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NUNAVUT WATER BOARD  
NUNAVUT IMALIRIYIN KATIMAYINGI  
OFFICE DES EAUX DU NUNAVUT

File No.: **3BM-RES1520/Renewal**

June 17, 2015

Angela Idlout  
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Email: [broy@gov.nu.ca](mailto:broy@gov.nu.ca)

**RE: Licence No. 3BM-RES1520; Renewal**

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Dear Ms. Idlout and Mr. Roy:

Please find attached Licence No. **3BM-RES1520** issued to the Hamlet of Resolute Bay 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 (3) 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's interest, to hold a public hearing. The Licensee should submit applications for amendment as soon as possible to give the NWB sufficient time to go through the amendment process. The process and timing may vary depending on the scope of the amendment; however, a minimum of sixty (60) days is required from time of acceptance by the NWB. It is the responsibility of the Licensee to ensure that all application materials have been received and are acknowledged by the Manager of Licensing.

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

Sincerely,

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Thomas Kabloona  
Nunavut Water Board  
Chair

TK/ce/pb

Enclosure: Licence No. **3BM-RES1520**  
Comments – AANDC

Cc: Qikiqtani Distribution List

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<sup>1</sup> Aboriginal Affairs and Northern Development Canada (AANDC), September 11, 2014.

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## **DECISION**

### **LICENCE NUMBER: 3BM-RES1520**

This is the decision of the Nunavut Water Board (NWB) with respect to an application dated May 30, 2014 for an amendment and renewal of a Water licence made by:

### **HAMLET OF RESOLUTE BAY**

to allow for the deposit of Waste for the Hamlet of Resolute Bay (Applicant), located within the Qikiqtani Region of Nunavut at the Geographical coordinates as follows:

Latitude: 74°43'01"N Longitude: 94°58'10"W

## **DECISION**

After having been satisfied that the application was in conformity with the North Baffin Regional Land Use Plan<sup>1</sup> and exempt from the requirement for screening by the Nunavut Impact Review Board<sup>2</sup> as described within Schedule 12-1, 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. 3BM-RES9699 be renewed as Licence No. 3BM-RES1520 subject to the terms and conditions contained therein (Motion #: 2015-B1-010).**

Signed this 17<sup>th</sup> day of June, 2015 at Gjoa Haven, NU.

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Thomas Kabloona  
Nunavut Water Board, Chair

TK/ce/pb

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<sup>1</sup> Nunavut Planning Commission (NPC) Conformity Determination, August 20, 2014.

<sup>2</sup> Nunavut Impact Review Board (NIRB) Decision / Communication, August 14, 2014

## I. BACKGROUND

The Hamlet of Resolute Bay (Hamlet) is located on the south coast of Cornwallis Island on the Perry Channel. Located at 74°43'01"N and 94°58'10"W, the community is approximately 1550 km northwest of Iqaluit. In the early 1970's, the settlement was relocated from the beach area to the present location. In 2012, 269 individuals were residing in the community though the relocated community was designed to accommodate 1,500 people. There are three water licences for this community. The Hamlet of Resolute Bay was initially issued Licence 3BM-RES9699 for water use, sewage and solid waste disposal. In 2010, the Government of Nunavut, Community and Government Services (GN-CGS) was issued Licence 3BM-RUT1012, subsequently renewed in 2015 as 3BM-RUT1520 for the use of water and disposal of sewage through the Utilidor Systems. Currently, the Hamlet holds the expired Licence 3BM-RES9699 for the Hamlet's solid waste management. In 2003, the GN-CGS applied for and was issued the now expired Licence NWB3YRB0308, for the use of water and deposit of waste at the Hamlet's airport facility. Due to the delayed plans to refurbish the airport facilities (Licence No. 3BM-YRB0308), the Board decided to proceed and process the renewals for the Solid Waste Management Facility (Licence No. 3BM-RES9699) and the Utilidor System (Licence No. 3BM-RUT1520) independently.

In the community, the average daily minimum and maximum temperatures for July and January are 1.3°C and 6.8°C, and -35.8°C and -28.5°C, respectively. An average of 50.4 mm of rainfall and 97.3 mm of snowfall for a total of 139.6 mm of precipitation is received each year.

The community population growth rate is approximately 3% annually. The waste generated by the Community in 2013 summer for a population of 600 people was 335,215 kgs and for 300 people during the winter, approximately 162,608 kgs. An Engineering Consulting firm, Arktis Solutions Inc., completed a feasibility study in May 2010 where they identified a suitable site approximately 9km west of the Resolute Bay community as a suitable solid waste disposal site. Given that the upgrade design work for the waste management site is on hold, the Hamlet would like to renew Licence No. 3BM-RES9699 in order to continue to use the existing waste management facilities until the new facilities are built and commissioned.

