

NORTHWEST
TERRITORIES
WATER BOARD



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WATER REGISTER: N7L1-1824

May 21, 2008

Ms. Emma Pike
Project Manager
Contaminants and Remediation Directorate (CARD)
Indian and Northern Affairs Canada
P.O. Box 1500
YELLOWKNIFE, NT X1A 2R3

Dear Ms. Pike:

ISSUANCE OF A "B" TYPE LICENCE – JOHNSON POINT

Attached is a duplicate of Licence No. N7L1-1824 granted to CARD-Johnson Point by the Northwest Territories Water Board in accordance with the *Northwest Territories Waters Act*. The other original of this Licence has been filed with the Department of Indian Affairs and Northern Development in Yellowknife, Northwest Territories.

Please be advised that this letter with attached procedures, all inspection reports, and correspondence related thereto are part of the public Water Register, and are intended to keep all interested parties informed of the manner in which the Licence requirements are being met. All Water Register material will be considered when the Licence comes up for renewal or amendment.

The full cooperation of Contaminants and Remediation Directorate is anticipated.

Sincerely,

Rudy Cockney
Interim Chairman
N.W.T. Water Board

Attach.

**GENERAL PROCEDURES FOR THE ADMINISTRATION OF LICENCES
ISSUED UNDER THE NORTHWEST TERRITORIES WATERS ACT
IN THE NORTHWEST TERRITORIES**

1. At the time of issuance, a copy of the Licence is placed on the Water Register in the Office of the Northwest Territories Water Board in Yellowknife, and is then available to the public.
2. To enforce the terms and conditions of the Licence, the Minister of Indian Affairs and Northern Development has appointed Inspectors in accordance with Section 35(1) of the *Northwest Territories Waters Act*. The Inspectors coordinate their activities with officials of the Water Resources Division of the Department of Indian Affairs and Northern Development. The Inspector responsible for Licence No. N7L1-1824 is located in the North Mackenzie - Inuvik District Office.
3. To keep the Water Board and members of the public informed of the Licensee's conformity to Licence conditions, the Inspectors prepare reports which detail observations on how each item in the Licence has been met. These reports are forwarded to the Licensee with a covering letter indicating what action, if any, should be taken. The inspection reports and covering letters are placed on the public Water Register, as are any responses received from the Licensee pertaining to the inspection reports. It is therefore of prime importance that you react in all areas of concern regarding all inspection reports so that these concerns may be clarified.
4. If the renewal of Licence No. N7L1-1824 is contemplated it is the responsibility of the Licensee to apply to the Water Board for renewal of the Licence. The past performance of the Licensee, new documentation and information, and points raised during a public hearing, if required, will be used to determine the terms and conditions of any Licence renewal. Please note that if the Licence expires and another has not been issued, then water and waste disposal must cease, or you, the Licensee, would be in contravention of the *Northwest Territories Waters Act*. It is suggested that an application for renewal of Licence No. N7L1-1824 be made at least eight months in advance of the Licence expiry date.
5. If, for some reason, Licence No. N7L1-1824 requires amendment, then a public hearing may be required. You are reminded that applications for amendments should be submitted as soon as possible to provide the Water Board with ample time to go through the amendment process. The process may take up to six (6) months or more depending on the scope of the amendment requested.

6. Specific clauses of your Licence make reference to the Board, Analyst or Inspector. The contact person, address, phone and fax number of each is:

BOARD: Executive Director
Northwest Territories Water Board
Box 1326
YELLOWKNIFE, NT X1A 2N9
Phone No: (867) 765-0106
Fax No: (867) 765-0114

ANALYST: Analyst
Water Laboratory
Department of Indian Affairs
and Northern Development
Box 1500, 4601 - 52nd Avenue
YELLOWKNIFE, NT X1A 2R3
Phone No: (867) 669-2780
Fax No: (867) 669-2718

INSPECTOR: Inspector
North Mackenzie-Inuvik District Office
Department of Indian Affairs
and Northern Development
P.O. Box 2100
INUVIK, NT X0E 0T0
Phone No: (867) 777-3361
Fax No: (867) 777-2090

NORTHWEST TERRITORIES WATER BOARD

Pursuant to the *Northwest Territories Waters Act* and Regulations the Northwest Territories Water Board, hereinafter referred to as the Board, hereby grants to

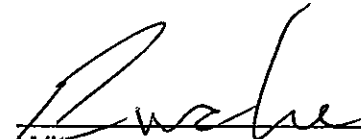
CONTAMINANTS AND REMEDIATION DIRECTORATE
(Licensee)
Indian and Northern Affairs Canada
P.O. Box 1500
of YELLOWKNIFE, NT X1A 2R3
(Mailing Address)


hereinafter called the Licensee, the right to alter, divert or otherwise use water subject to the restrictions and conditions contained in the *Northwest Territories Waters Act* and Regulations made thereunder and subject to and in accordance with the conditions specified in this Licence.

