BR-STU1318**

This is the decision of the Nunavut Water Board (NWB) with respect to an application dated October 12, 2012 for a new Water Licence made by:

# THE DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT (DIAND) OR ABORIGINAL AFFAIRS AND NORTHERN DEVELOPMENT CANADA

To allow for the use of water and deposit of waste during camp operations and activities related to an Industrial Undertaking at the CAM-A (Sturt Point) DEW Line Site Remediation Project, located within the Kitikmeot Region, Nunavut, generally at the following geographical coordinates:

Latitude: 68° 48' 18.90" N Longitude: 103° 23' 19.86" W Latitude: 68° 48' 16.33" N Longitude: 103° 18' 52.30" W Latitude: 68° 46' 55.65" N Longitude: 103° 18' 58.42" W

Latitude: 68° 46' 58.24" N Longitude: 103° 23' 25.71" W (Project Extents) Latitude: 68° 47' 58.24" N Longitude: 103° 21' 03.06" W (Camp Location)

#### **DECISION**

After having been satisfied that the application was for a location that falls outside of an area with an approved Land Use Plan<sup>1</sup> and subject to a 12.4.4(a) Screening Decision by the Nunavut Impact Review Board<sup>2</sup> in accordance with Article 12 of the *Nunavut Land Claim Agreement (NLCA)*, 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 *NLCA*, public notice of the application was given and interested persons were invited to make representations to the NWB.

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

Licence No. 1BR-STU1318 be issued subject to the terms and conditions contained therein. (Motion #: 2013-B1-028)

Signed this 7<sup>th</sup> day of <u>August 2013</u> at Gjoa Haven, NU.

Thomas Kabloona

Nunavut Water Board, Chair

TK/SJ/mp

<sup>1</sup>NPC Confirmation Determination, dated October 3, 2012.

<sup>&</sup>lt;sup>2</sup> NIRB Screening Determination, dated January 17, 2013.

#### INTRODUCTION

The CAM-A (Sturt Point) Distant Early Warning (DEW) Line Site Remediation Project (Project) is located on Victoria Island approximately 80 kilometres east of Cambridge Bay, within the Kitikmeot Region of Nunavut. The facilities associated with the Project were constructed in 1957 for use as an Intermediate DEW Line site. Approximately six years following construction, in 1963, the site was abandoned from the DEW Line system, and approximately two (2) years following abandonment, in 1965, the Department of Indian Affairs and Northern Development, also known as Aboriginal Affairs and Northern Development Canada (AANDC), assumed responsibilities for the site. The site has undergone some remediation activities since abandonment including the removal of quantities of hazardous materials stored on site and the demolition of buildings and other site infrastructure.

In 1994/1995 a site assessment was completed that identified areas of soil contamination above limits established in the relevant Canadian Council of Ministers of the Environment (CCME) Guidelines. Additional assessment and investigation activities were conducted and completed for the site in 2010 following which a Remedial Action Plan was developed for the purposes of undertaking remedial work commencing July or August 2013. Activities planned as part of the site remediation phase of the Project include the following:

- Mobilization of equipment, materials and personnel to site. Depending on the successful contractor, this could involve Cat Train from Cambridge Bay to the CAM-A site, Sealift from the South to CAM-A or a combination of Sealift and Cat Train:
- Enhancement of site access routes (if required);
- Site roads improvement;
- Airstrip improvement (if required);
- Sealift landing site (if required);
- Camp set-up and operation;
- Hazardous material removal, handling and transportation;
- Temporary storage on site for hazardous materials, equipment and fuels (if required);
- Building and infrastructure demolition;
- Debris consolidation and disposal;
- Excavation and relocation of PHC contaminated soils to the Landfarm cell;
- Excavation and removal of metals and PCB contaminated soils from site;
- Quarrying of gravel and overburden materials;
- Landfill construction & closure:
- Landfarm cell construction & decommissioning (after soil is remediated to INAC protocol's standards);
- Site grading; and
- Demobilization of equipment, materials/wastes and personnel. Demobilization will follow similar approach the contractor used to mobilize to the site;

#### PROCEDURAL HISTORY

The NWB received the following documents as part of the Water Licence Application (Application) submitted by the Department of Indian Affairs and Northern Development (DIAND) in support of the CAM-A (Sturt Point) DEW Line Site Remediation Project:

#### October 16, 2012

- Cover Letter, dated October 12, 2012;
- Section 1: General Water Licence Application;
- Section 2: Exploration/Remote Camp Supplementary Questionnaire;
- Table of Contents:
- Appendix A1 A3: Executive Summary in English, Inuktitut, Inuinnaqtun;
- Appendix D: Current Project Schedule;
- Appendix E: Emergency Response Plans (Spill Contingency Plan; Wildlife Encounter Plan and Heritage Resource Discovery Plan);
- Appendix F: Site Map Site Location Map; Map of Current Site Features; and NTS Map Sheet;
- Appendix H: Nunavut Planning Commission (NPC) Determinant (NPC Letter Conformity Check not Required);
- Appendix I1 I3: NIRB Part 1 Form Project Proposal Information Requirements, English, Inuktitut, and Inuinnaqtun;

#### October 23, 2012

- Appendix G: Environment Assessment Screening Report, CAM-A, Sturt Point, Nunavut Intermediate DEW Line Site – Final;
- Appendix B: Phase III Environmental Site Assessment CAM-A, Sturt Point, NU Intermediate DEW Line Site: and
- Appendix C: Remedial Action Plan CAM-A Sturt Point, NU Intermediate DEW Line Site;

Following receipt, the NWB conducted an internal preliminary technical review after which the proponent was requested to provide a stand-alone Spill Contingency Plan and to clarify some specific information provided in the Application. In response, the proponent provided the following documents on **November 2, 2012**:

- Fuel and Hazardous Material Spill Contingency Plan, Former CAM-A (Sturt Point) Intermediate DEW Line Site, Nunavut; and
- Revision to Page 3 of the Water Licence Application.