## II. FILE HISTORY

Three water Licences have been issued to the Hamlet of Resolute Bay for the operation of water and waste facilities. The first was issued by the Northwest Territories Water Board (NWTWB) (N4L3-1571, re-named as 3BM-RES9699 by the Nunavut Water Board), while the Nunavut Water Board (NWB) issued the other two (3BM-RUT1520 and NWB3YRB0308).

The Licence issued by the Northwest Territories Water Board to the Hamlet of Resolute Bay is as follows:

- ***Licence N4L3-1571(3BM-RES699)***

This Licence was issued on July 1, 1996 and expired on June 30, 1999. The Licence allowed for the deposit of waste and use of 65,000 cubic metres of water per year for a Municipal undertaking. The Licensee submitted this separate renewal application for

3BM-RES9699 (N4L3-1571) for the Municipality's solid waste management.

The Licences issued by the Nunavut Water Board to the Government of Nunavut Department of Community Government and Transportation (GN-T) and Government of Nunavut Community and Government Services (GN-CGS) are the followings, respectively:

- ***Licence NWB3YRB0308***

This Licence was issued to the GN-T on November 30, 2003 with an expiry date of November 30, 2008. The Licence allowed for the use of 600 cubic metres of water annually and deposit of waste in support of a Municipal undertaking at the Airport Facility. Licensee has indicated that the renewal application for 3BM-YRB0308, the Municipal Airport undertaking, is currently on hold. This application is to be submitted by the GN-CGS as this department has indicated that they would be taking over as the main contact and licensee.

- ***Licence 3BM-RUT1520***

This Licence was issued on March 30, 2015 with an expiry date of March 29, 2020. The Licence allows for the use of maximum 126,020 cubic metres of water and deposit of waste (sewage) annually.

### **III. PROCEDURAL HISTORY OF RENEWAL APPLICATION**

The NWB received from the Government of Nunavut – Community Government Services (GN-CGS) on behalf of the Hamlet of Resolute Bay, the following application documents (Application) for the renewal of Licence 3BM-RES9699, under multiple submissions occurring from December 23, 2002 through to March 15, 2015:

- Application Cover Letter, English;
- Executive Summary, in English and Inuktitut;
- Water Licence Renewal Application, May 2014;
- Technical Summary Resolute Bay Landfill, in English and Syllabic;
- Annual Reports for 2009, 2010, 2011, 2012, 2013 and 2014;
- Report entitled “Abandonment and Restoration Plan for the Municipal Dump Site in Resolute Bay, Nunavut” prepared by Arktis Solutions Inc., dated May 7 2010;
- Site Location Map and Drawings;
- Applicant Response to NWB request for Information;
- Applicant Response to NWB Letter-ILAE;
- Water Licence Application Ownership Response;
- CGS Letter to NWB for Resolute Bay, June 2014;
- Solid Waste Operation and Maintenance Plan for Hamlet of Resolute Bay, May 2014;
- Hazardous Spill Reports;
- Supplemental Questionnaire;
- Hamlet of Resolute Bay Municipal Questionnaire; and
- GN-Resolute Bay Municipal Questionnaire.

On August 12, 2014, following a preliminary internal review of the Application, the NWB concluded that the Application met the requirements of section 48(1) of the Nunavut Waters and Nunavut Surface Rights Tribunal Act (NWNSTRA or Act) and forwarded the Notice of the Application to regulators, council of the municipality most affected by the project and other interested parties. Parties were invited to make representations to the NWB within thirty (30) days.

Comments were submitted by Aboriginal Affairs and Northern Development Canada (AANDC) on September 11, 2014.

No public concern was expressed during the notice and technical review period. Therefore, the NWB waived the requirement to hold a public hearing and proceeded with the application process.

On August 20, 2014 the Nunavut Planning Commission (NPC) issued written confirmation that the project conforms to the North Baffin Regional Land Use Plan. On August 14, 2015 the Nunavut Impact Review Board (NIRB) issued written confirmation that this project is exempt from Screening pursuant to item #5 of Schedule 12-1 of the Nunavut land Claims Agreement (NLCA), Types of Project Proposals Exempt from Screening.

The NWB has placed in its Public Registry copies of the Application and all comments received from interveners. This information can be accessed on the NWB's File Transfer Protocol (FTP) site using the following link: <ftp://ftp.nwb-oen.ca>.

Based upon the results of the detailed assessment of the Application, including consideration of any potential accidents, malfunctions, or impacts to water that the overall project might have in the area, the Board has considered the Application and issued the renewal water Licence 3BM-RES1520.

Under this Licence, the Hamlet of Resolute Bay is the Licence holder and is responsible for complying with its terms and conditions. This Licence replaces the terms and conditions related to the solid waste disposal contained in expired water Licence 3BM-RES9699. The 3BM-RUT1520 water Licence, contains terms and conditions applicable to the use of water and the deposit of a waste (sewage disposal), that have not been included within this Licence. In addition, the Licence scope for 3BM-RES1520 does not include any activities related to the Airport facility, authorized previously under 3BM-YRB0308.

## **IV. ISSUES**

### **Compliance**

The Board was provided with AANDC's comments and recommendations on September 11, 2014 which highlighted non-compliance issues. The Hamlet has generally not complied with its monitoring requirements as dictated under Part H of the expired licence; the state of the Solid Waste Facility remains non-engineered and the Hamlet continues to operate Waste disposal

facilities without Management Plans approved by the Board. The NWB acknowledges, however, that the Hamlet of Resolute Bay appears to have made efforts to address its compliance issues. These include: the submission of Annual Reports; new upgrade designs have been proposed with design work in progress, and commitments have been made by the Licensee in a communication delivered on April 5, 2015, to submit improved O&M Plans and Monitoring results upon the commission of the new Solid Waste Site.

### **Term of the Licence**

The Licensee has requested a five (5) year term for the renewal licence. In accordance with s. 45 of the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* (NWNSTRA or the Act), the NWB may issue a licence for a term not exceeding twenty-five (25) years. In determining an appropriate term of a Water licence, the Board considers a number of factors, including the results of the AANDC annual site inspection and the compliance record of the Applicant.

In recognition of the recent efforts made by the Licensee to address compliance issues and taking into consideration the Licensee's request, compliance history, and intervener's (AANDC) recommendations, the NWB has issued the licence for a term of five (5) years and believes that this time period will provide a realistic opportunity for the Licensee to prove to the Board that it can meet the long-term requirements of the Licence, allow for the commissioning of new and upgraded infrastructure, as well as establish a consistent compliance record with respect to the requirements under the terms and conditions of its licence. The five (5) year renewal Licence will also ensure that sufficient time is given to permit the Licensee to develop, submit, and implement the Plans required under its licence to the satisfaction of the NWB. The Board also supports AANDC's recommendations that all the facilities under the three licences of 3BM-RES1520, 3BM-RUT1520 and 3BM-YRB0308, for the Hamlet of Resolute Bay, should once again be amalgamated under one water licence by 2020. The Board has therefore adjusted the expiry of this Licence to be consistent with the 3BM-RUT1520 licence expiry of March 29, 2020, and requests that the application to renew be combined for the three Licences.

### **Annual Report**

Part B of the expired licence requires the submission of annual reports and associated sampling results for the Hamlet's Monitoring Program. Although Annual Reports were received by the NWB for 2009-2014, the reports for 2009-2011 were submitted noticeably late—only being received nine (9) months after the submission of the 2014 Renewal Application—and all of the reports contained deficiencies in monitoring results.

The information requested in Part B, Item 1, of the expired 3BM-RES9699 licence was not provided in full. The Board recommends that the Licensee comply with the conditions set forth in Part B of this licence and in addition, the Licensee is advised that the NWB's "*Standardized Form for Annual Reporting*" could be supplemented by additional monitoring documentation. The Licensee is encouraged to adopt the Reporting and Record Keeping recommendations made by Arktis Solutions Inc. (in the Solid Waste Operations and Maintenance Plans, dated May 2014) by including amongst other items:

- a. a description of the activities that occurred at the facility throughout the year;



- b. estimated waste acceptance quantities;
- c. annually shipped quantities;
- d. a description of any maintenance or improvements that were completed at the site throughout the year; and
- e. analytical test results of leachate from the sites.

In accordance with s.14 of the *Nunavut Water Regulations*, the NWB maintains the condition under Part B, Item 1 of the current Licence, to produce and submit Annual Reports by March 31<sup>st</sup> following the year being reported. Annual Reports are an important assessment tool for the NWB regarding the status of a Water Licence in addition to ensuring that the NWB and other stakeholders possess an accurate understanding of municipal activities during any particular calendar year related to water use and the deposit of waste. This information is maintained in the NWB's public registry and is available to interested parties upon request. As mentioned above, a "*Standardized Form for Annual Reporting*" is a good starting point, and has been made available for use by the Licensee at the NWB's ftp site at: <ftp://ftp.nwb-oen.ca/>

## **Solid Waste**

The Hamlet of Resolute Bay's Solid Waste Facilities consists of two non-engineered waste sites: 1) the domestic waste site, and 2) the bulky metal waste site. The domestic waste site is situated at the western tip of the community, about 4km south-west of the community of Resolute Bay and 0.5km north of the ocean shoreline. The bulky metals site, which receives all the metal household appliances and mobiles/vehicle waste, is located 0.5km north of the Community.