On November 21, 2012 the NWB distributed the Application to interested persons for a thirty day review period in accordance with s.48(1) of the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* (NWNSRTA or Act). Prior to the December 21, 2012 deadline for comments, submissions were received from AANDC – Water Resources Division, Fisheries and Oceans Canada (DFO), Environment Canada (EC) and the Kitikmeot Inuit Association (KIA). AANDC – Water Resources Division and EC provided recommendations aimed at addressing potential undesired effects that might be associated with the Project. The

intervening parties, however, did not provide any objections to any potential Board decision that may result in issuance of the licence.

#### **GENERAL CONSIDERATIONS**

#### A. Term of the 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. The applicant requested a five-year term for this licence, which the NWB believes is consistent with and appropriate for the type of activities proposed in the application. The Board has therefore granted the five-year term requested by the applicant.

### **B.** Annual Report

Under the reporting section in the Licence, Part B, Item 1, the Licensee is required to submit, on an annual basis, a report that pertains to water use and waste deposit. This information is kept in the NWB's public registry and made available to interested persons upon request. In addition, the NWB maintains annual reporting information on its FTP site, which can be accessed using the following link (username: *public* and password: *registry*): http://nunavutwaterboard.org/en/public\_registry.

#### C. Water Use

The proponent has requested the use of twenty (20) cubic metres *per* day of water for domestic and miscellaneous purposes including construction activities, as identified in the Application. Water for the purposes described will be obtained from a small freshwater lake located northwest of the proposed camp location or from an alternative source authorized by the Board in writing. Seven (7) cubic metres *per* day of the water quantity requested will be used for domestic purposes while the remaining thirteen (13) cubic metres *per* day will be used for miscellaneous purposes including construction activities. The NWB has determined that the quantity of water requested is appropriate for the type of undertaking and has set maximum water use for all purposes under this Licence at twenty (20) cubic metres *per* day in Part C, Item 1.

#### D. Deposit of Waste

Aggregate Sources

The Licensee has indicated that borrow sources will be developed for the purposes of the supplying aggregates required for project-related construction activities including the maintenance of site roads and airstrip and the construction of a Non-Hazardous Waste Landfill Facility and a Landfarm Facility. As part of the geotechnical investigation conducted in 2010, seventeen (17) borrow areas were investigated within the vicinity of the Project area. The information provided in the Application does not indicate whether any of the sources identified contains material that might possess acid-generating and/or metal leaching properties. Therefore NWB has included requirements under Part E in the Licence that aggregates for use by the project must be obtained from approved sources only. Further, the Licensee is required

to implement adequate drainage control measures at sites associated with aggregate sources to prevent or minimize sediment loading into nearby freshwater bodies.

# Waste Associated with Existing Landfills

There are two (2) Existing or Historic Landfills, A and B, associated with the Project site. The results of the assessment conducted for those landfills indicated that they contain mostly debris, such as, metal barrels, domestic glass, and tin cans; however, they lack contamination and as a result scored low in term of potential risk. The recommended remedial option proposed for the Existing Landfills is to leave them in place, remove surface debris and place additional granular cover. Although the NWB has not included conditions in the Licence to necessarily monitor the Historic Landfills, the licensee should be prepared to undertake some form of monitoring if subsequent observations suggest that monitoring may be warranted.

#### Contaminated Soil

Approximately 43 metres (m³) of Tier I contaminated soil has been identified at the Project site. For the purposes of treating the aforementioned soil, the Licensee has proposed the construction of a Non-Hazardous Waste Landfill. The NWB has included conditions under Part D in the Licence allowing for the establishing of the aforementioned facility as well as criteria to govern effluent emanating from that facility.

Approximately 75 cubic metres (m³) of Tier II contaminated soil has also been identified at the Project site. The Licensee has indicated its intention to transport the soil off-site for treatment at a licensed facility in southern Canada. The NWB has therefore included condition, under Part D in the Licensee, requiring the Licensee to implement appropriate measures during the storage and transportation of this type of Waste in accordance with applicable regulation and guidelines.

The site investigation did not identify any Type A soil; however, if the licensee were to discover quantities of such soil during the remediation project, authorization will be required to treat at or transport the soil to an appropriate facility.

Approximately 1,125 metres (m³) of Type B soil has been identified at the Project site. The Licensee has proposed to treat the soil at a Landfarm Facility to be constructed on site and in accordance with criteria in INAC's *Abandoned Military Site Remediation Protocol* (2009). The NWB has included conditions under Part D in the Licence allowing for the establishing of the aforementioned facility as well as criteria to govern effluent emanating from that facility.