According to the 2010 design study for the Hamlet of Resolute Bay's Solid Waste Management, set forth by the engineering consulting firm Arktis Solution Inc., the existing landfill site is estimated to be 450m by 250m wide and the average waste generation rate is estimated as 0.015 m<sup>3</sup>/person/day. It is further estimated that the 2014 winter population of the Hamlet is about 262 people, and about 600 people in the summer.

AANDC has indicated in its comments, that contrary to the requirements of Part H, item 2 of the previously issued solid waste licence 3BM-RES9699, hazardous wastes are often seen in household waste area. The Board has included condition Part D Item 4, which pertains to the proper segregation of all hazardous waste from any other waste and the proper storage of hazardous waste in a secured facility. Furthermore, AANDC's 2011 inspection indicated that the waste sites are open to the public without restriction, and that children are getting into the hazardous waste area and tipping over barrels of unknown substances. The Board supports AANDC's recommendations by highlighting Part B (Item 6) and Part D (Item 4) of this Licence, pertaining to the installation of proper signage and operating the facility as recommended by the AANDC Inspector, by controlling access to the hazardous waste and bulky metals waste site. The Board is therefore in support of the Hamlet's proposed plan to install appropriate signage during the summer of 2015.

The Board has added conditions under Part D Items 2 and 3, to govern the burning of waste at the Solid Waste Sites as it was identified that the Hamlet personnel are conducting periodic burning of the waste at both locations, without alerting AANDC personnel and without obtaining

the proper permits from the Hamlet of Resolute Bay's Fire Department. The Nunavut Water Board is also concerned that a lack of properly segregated waste, improper sampling of contaminated waste/soil/groundwater, and lack of control regarding public access to the site is a high risk situation with respect to the protection of fresh water, uncontrolled fires and general hazards to the public.

Moreover, the Board supports AANDC's recommendation that the Licensee conduct a public awareness campaign in order to educate the public on how to properly segregate and dispose solid waste.

Finally, the Board is aware that Arktis Solutions Inc. was retained by the applicant to complete the design for the new waste management facility. Though the new Solid Waste Site project is on hold, a new site was studied and recommended by Arktis Solutions Inc. in their May 2014, Solid Waste Operations and Maintenance Plans report. Given the current state and age of the existing non-engineered waste facilities, the Board has included terms and conditions, Part F Item 2, requiring completion and submission of a Long-term Solid Waste Management Plan for the Hamlet of Resolute Bay. The Board also advises the Licensee that any future upgrades and construction of a new facility will require an Amendment to this Licence and an updated Abandonment and Restoration Plan for the current Solid Waste Sites, per Part G of this licence.

### **Contaminated Soil**

The Board is in support of the Hamlet's co-operation with the Water Licence Compliance Group (WLCG), formed by the GN in the fall of 2014, to deal with the Inspector's concerns on the water licence compliances and develop short/mid/long term plans for water use and waste deposit in Nunavut. The lack of an engineered Land-Farm for treating of contaminated soils generated by the community further heightens the need for proper monitoring of the soil and groundwater at both Solid Waste Facilities. The Board further supports AANDC's recommendations that an effective secondary containment will go a long way in preventing the release of hazardous substances into the environment. The Board has included terms under Part G Item 5 to govern hydrocarbon and other hazardous waste contamination. All soil contaminated by hydrocarbons shall be reclaimed to meet objectives as outlined in the Government of Nunavut's Environmental Guideline for Site Remediation, January 2002. Furthermore, the Board has included terms under Part G Item 6 whereby the Licensee shall submit for review, within six (6) months of Licence issuance, a Closure and Remediation Report signed by an Engineer, for the site of the Solid Waste Facilities (used prior to 2002). This report is to describe the history of the site and its decommissioning, laboratory results from a contamination/environmental assessment study and also the Engineer's assessment of whether further reclamation is required at the site to mitigate the possibility of any contamination migration to surrounding freshwater systems.

### **Operation & Maintenance Plans**

In accordance with Part F, Item 1 of the expired Licence, the Licensee submitted, within their renewal application, a satisfactory Operation and Maintenance (O&M) Manual for the domestic and metal dump sites. The purpose of the O&M Manual is to assist the Licensee and its

contractors in carrying out the procedures relating to the on-site facilities. The O&M Manual demonstrates to the NWB that the Licensee is capable of operating and maintaining the infrastructure related to water use and waste disposal and of meeting the requirements of the Licence.

### **Abandonment and Restoration**

The Board was notified that a new solid waste site design is underway and the Board has approved the 2010 report entitled “Abandonment and Restoration Plan for the Municipal Dump Site in Resolute Bay, Nunavut” prepared by Arktis Solutions Inc. Given the five (5) year time lapse, the Board reminds the Licensee that all amendments to the submitted Abandonment and Restoration (A&R) Plan, under the general terms and conditions Part G, Item 1 in the Licence, be revised and submitted at least six (6) months prior to abandoning any facility under the scope of this renewal Licence.

### **Monitoring**

Results of the monitoring program required under the expired Water Licence have not been met. Most importantly, the monthly and yearly quantities of each category of waste were not documented (Part B, Item 1 c). This is an area of non-compliance that the NWB anticipates will be improved upon over the five (5) year duration of this Licence.

Given the recent concerns of contaminated soil and groundwater conditions during the summer months in both the domestic and metals waste site, an appropriate monitoring plan is required in order to determine the extent of contamination. The Board supports the monitoring recommendations made by Arktis Solutions Inc. in the Solid Waste Operations and Maintenance Plans, dated May 2014.

Given that both the domestic waste disposal and the bulky metal disposal sites are open to the public and lack of berms, gates, proper lighting, proper waste segregation and controls on dumping, the Board supports AANDC recommendation that the Licensee adopts more effective secondary containment, improved security on-site, and that all recommended monitoring and reporting results be submitted to the NWB as indicated in the Part B of the Licence. AANDC also recommends that the Licensee add the contact information for the AANDC Manager of Field Operations to the Spill Contingency Plan and also include a spill kit at the hazardous waste and bulky metals area.

Part H, Item 5 of the Licence also requires the Licensee to submit to the Board for review, a Quality Assurance/Quality Control (QA/QC) Plan. The QA/QC plan shall be accompanied by an approval letter from an accredited laboratory.

### **Engineered Drawings and Designs**

Part E, Item 4 of the expired Licence, required the Licensee is to provide to the Board for review as-built plans and drawings, for facilities included under the scope of that Licence, within ninety (90) days of completion of construction or, if already constructed, within ninety (90) days of issuance of the Licence. The Board notes that no drawings have been received by the NWB for

upgrades to the facility under this Licence. The Board highlights to the Applicant that as-built drawings for upgrades to the facility under this Licence are required, along with the submission of the Operations and Maintenance Manuals, upon completion of the facility upgrades, and prior to the expiration of this licence.



## NUNAVUT WATER BOARD WATER LICENCE RENEWAL

Licence No. **3BM-RES1520**

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

### HAMLET OF RESOLUTE BAY

(Licensee)

P.O BOX 60, RESOLUTE BAY, NUNAVUT, X0A 0V0

(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 renewal:

Licence Number/Type: 3BM-RES1520 TYPE "B"

Water Management Area: BATHURST AND CORNWALLIS ISLANDS WATERSHED (55)

Location: RESOLUTE BAY, CORNWALLIS ISLAND  
QIKIQTANI REGION, NUNAVUT

Classification: MUNICIPAL UNDERTAKING

Purpose: DEPOSIT OF WASTE

Quantity of Water use not to Exceed: NO AUTHORIZED USE OF WATER

Date of Licence Issuance: JUNE 17, 2015

Expiry of Licence: MARCH 29, 2020

This Licence renewal 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 deposit of Waste for a Municipal undertaking classified as per Schedule 1 of the *Regulations*, at the Hamlet of Resolute Bay, located within the Qikiqtani region of Nunavut, geographical coordinates are as follows:

Latitude: 74°43'01"N Longitude: 94°58'10"W

- a. This Licence is issued subject to the conditions contained herein with respect to 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*;

“**Addendum**” means the supplemental text that is added to a full plan or report usually included at the end of the document and is not intended to require a full resubmission of the revised report;

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

“**Applicant**” means the Licensee;

“**Appurtenant Undertaking**” means an undertaking in relation to which a 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*;

“**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*;

**“Freeboard”** means the vertical distance between Water line and crest on a dam or dyke's upstream slope;

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

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

**“Hazardous Waste”** means Waste classified as “hazardous” by Nunavut Territorial or Federal legislation, or as “dangerous goods” under the *Transportation of Dangerous Goods Act*;