#### Non-Hazardous Waste

The Licensee has stated that solid combustible camp Waste (paper, packaging, food, etc.) will be incinerated on site using an approved incinerator; however, non-combustible solid waste including bulky items such as wood and metal debris will be packaged and shipped to a licensed disposal facility southern Canada. The NWB has included conditions under Part D in the Licence to ensure that appropriate measures are developed and implemented for the storage and shipment of Waste originating from the Project.

#### Hazardous Waste

The Licensee has proposed to package and ship, to appropriate licensed disposal facilities in southern Canada, all hazardous waste including asbestos, cylinders, items painted with lead based paint, organic liquids and Tier II contaminated soils. The Licensee is required to handle all Hazardous Wastes in accordance with applicable regulations including the *Transportation of Dangerous Goods Regulations* and the Government of Nunavut's Environmental *Guidelines for the General Management of Hazardous Waste* (2010). The Licensee is required, under Part D to dispose of all hazardous substances and/or materials at appropriate licensed facilities.

### Sewage

The Licensee has proposed to construct a Sewage Treatment Facility consisting of two (2) independently operated sewage lagoons to treat the Sewage generated by personnel associated with the Sturt Point (CAM-A) DEW Line Site Remediation Project. Criteria governing the quality of the effluent discharged into the receiving environment have been included under Part D in this Licence.

## E. Design Drawings and Operation and Maintenance Manual

Requirements have been included in the Licence for the provision of for-construction design drawings, to the Board for review, at least thirty (30) days prior to constructing any facilities under the licence or in timeframe otherwise approved by the Board in writing.

In addition, the Licensee is required to submit to the Board for approval, at least sixty (60) days prior to commissioning, an Operation and Maintenance Manual for the Waste Disposal Facility as indicated under Part E, Item 3. In addition to operation and maintenance procedures, the manual shall also include as-built design drawings for the Facility approved under the Licence.

### F. Spill Contingency Planning

Subsequent to the submission of the water Licence application, the Proponent submitted a site specific Spill Contingency Plan (SCP), which the Board has approved under Part I in the Licence.

#### G. Abandonment and Restoration

The Board has approved, under Part J of the Licence, the Remedial Action Plan that was submitted as additional information with the application. The Licensee is required to submit to the Board for review, any revisions carried out under the Plans at any stage of the project.

### J. Monitoring

Conditions have been included in the Licence, under Part K, requiring the Licensee to install Monitoring Stations at the Water Supply Facility, Sewage Treatment Facility, Non-Hazardous Waste Landfill Facility, and the Landfarm Facility. In addition, the Licensee is required to submit to the Board for review a Construction Monitoring Report that includes a Quality Assurance/Quality Control (QA/QC) Plan. The QA/QC Plan must receive approval from an analyst confirming its acceptability. All of the monitoring results and analyses involving the results are to be provided to the NWB as part of the annual reporting requirements included under Part K of the Licence.

The Board, having appropriately considered the Application, interveners' submissions and the requirements associated with the nature of the undertaking, has accordingly set terms and conditions in this Licence to govern the use of Water and the deposit of Wastes for the CAM-A (Sturt Point) DEW Line Site Remediation Project.



# NUNAVUT WATER BOARD WATER LICENCE

Licence No. 1BR-STU1318

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

#### DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT

(Licensee)

P.O. BOX 2200, IQALUIT, NUNAVUT X0A 0H0

(Mailing Address)

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

Licence Number/Type: 1BR-STU1318 TYPE "B"

Water Management Area: SOUTHERN VICTORIA ISLAND WATERSHED (38)

Location: CAM A (STURT POINT) DEW LINE SITE REMEDIATION

PROJECT, KITIKMEOT REGION, NUNAVUT

Classification: INDUSTRIAL UNDERTAKING

Purpose: DIRECT WATER USE AND DEPOSIT OF WASTE

Quantity of Water use not

to Exceed: TWENTY (20) CUBIC METRES PER DAY

Date of Licence Issuance: AUGUST 7, 2013

Expiry of Licence: AUGUST 6, 2018

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

Thomas Kabloona.

Nunavut Water Board, Chair

## PART A: SCOPE, DEFINITIONS AND ENFORCEMENT

### 1. **Scope**

This Licence allows for the use of water and the deposit of waste for an Industrial Undertaking classified as per Schedule 1 of the *Regulations* at the CAM-A (Sturt Point) DEW Line Site Remediation Project, located approximately 80 kilometres east of the Hamlet of Cambridge Bay 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**

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

- "<u>Addendum</u>" 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;
- "<u>Aggregate Sources</u>" mean sources of granular materials such as bedrock, gravel, and sand, used for the development of new landfills, landfarms and/or general grading purposes as described in the *Abandon Military Site Remediation Protocol* (INAC 2009);
- "<u>Amendment</u>" 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;
- "<u>Application</u>" means the actual water licence application and all supporting documents received for CAM-A (Sturt Point) Dew Line Site Remediation Project;
- "<u>Appurtenant Undertaking</u>" means an undertaking in relation to which a use of water or a deposit of waste is permitted by a licence issued by the Board;

- "Board" means the Nunavut Water Board established under the *Nunavut Land Claims Agreement* and the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*;
- "<u>Effluent</u>" 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;
- "Existing Landfill" refers to Landfill A, which is located approximately 500 metres south of the station area; and Landfill B, located approximately 400 metres west of the station area, north of Landfill A. Landfills A and B are legacy landfills identified in the application documents received by the Board in October 2012;
- "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;
- "<u>Greywater</u>" means all liquid wastes from showers, baths, sinks, kitchens and domestic washing facilities, but does not include toilet wastes;
- "<u>Hazardous Waste</u>" 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;
- "<u>High Water Mark</u>" 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);
- "Historic Landfills" means, Existing Landfills;
- "<u>Inspector</u>" means an Inspector designated by the Minister under Section 85 (1) of the *Act*;
- "<u>Lanfarm Facility</u>" the engineered facility designed and constructed to treat Type B contaminated soil as described in the Application received by the Board in October 2012;
- "Licensee" means the holder of this Licence;
- "Modification" means an alteration to a physical work that introduces a new structure or eliminates an existing structure and does not alter the purpose or function of the work, but does not include an expansion;

- "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;
- "Non-Hazardous Waste Landfill Facility" the engineered facility designed and constructed to treat Tier I contaminated soil as described in the Application received by the Board in October 2012;
- "Nunavut Land Claims Agreement (NLCA)" 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;
- "Regulations" means the Nunavut Waters Regulations sor 2013/669 18th April, 2013;
- "Sewage" means all toilet wastes and greywater;
- "Sewage Treatment Facility" consists of two independently operated engineered lagoons designed to treat Sewage generated by personnel associated with the CAM-A (Sturt Point) DEW Line Site Remediation Project as described in the Application received in October 2012;
- "Spill Contingency Plan" means a Plan developed to deal with unforeseen petroleum and hazardous materials events that may occur during the operations conducted under the Licence;
- "Sump" means an excavation in impermeable soil for the purpose of catching or storing water or waste:
- "<u>Tier I Soil</u>" means soil containing contaminant concentrations within the types and ranges defined as DCC Tier I in Appendix E of the NTI Agreement, including its preamble and schedules, and any amendments made pursuant to that agreement (see Table No.1);
- "<u>Tier II Soil</u>" means soil containing contaminant concentrations within the types and ranges defined as DCC Tier II in Appendix E of the NTI Agreement including its preamble and schedules, and any amendments to made pursuant to that agreement (see Table No.1);
- "<u>Toilet Wastes</u>" means all human excreta and associated products, but does not include greywater;
- "Type A Soil" means soil contaminated with hydrocarbons in which the primary petroleum product present in the soil as determined by laboratory analysis consists of lubricating oil and grease (F3 F4 Fractions) as described in the Remedial Action Plan received in October 2012;

"<u>Type B Soil</u>" means soil contaminated with hydrocarbons in which the primary petroleum product present in the soil as determined by laboratory analysis consists of fuel oil and/or diesel fuel and /or gasoline (F1 – F2 Fractions) as described in the Remedial Action Plan received in October 2012;

"<u>Water Supply Facility</u>" refers to the intake structure and equipment designed to withdraw and treat potable Water for domestic uses;

"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;

"<u>Waste Disposal Facilities</u>" means all onsite facilities designated for the disposal and/or treatment of Waste generated by the CAM-A (Sturt Point) DEW Line Site Remediation Project including the Non-Hazardous Waste Landfill Facility, the Sewage Treatment Facility, Landfarm Facility and any other facility described in the Application received in October 2012;

"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 Licensee shall file an Annual Report on the Appurtenant Undertaking with the Board no later than March 31st of the year following the calendar year being reported, containing the following information:
  - a. The monthly and annual quantities (in cubic metres) of material deposited in the on-site Non-Hazardous Waste Landfill Facility;
  - b. The monthly and annual quantities (in cubic metres) of material deposited in the Landfarm Facility;

- c. Characterization of the soils placed in the Landfarm Faculty for treatment;
- d. The monthly and annual quantities (in cubic metres) of any effluent discharge from the Landfarm Facility;
- e. The monthly and annual quantities (in cubic metres) of any effluent discharged for the Sewage Treatment Facility;
- f. The monthly and annual quantities (in cubic metres) of any rinse water discharged;
- g. A summary of all Waste disposed of at the Waste Disposal Facilities;
- h. A summary of all waste backhauled to any community in Nunavut required under Part D, Item 6;
- i. The GPS co-ordinates (in degrees, minutes and seconds of latitude and longitude) of all locations where Wastes associated with camp operations are deposited;
- j. The GPS co-ordinates (in degrees, minutes and seconds of latitude and longitude) of all locations of all sources of water used for the Project;
- k. The monthly and annual quantities (in cubic metres) quantities of water used by the Project and whether the sources are on Inuit-owned land or Crown Lands.
- 1. A summary of any construction work, modification and major maintenance work (including as-built drawings) carried out on the Waste Disposal Facilities approved under the Licence;
- m. Tabular summaries for all data and information generated under the "Monitoring Program";
- n. An analysis of data collected during the "Monitoring Program" and a brief description of any future studies planned by the Licensee;
- o. A summary of remediation work undertaken during the year and an outline of work anticipated for the following year;
- p. A summary of any studies requested by the Board that relate to waste disposal, and or reclamation, and a brief description of any future studies planned;
- q. A list of unauthorized discharges and summary of follow-up actions taken;
- r. 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;
- s. A public consultation/participation report describing any consultation with local organizations and the residents of the nearby communities;
- t. A brief summary of work done to address concerns or deficiencies listed in inspection reports and/or compliance reports prepared by an Inspector;
- u. An executive summary in English, Inuktitut, and Inuinnaqtun of all plans, reports, or studies conducted under this Licence; and
- v. Any other details on waste disposal requested by the Board by November 1<sup>st</sup> of the year being reported.
- 2. The Licensee shall notify the NWB of any changes in operating plans or conditions associated with this project at least thirty (30) days prior to any such change.
- 3. The Licensee shall install flow meters or other such devices, or implement suitable methods required for the measuring of water volumes as required under Part K, Item 3.