**“Hazardous Waste Management Facility”** comprises the area and associated structures for containing hazardous waste as described in the Application for Water Licence renewal and associated documents filed by the Applicant on March 25, 2014;

**“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);

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

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

**“Modification”** means an alteration to a physical work that introduces a new structure or eliminates an existing structure and does not alter the purpose or function of the work, but does not include an expansion;

**“Monitoring Program”** means a monitoring program established to collect data on surface Water and groundwater quality to assess impacts to the freshwater aquatic environment of an appurtenant undertaking;

**“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/2013-69 18th April, 2013*;

**“Solid Waste Facilities”** comprises the area and the associated structures for the containment of solid Waste as described in the Application for Water Licence renewal and associated documents filed by the Applicant on March 25, 2014;

**“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. A Spill Contingency Plan should follow a format similar to that found in *Guidelines for Spill Contingency Planning* (AANDC 2007);

**“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*.

### **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 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 for review, no later than March 31<sup>st</sup> of the year following the calendar year being reported, containing the following information:
  - a. tabular summaries of all data generated under the “Monitoring Program”;
  - b. summary of modifications to the “Monitoring Program”;



- c. the monthly and yearly quantities of all Waste types disposed of at the Solid Waste Facilities: bulky metal, hazardous, wood and soil;
  - d. a summary of modifications and/or major maintenance work carried out on the Solid Waste Facilities, including all associated structures and facilities;
  - e. a list of unauthorized discharges and summary of follow-up action taken;
  - f. a summary of any abandonment and restoration work completed during the year and an outline of any work anticipated for the next year;
  - g. Any updates or revisions for manuals and plans (*Including Operations and Maintenance Plans, Spill Contingency, Abandonment and Restoration, QA/QC*) as required by changes in operation and/or technology;
  - h. a summary of any studies, reports and plans requested by the Board that relate to Waste disposal or reclamation, and a brief description of any future studies planned;
  - i. summary of any inspections completed by federal or territorial authorities, geotechnical or municipal engineers, on undertakings related to Waste disposal, or reclamation activities and associated work carried out as a result of these inspections and any deficiencies; and
  - j. 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 comply with the “Monitoring Program” described in this Licence, and any amendments to the “Monitoring Program” as may be made from time to time, pursuant to the conditions of this Licence.
  4. The “Monitoring Program” and compliance dates specified in the Licence may be modified at the discretion of the Board.
  5. The Licensee shall install flow meters or other such devices, or implement suitable methods as required under Part H, Item 1.
  6. The Licensee shall, post the necessary signs, where possible, to identify the stations of the “Monitoring Program”. All signage postings shall be in the Official Languages of Nunavut, and shall be located and maintained to the satisfaction of an Inspector.
  7. 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/or 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.
  8. The Licensee shall, for all Plans submitted under this Licence, implement the Plan as approved by the Board in writing.

9. 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.
10. 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.
11. The Licensee shall ensure a copy of this Licence is maintained at the site of operations at all times. Any communication with respect to this Licence shall be made in writing to the attention of:
  - (a) **Manager of Licensing:**  
Nunavut Water Board  
P.O. Box 119  
Gjoa Haven, NU X0B 1J0  
Telephone: (867) 360-6338  
Fax: (867) 360-6369  
Email: [licensing@nwb-oen.ca](mailto:licensing@nwb-oen.ca)
  - (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
12. 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 English and Inuktitut.
13. 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.
14. This Licence is assignable as provided for in Section 44 of the *Act*.

**PART C: CONDITIONS APPLYING TO WATER USE**

1. No use of Water is authorized under this Licence.
2. The Licensee shall implement sediment and erosion control measures prior to and maintain as required during Hamlet operations, to prevent entry of sediment into Water.

**PART D: CONDITIONS APPLYING TO WASTE DISPOSAL**

1. The Licensee shall dispose of and permanently contain all solid waste at the Solid Waste Facilities or as otherwise approved by the Board in writing.
2. 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.
3. The Licensee shall provide a minimum of ten (10) days' notice to an Inspector, of the intent to open burn municipal Waste in accordance with the Government of Nunavut's Environmental Guideline for the Burning and Incineration of Solid Waste (2012), at the designated location at the Solid Waste Facilities, including the details of the types and quantity of Waste to be burned, proposed dates, protocols to be followed, ultimate disposal of residual ash and the person responsible for the activity.
4. The Licensee shall segregate and store all hazardous waste within the Solid Waste Facilities in such a manner as to prevent the deposit of deleterious substances into any Water, until such a time that the materials have been removed for proper disposal at an approved facility.