- 4. The Licensee shall, for all Plans submitted under this Licence, include a proposed timetable for implementation. Plans submitted, cannot be undertaken without subsequent written Board approval and direction. The Board may alter or modify a Plan if necessary to achieve the legislative objectives and will notify the Licensee in writing of acceptance, rejection or alteration of the Plan.
- 5. The Licensee shall, for all Plans submitted under this Licence, implement the Plan as approved by the Board in writing.
- 6. The Licensee shall review the Plans referred to in this Licence, as required by changes in operation and/or technology, and modify the Plan accordingly. Revisions to the Plans shall be submitted in the form of an Addendum to be included with the Annual Report.
- 7. Every Plan to be carried out pursuant to the terms and conditions of this Licence shall become a part of this Licence, and any additional terms and conditions imposed upon approval of a Plan by the Board become part of this Licence. All terms and conditions of the Licence should be contemplated in the development of a Plan where appropriate.
- 8. The Licensee shall, within sixty (60) days of issuance of this Licence, post signs in the appropriate areas identifying the locations and the "Monitoring Program Stations" for the Waste Disposal Facilities and/or any other facilities authorized under the Licence. All postings shall be in the Official Languages of Nunavut.
- 9. 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@nunavutwaterboard.org

### (b) Inspector Contact:

Manager of Field Operations, AANDC Nunavut District, Nunavut Region P.O. Box 100 Iqaluit, NU X0A 0H0

Telephone: (867) 975-4295

Fax: (867) 979-6445

10. The Licensee shall submit one paper copy and one 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.

- 11. 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.
- 12. 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 for domestic camp use from a fresh water lake located proximal to the camp as described in the Application. Total camp water use shall not exceed seven (7) cubic metres *per* day. Water for miscellaneous purposes including construction shall be obtained from the same source or an alternative source otherwise authorized by the Board in writing and shall not exceed thirteen (13) cubic metres per day. The volume of water for the purposes of this Licence shall not exceed twenty (20) cubic metres per day.
- 2. Streams cannot be used as a water source unless authorized and approved by the Board in writing.
- 3. 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 water use, 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.
- 4. 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.
- 5. The Licensee shall not remove any material from below the ordinary high water mark of any water body unless authorized.
- 6. The Licensee shall not cause erosion to the banks of any body of water and shall provide necessary controls to prevent such erosion.
- 7. 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 transport materials coated with Polychlorinated Biphenyl (PCB) amended paints or lead painted products, hazardous materials, Tier II Contaminated Soils, Petroleum Hydrocarbon Contaminated Soils that do not meet incineration criteria to the appropriate off-site licensed facilities for treatment.
- 5. The Licensee shall direct appropriate Wastes originating from the CAM-A (Sturt Point) DEW Line Site Remediation Project to the Waste Disposal Facilities authorized under this Licence or as otherwise approved by the Board in writing.
- 6. The Licensee shall provide to the Board documented authorization from any community in Nunavut receiving Waste from the CAM-A (Sturt Point) DEW Line Site Remediation Project prior to backhauling any such waste for storage or disposal.
- 7. The Licensee shall maintain records of all waste backhauled and records of confirmation of proper disposal of backhauled waste and include this information within the Annual Report, under Part B, Item 1. These records shall be made available to an Inspector upon request. The Licensee shall not transport hazardous wastes prior to registering with the Government of Nunavut as a waste generator and utilizing the prescribed manifests.
- 8. The Licensee shall provide notice to an Inspector at least ten (10) days prior to initiating any decant or discharge from the Waste Disposal Facilities.
- 9. The Licensee shall treat Sewage generated by the camp personnel at the Sewage Treatment Facility or as otherwise authorized by the Board in writing.
- 10. All Effluent discharged from the Sewage Treatment Facility at Monitoring Stations STU-2 and STU-3 shall not exceed the following discharge criteria prior to releasing at least thirty-one (31) metres away into any receiving freshwater environment.

Parameter	Maximum Allowable Concentration
pH	6 to 9 (pH units)
Oil and Grease	No visible sheen
TSS	180 mg/L
BOD	120 mg/L
Feacel Coliform	10, 000 CFU/dl

11. The Licensee shall treat Type B Soil generated by the project to meet the relevant remediation objectives at the Landfarm Facility authorized under the Licence or as otherwise authorize by the Board in writing.