**PART E: CONDITIONS APPLYING TO MODIFICATIONS AND CONSTRUCTION**

1. The Licensee shall submit to the Board for approval in writing, for-construction design drawings, stamped and signed by a qualified Engineer registered in Nunavut, at least sixty (60) days prior to the construction of any dams, dykes or structures intended to contain, withhold, divert or retain Waste.
2. The Licensee may, without written consent from the Board, carry out Modifications to the Waste Disposal Facilities provided that such Modifications are consistent with the terms of this Licence and the following requirements are met:
  - a. the Licensee has notified the Board in writing of such proposed Modifications at least sixty (60) days prior to beginning the Modifications;
  - b. such Modifications do not place the Licensee in contravention of the Licence or the *Act*;
  - c. 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
  - d. the Board has not rejected the proposed Modifications.
3. The Modifications for which all of the conditions referred to in Part E, Item 2, have not been met, may only be carried out upon written approval from the Board.

4. The Licensee shall, within ninety (90) days of completion of the Modification or Construction of facilities and/or infrastructure associated with the project, submit to the Board for review, a construction summary report along with stamped as-built plans and drawings, providing explanation to reflect any deviations from the for construction drawings, taking into account construction and field decisions and how they may affect the performance of engineered facilities.
5. All activities shall be conducted in such a way as to minimize impacts on surface drainage and the Licensee shall immediately undertake any corrective measures in the event of any impacts on surface drainage.
6. The Licensee shall implement and maintain sediment and erosion control measures prior to and during activities carried out under this Part, to prevent negative impacts to Water resulting from the release of sediment and to minimize erosion.
7. With respect to earthworks, the deposition of debris or sediment into or onto any Water body is prohibited. These materials shall be disposed of at a distance of at least thirty-one (31) metres from the ordinary High Water Mark in such a fashion that they do not enter Water.
8. The Licensee shall only use material that is free of contaminants, for construction, operation, and maintenance activities and that is obtained from approved sources, demonstrated not to be potentially acid generating or metal leaching.

**PART F: CONDITIONS APPLYING TO OPERATION AND MAINTENANCE**

1. The submitted renewal application dated May 30, 2014 included an Operation and Maintenance Plan. This Operation and Maintenance Plan has been approved by the Board with the issuance of this Licence. The Licensee shall implement the Operation and Maintenance Plan for the Solid Waste Facilities, in accordance with Part B items 1 and 2 of this licence.
2. The Licensee shall submit to the Board for review, within six (6) months of the issuance of this Licence, a Long-term Solid Waste Management Plan for the Hamlet of Resolute Bay, that provides definitive objectives for building new or upgrading existing Solid Waste management infrastructure.
3. All Operation and Maintenance Plans developed shall be prepared in accordance with the appropriate sections of the Guidelines for the Preparation of an *Operation and Maintenance Manual for Sewage and Solid Waste Facilities in the Northwest Territories (1996)* and the *Guidelines for the Planning, Design, Operations and Maintenance of Modified Solid Waste Sites in the Northwest Territories (2003)*.
4. The Licensee shall submit to the Board for review with the annual report, an addendum to the Spill Contingency Plan that addresses the following:
  - a. The specific name and address of the owner or person in charge, management or

- control of the site(s);
  - b. The name, job title and 24-hour telephone number for the person(s) responsible for activating the Spill Contingency plan;
  - c. The contact information for the AANDC, Manager of Field Operations; and
  - d. Confirmation that a spill kit is available at the hazardous waste and bulky metals area.
- 5. An inspection of all engineered facilities related to the management of Waste shall be carried out by an Engineer at a minimum of once annually following spring freshette and during open water conditions in order to detect flow from the Solid Waste Facilities and, before commissioning any engineered facility related to the management of Waste. The Engineer's report shall be submitted to the Board within sixty (60) days of the inspection, including a cover letter from the Licensee outlining an implementation plan to address each of the Engineer's recommendations.
- 6. The Licensee shall perform more frequent inspections of the engineered facilities at the request of an Inspector.
- 7. If during the period of this Licence, an unauthorized discharge of Waste occurs, or if such a discharge is foreseeable, the Licensee shall:
  - a. employ the Spill Contingency Plan for the Hamlet of Resolute Bay. Take whatever steps are immediately practicable to protect human life, health and the environment;
  - b. report the incident immediately via the NWT/NU 24-Hour Spill Reporting Line at (867) 920-8130 and to the AANDC Manager of Field Operations at (867) 975-4295; and
  - c. for each spill occurrence, submit to the Inspector not later than thirty (30) days after initially reporting the event, a detailed report that provides the necessary information on the location (including the GPS coordinates), amount and type of spilled product, initial response action, remediation/clean-up, status of response (ongoing, complete), proposed disposal options for dealing with contaminated materials and any preventative measures to be implemented.
- 8. The Licensee shall, regardless of the quantity of releases of harmful substances, report to the NWT/NU Spill Line if the release is near or into a Water body.