12. Surface contact water and seepage collected from the perimeter of the Landfarm Facility shall not exceed the following Effluent discharge criteria at Monitoring Station STU-4 prior to being released is at least thirty-one (31) metres away into the receiving freshwater environment:

Parameter	Maximum Allowable Concentration (mg/L)	
pH	6 to 9 (pH units)	
TSS	15	
Oil and Grease	15 and no visible sheen	
Total Lead	0.001	
Benzene	0.370	
Toluene	0.002	
Ethylbenzene	0.090	

- 13. The licence shall direct the Tire I contaminated soil described in the application to the Non-Hazardous Waste Landfill Facility for treatment or as otherwise approved by the Board in writing.
- 14. Contact water including demolition rinse water, associated with the storage and cleaning of contaminated areas and equipment at monitoring station STU-12 and Surface contact water and seepage collected from the perimeter of the Non-Hazardous Waste Landfill Facility shall not exceed the following Effluent discharge criteria at Monitoring Station STU-8 prior to releasing at least thirty-one (31) metres into the receiving freshwater environment:

Parameter	Maximum Allowable Concentration (μg/L)
pH	6 to 9 (pH units)
Oil and Grease	5000
Arsenic (total)	100
Cadmium (dissolved)	10
Chromium (dissolved)	100
Cobalt (dissolved)	50
Copper (dissolved)	200
Lead (dissolved)	50
Mercury (total)	0.6
Nickel (dissolved)	200
PCB (total)	1000
Zinc (total)	500
Benzene	370
Toluene	2
Ethylbenzene	90

- 15. If the Effluent associated with Part D, Items 10, 12, and 14 exceeds relevant discharge limits, they shall be considered hazardous waste and be disposed off-site at a licensed facility or as otherwise approved by the Board in writing.
- 16. The Licensee shall for the purposes of monitoring install ground water monitoring wells, at least one up-gradient and two down-gradient of the Non-Hazardous Waste Landfill, the Landfarm Facility and any other areas of the Project site requiring monitoring.
- 17. The Licensee shall provide for the proper storage, transportation, and treatment off site at an Licensed facility or as otherwise approved by the Board in writing, all Hazardous Waste Materials identified in the Application, including any Tier II contaminated Soil, items contaminated with PCBs and Heavy Metals and waste oil generated through construction and remediation activities.
- 18. The Licensee shall not mix or blend soils that exceed the maximum levels of Tier II criteria for the expressed purpose of attaining the specific limits of Tier I as listed under Table No.1.
- 19. The Licensee shall dispose of all soils containing substances in excess of Tier II criteria, as indicated in Table No.1, by collection, containment and shipment off-site to a licensed disposal facility.
- 20. The Licensee 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, off site at an approved treatment facility in accordance with the information provided in the Application.
- 21. The Licensee shall dispose of all scrap metal, discarded machinery and parts, and other bulky material in a manner that conforms to the remedial option selected in the "Remedial Action Plan CAM-A Sturt Point NU Intermediate DEW Line Site" dated March 2011.
- 22. The Licensee shall not deposit any waste in any water body, or on the banks thereof, which may impair the quality, quantity, or flow of water.
- 23. Areas that have been contaminated by hydrocarbons shall be reclaimed to meet relevant objectives as outlined in the INAC's *Abandoned Military Site Remediation Protocol* (2009) as well as applicable guidelines.

# PART E: CONDITIONS APPLYING TO THE UNDERTAKING

1. The Licensee may use aggregates for the purposes specified in the "Remedial Action Plan CAM-A Sturt Point, NU Intermediate DEW Line Site" dated March 2011 provided that the aggregate sources are approved by an Inspector, free of contaminants and satisfies the requirement of Part E, Item 2 of this Licence.

- 2. The Licensee shall use aggregates for construction from approved sources that have been demonstrated to not possess acid generating and metal leaching properties.
- 3. The Licensee shall submit to the Board for approval, within sixty (60) days prior to commission any facility designed to contain, withhold, divert or retain Water or Wastes, at the CAM-A (Sturt Point) DEW Line Site Remediation Project, an Operation and Maintenance Manual. The manual shall be prepared in accordance with the "Guidelines for the Preparation of an Operation and Maintenance Manual for Sewage and Solid Waste Disposal Facilities in the Northwest Territories (1996).
- 4. The Operations and Maintenance Manual referred to in Part E, Item 3 shall address the following items:
  - a. As-built, engineered design drawings of the facilities approved under the licence (stamped by a professional engineer registered in Nunavut);
  - b. Feasibility of alternative disposal methods and sites;
  - c. Operation and maintenance procedures for each facility;
  - d. Runoff diversion and management;
  - e. Soil Quality Remediation Objectives (SQRO's) where applicable; and
  - f. Monitoring program for both water and soil.
- 5. The Licensee shall review the Plan referred to in this Part as required by changes in operation and/or technology and modify the Plan accordingly. Revisions to the Plan are to be submitted in the form of an Addendum to be included with the Annual Report.
- 6. The Licensee shall, upon the failure of any constructed facilities, repair such facilities immediately to the appropriate standards as recommended by an Engineer.
- 7. The Licensee shall implement proper handling, storage and transportation procedures for hazardous materials during clean-up activities.
- 8. The Licensee shall minimize disturbance to terrain, permafrost and drainage during extraction of granular material, development and closure of landfills, movement of contractor's equipment and personnel around the site and removal of site debris.
- 9. The Licensee shall not cause erosion to the banks of any body of water and shall provide necessary controls to prevent such erosion.
- 10. Sediment and erosion control measures shall be implemented prior to and maintained during the operation to prevent entry of sediment into water.
- 11. The Licensee shall design and construct all stream crossings to minimize erosion and/or deposition of waste into water.
- 12. The Licensee shall ensure that existing creek channels are maintained at their normal width and depth to the extent possible, during and after construction.