**PART G: CONDITIONS APPLYING TO ABANDONMENT, RESTORATION OR TEMPORARY CLOSING**

- 1. The submitted renewal application dated May 30, 2014 included an Abandonment and Restoration Plan. This Abandonment and Restoration Plan has now been approved by the Board. The Licensee shall implement the Abandonment and Restoration Plan for the Solid Waste Facilities, in accordance with Part B of this licence.
- 2. The Licensee shall submit to the Board for approval in writing, an amendment to the

Abandonment and Restoration Plan reference in Part G, Item 1 at least six (6) months prior to abandoning any facilities or upon submission of the final design drawings for the construction of new facilities to replace existing ones.

3. The Licensee shall complete all restoration work within the time schedule specified in the Plan, or as subsequently revised and approved by the Board in writing.
4. The Licensee shall carry out progressive reclamation of any components of the project no longer required for the Licensee's operations.
5. In order to promote growth of vegetation and the needed microclimate for seed deposition, all disturbed surfaces shall be prepared by ripping, grading, or scarifying the surface to conform to the natural topography.
6. Areas that have been contaminated by hydrocarbons shall be reclaimed to meet objectives as outlined in the Government of Nunavut's Environmental Guideline for Site Remediation, January 2002. The use of reclaimed soils for the purpose of backfill or general site grading may be carried out only upon consultation and approval by the Government of Nunavut, Department of Environment and an Inspector.
7. The Licensee shall submit for review, within six (6) months of Licence issuance, a Closure and Remediation Report for the site of the Solid Waste Facilities used prior to 2002. This report is to be stamped by an Engineer and describe the history of the site and its decommissioning, and also the Engineer's assessment of whether further reclamation is required at the site to mitigate the possibility of contamination to surrounding freshwater systems.

## **PART H: CONDITIONS APPLYING TO THE MONITORING PROGRAM**

1. The Licensee shall maintain a Monitoring Program Station at the following location:

<b>Monitoring Program Station Number</b>	<b>Description</b>	<b>Frequency</b>	<b>Status</b>
1571-5	Runoff from the Solid Waste Facilities	Monthly	Active (Quality)

2. The Licensee shall provide the GPS coordinates (in degrees, minutes and seconds of latitude and longitude) of all locations where there is a deposit of Waste and all Monitoring Program Stations.

3. The Licensee shall confirm the locations and GPS coordinates for all Monitoring Program Stations referred to in Part H Item 1 with an Inspector.
4. The Licensee shall sample monthly any runoff or discharges at Monitoring Program Station 1571-5 and analyze for the following parameters:

Biological Oxygen Demand (BOD <sub>5</sub> )	Fecal Coliforms
Polycyclic Aromatic Hydrocarbons (PAHs)	pH
Benzene, Toluene, Ethyl benzene and Xylene (BTEX)	Total Phenols
Carbonaceous Biochemical Oxygen Demand (cBOD)	Conductivity
Total Organic Carbon (TOC)	Total Zinc
Total Suspended Solid	Oil and Grease (visual)
Nitrate-Nitrite	Ammonia Nitrogen
Chloride	Sulphate
Sodium	Potassium
Magnesium	Calcium
Total Hardness	Total Alkalinity
Total Arsenic	Total Aluminum
Total Cadmium	Total Chromium
Total Cobalt	Total Iron
Total Copper	Total Manganese
Total Lead	Total Nickel
Total Mercury	

5. The Licensee shall submit to the Board for review, within ninety (90) days of the issuance of the Licence, a Quality Assurance/Quality Control Plan based on 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 QA/QC Plan* INAC (1996). The Plan shall include a cover letter from an accredited laboratory confirming acceptance of the Plan for the monitoring and analyses to be performed under the Licence.
6. The Licensee shall conduct all sampling, sample preservation and analyses 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 a laboratory certified by the Canadian Association for Laboratory Accreditation (CALA).
7. All analyses shall be performed in a laboratory accredited according to ISO/IEC Standard 17025. The accreditation shall be current and in good standing.
8. The Licensee shall include all of the data and information required by the Monitoring Program and as requested by an Inspector within the annual report under Part B, Item 1.
9. Modifications to the Monitoring Program including the Monitoring Program Stations and parameters may be made only upon written approval of the Board.

10. Additional monitoring stations, sampling and analysis may be requested by an Inspector.