- 13. Granular materials and rock rip-rap used for any temporary stream crossings, approaches or required for bank stabilization must be obtained from a source satisfying the requirements of Part E, Item 2, is approved by an Inspector, and is clean and free of contaminants. Such material must not be removed or gathered from below the ordinary high water mark of any water body.
- 14. All sites affected by construction or removal activities shall be stabilized, landscaped as necessary, and suitable erosion control measures implemented to minimize sediment deposition into watercourses located on or adjacent to the site.
- 15. The Licensee shall restore and stabilize all areas affected by the undertaking upon completion of the work.

# PART F: CONDITIONS FOR CAMPS, ACCESS INFRASTRUCTURES AND OPERATIONS

- 1. The Licensee shall not erect camps or store material on the surface of frozen streams or lakes including the immediate banks except what is for immediate use. Camps shall be located such as to minimize impacts on surface drainage.
- 2. The Licensee shall conduct all activities in such a way as to minimize impacts on surface drainage and the Licensee shall immediately undertake corrective measures in the event of any impacts on surface drainage.
- 3. The Licensee shall construct all winter lake and stream crossings, including ice bridges, entirely of water, ice or snow. The Licensee shall minimize disturbance by locating ice bridges in an area that requires the minimum approach grading and the shortest crossing route. Stream crossings shall be removed or the ice notched prior to spring break-up.
- 4. With respect to access road, pad construction or other earthworks, the deposition of debris or sediment into or onto any water body is prohibited. These materials shall be disposed a distance of at least thirty one (31) metres from the ordinary high water mark in such a fashion that they do not enter the water.
- 5. 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

## PART G: CONDITIONS APPLYING TO DRILLING OPERATIONS

1. No drilling is allowed except for the purposes of installing monitoring wells and/or instrumentation required for monitoring the Waste Disposal Facilities.

# <u>PART H:</u> <u>CONDITIONS APPLYING TO CONSTRUCTION AND MODIFICATIONS</u>

- 1. The Licensee shall provide to the Board for review, within thirty (30) days prior to the construction, or as otherwise approved by the Board in writing, detailed designs for all Waste Disposal Facilities referred to in this Licence, complete with for-Construction drawings, signed and stamped by an Engineer. The designs shall consider siting, operation, monitoring, sampling, analytical methods, decommissioning and closure options and plans for the proposed Facilities.
- 2. The Licensee shall submit to the Board for review within ninety (90) days following construction, as-built plans and drawings, stamped by an Engineer, for the facilities referred to in Part H, Item 1.
- 3. 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 License 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.
- 4. Modifications, for which all of the conditions referred to in Part H, Item 3 have not been met, can be carried out only with written approval from the Board.
- 5. 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 I: CONDITIONS APPLYING TO SPILL CONTINGENCY PLANNING

- 1. The Board has approved the Plan entitled "Fuel and Hazardous Material Spill Contingency Plan, Former CAM-A (Sturt Point) Intermediate DEW Line Site, Nunavut," dated October 2012 that was submitted as additional information with the application.
- 2. 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 a minimum of thirty-one (31) metres above the ordinary High Water Mark of any adjacent water body and inspected on a regular basis. The Licensee is encouraged to use some

- form of secondary containment on fuel and chemical storage facilities associated with this undertaking.
- 3. The Licensee shall ensure that any equipment maintenance and servicing be conducted only in designated areas and shall implement special procedures (such as the use of drip pans) to manage fluids, waste and contain potential spills.
- 4. If during the term of this Licence, an unauthorized discharge of waste occurs, or if such a discharge is foreseeable, the Licensee shall:
  - a. Employ the Approved Spill Contingency Plan;
  - b. Report the spill immediately to the 24-Hour Spill Line at (867) 920-8130 and to the AANDC Water Resources Inspector at (867) 975-4295; and
  - c. Submit to the AANDC Water Resources Inspector on each occurrence, a detailed report including the GPS location, no later than thirty (30) days after initially reporting the event.

# PART J: CONDITIONS APPLYING TO ABANDONMENT AND RESTORATION

- 1. The Board has approved the Plan entitled "Remedial Action Plan CAM-A Sturt Point, NU Intermediate DEW Line Site" dated March 2011 that was submitted as additional information with the application.
- 2. The Licensee shall undertake the CAM-A (Sturt Point) DEW Line Site Remediation Project in accordance with the option(s) selected under the plan approved under Part J, Item 2.
- 3. The Licensee shall complete all restoration work for the temporary camp facilities and waste disposal activities not included under Part J, Item 1 of this Licence, prior to the expiry of this Licence.
- 4. The Licensee shall backfill and restore any temporary containment sumps to the preexisting natural contours of the land.
- 5. All disturbed areas shall be stabilized and re-vegetated as required, upon completion of work, and restored as practically as possible to a pre-disturbed state.

# PART K: CONDITIONS APPLYING MONITORING

- 1. The Licensee shall submit to the Board for approval, at least sixty (60) days prior to initiating Long-Term Monitoring for the project, a Post-closure Monitoring Plan for the site that includes information on Long-Term Monitoring of the Waste Disposal Facilities and that addresses water quality monitoring, stability of the site and the need for thermal and ground water monitoring.
- 2. The Licensee shall maintain Monitoring Program Stations at the following locations:

Monitoring Program Station Number	Description	Status
CODI I 1	Monitoring Station installed at the	Active
STU-1	freshwater intake location	(Volume)
	Monitoring Station installed at the Sewage	Active
STU-2	Treatment Facility – Lagoon Cell No. 1	(Volume)
	discharge point	(Water Quality)
	Monitoring Station installed at the Sewage	Active
STU-3	Treatment Facility – Lagoon Cell No. 2	(Volume)
	discharge point	(Water Quality
STU-4	Monitoring Station installed at the	Active
310-4	discharge point of the surface water	Volume
	collection system for the Landfarm Facility	(Water Quality
STU-5	Monitoring well installed down-gradient of	Active
310-3	the Landfarm Facility	(Water Quality)
STU-6	Monitoring well installed down-gradient of	Active
510-0	the Landfarm Facility	(Water Quality)
STU-7	Monitoring well installed up-gradient of the	Active
510-7	Landfarm Facility	(Water Quality)
	Monitoring Station installed at discharge	Active
STU-8	point of the surface water collection system	(Volume)
510-6	for the Non-Hazardous Waste Landfill	(Water Quality
	Facility	
STU-9	Monitoring well installed down-gradient of	Active
510 /	the Non-Hazardous Waste Landfill Facility	(Water Quality
STU-10	Monitoring well installed down-gradient of	Active
510-10	the Non-Hazardous Waste Landfill Facility	(Water Quality
STU-11	Monitoring well installed up-gradient of the	Active
510-11	Non-Hazardous Waste Landfill Facility	(Water Quality
	Monitoring Station installed at the	Active
STU-12	discharge point of demolition waste rinse	(Volume)
	water collection area.	(Water Quality)

- 3. The Licensee shall measure and record, in cubic metres, the daily quantities of freshwater withdrawn at Monitoring Station STU-1 and effluent discharged from the Waste Disposal Facilities at Monitoring Program Stations STU-2, STU-3, STU-4, STU-8 and STU-12.
- 4. The Licensee shall sample prior to discharge at Monitoring Program Stations STU-4, STU-8 and STU-12.and analyze for the following parameters:

pН
Total Suspended Solids
Nitrate – Nitrite

Conductivity Ammonia Nitrogen Oil and Grease (visual) Total Phenols
Total Hardness
Total Alkalinity
Sodium
Magnesium
Calcium
Total Alkalinity
Potassium
Calcium

ChlorideTotal CadmiumTotal CopperTotal ChromiumTotal IronTotal LeadTotal MercuryTotal NickelTotal ZincTotal PhosphorousTotal AluminumTotal ArsenicTotal ManganeseTotal Cobalt

Total Petroleum Hydrocarbons (TPH) Polycyclic Aromatic Hydrocarbons (PAH) Benzene, Toluene, Ethylbenzene, Xylene (BTEX)

- 5. The Licensee shall sample twice per year, once during spring freshet and once during mid-summer, the Monitoring Program Stations STU-5, STU-6, STU-7, STU-9 STU-10, and STU-11 for the purpose of performing analyses for the parameters listed under Part K Item 4.
- 6. The Licensee shall determine the GPS co-ordinates (in degrees, minutes and seconds of latitude and longitude) of all locations where Wastes associated with camp operations are deposited.
- 7. The Licensee shall monitor compliance with respect to Part D, Items 10, 12, and 14, accordingly, by collecting a representative composite sample once at the beginning of discharge upon initial release and prior to the end of discharge, from the Discharge Points of the Waste Disposal Facilities at Monitoring Program Station STU-2, STU-3, STU-4, STU-8 and STU-12.
- 8. The Licensee shall monitor groundwater quality proximal to the Waste Disposal Facilities by collecting representative samples from all monitoring wells installed under Part K, Item 2. Samples shall be analyzed for parameters listed under Part K, Item 4.
- 9. 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.
- 10. All analyses shall be performed in a laboratory accredited according to ISO/IEC Standard 17025. The accreditation shall be current and in good standing
- 11. The Licensee shall submit to the Board for review, at least thirty (30) days prior to first release any effluent, a Quality Assurance/Quality Control Plan that conforms to the guidance document "Quality Assurance (QA) and Quality Control (QC) Guidelines For Use by Class "B" Licensees in Collecting Representative Water Samples in the Field and for Submission of a QAQC Plan" INAC (1996). The Plan shall be acceptable to an

accredited laboratory and include a covering letter from the accredited laboratory confirming acceptance of the Plan for analyses to be performed under the Licence.

Table No.1
(From INAC Abandoned Military Site Remediation Protocol)
DEW Line Clean-up Criteria (DCC)<sup>a</sup>

Substance	DCC Tier I <sup>bc</sup>	DCC Tier II <sup>d</sup>
Arsenic	-	30
Cadmium	-	5.0
Chromium	-	250
Cobalt	-	50
Copper		100
Lead	200	500
Mercury	-	2.0
Nickel	-	100
Zinc	-	500
PCB's	1.0	5.0

a. These criteria were adopted specifically for the cleanup of Arctic DEW Line Sites from the 1991 versions of the Quebec Soil Contamination Indicators and the Canadian Council of Ministers of the Environment Interim Canadian Environmental Criteria for Contaminated Sites.

b. Soil criteria are given in parts per million, ppm.

c. Soils containing lead and/or PCBs at concentrations in excess of DCC I, but less than DCC II, may be landfilled,

d. Soils containing one or more substrates in excess of DCC II must be containerized - i.e. removed in a manner which precludes contact with the Arctic ecosystem.