Licence Number	<u>N7L1-1824</u>
Licence Type	<u>"B"</u>
Water Management Area	<u>NORTHWEST TERRITORIES 07</u>
Location	<u>Johnson Point, Banks Island Latitude 72°45'10" North and Longitude 118°30' West, NORTHWEST TERRITORIES</u>
Purpose	<u>To use water and dispose of waste for industrial undertakings</u>
Quantity of Water Not to be Exceeded	<u>20 CUBIC METRES DAILY</u>
Effective Date of Licence	<u>JUNE 1, 2008</u>
Expiry Date of Licence	<u>MAY 31, 2013</u>

This Licence issued and recorded at Yellowknife includes and is subject to the annexed conditions.

NORTHWEST TERRITORIES WATER BOARD


Witness


Interim Chairman

PART A: SCOPE AND DEFINITIONS

1. Scope

- a) This Licence entitles INAC Contaminants and Remediation Directorate to use Water and dispose of Waste for industrial undertakings on Banks Island for the Johnson Point Project located at Latitude 72°45'10" North, and Longitude 118°30' West, Northwest Territories;
- b) 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 *Northwest Territories Waters 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 automatically amended to conform with such Regulations; and
- c) 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

In this Licence: **N7L1-1824**

"Act" means the *Northwest Territories Waters Act*;

"Analyst" means an Analyst designated by the Minister under Section 35(1) of the *Northwest Territories Waters Act*;

"Board" means the Northwest Territories Water Board established under Section 10 of the *Northwest Territories Waters Act*;

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

"Inspector" means an Inspector designated by the Minister under Section 35(1) of the *Northwest Territories Waters Act*;

"Licensee" means the holder of this Licence;

"Maximum Average Concentration" means the running average of any four (4) consecutive analytical results, or if less than four analytical results collected, and submitted to the Inspector in accordance with the sampling and analysis requirements specified in the "Surveillance Network Program";

"Minister" means the Minister of Indian Affairs and Northern Development;

"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 include an expansion;

"Project Description" refers to the report titled "Johnson Point Remediation Application for Water Licence", dated "February 13, 2008" and prepared by CARD;

"Sewage" means all toilet Waste and greywater;

"Toilet Wastes (Blackwater)" mean all human excreta and associated products, but does not include greywater;

"Regulations" mean Regulations proclaimed pursuant to Section 33 of the *Northwest Territories Waters Act*;

"Sump" means an excavation with an impermeable layer for the purpose of catching or storing fluids.

"Waste" means Waste as defined by Section 2 of the *Northwest Territories Waters Act*; and

"Waters" mean Waters as defined by Section 2 of the *Northwest Territories Waters Act*.

PART B: GENERAL CONDITIONS

1. The Licensee shall file an Annual Report with the Board not later than December 1st of the year reported which shall contain the following information:
 - a) the total quantity in cubic metres of fresh Water obtained from all sources;
 - b) the total quantities in cubic metres of each and all Waste discharged;
 - c) the location and direction of flow of all Waste discharged to the land or Water;

- d) a summary of any modifications carried out on the water supply and Waste disposal facilities, including all associated structures;
 - e) a list of spills and unauthorized discharges;
 - f) a summary of the remediation activities undertaken in the year being reported;
 - g) a description of the planned activities for the upcoming field season; and
 - h) any other details on water use or Waste disposal requested by the Board within forty-five (45) days before the annual report is due.
2. Meters, devices or other such methods used for measuring the volumes of Water used and Waste discharged shall be installed, operated and maintained by the Licensee to the satisfaction of an Inspector.
 3. The Licensee shall comply with the "Surveillance Network Program" annexed to this Licence, and any amendment to the said "Surveillance Network Program" as may be made from time to time, pursuant to the conditions of this Licence.
 4. The "Surveillance Network Program" and compliance dates specified in the Licence may be modified at the discretion of the Board.
 5. All monitoring data shall be submitted in printed form and electronically in spreadsheet format on a diskette or other electronic forms acceptable to the Board.
 6. All reports shall be submitted to the Board in printed format accompanied by an electronic copy in a common word processing format on diskette or other electronic forms acceptable to the Board.
 7. The Licensee shall ensure a copy of this Licence is maintained at the site of operation at all times.
 8. The Licensee shall, at a minimum, implement all of the policies, practices, mitigative measures, recommendations and procedures for the protection of the environment referred to in its Project Description.

PART C: CONDITIONS APPLYING TO WATER USE

1. The daily quantity of Water used for all purposes shall not exceed 20 cubic metres.
2. No works shall occur in Unnamed Creek after September 15th of each year, unless approved by an Inspector.
3. Where practical, the Licensee shall minimize freshwater use by serially transferring Water from one tank to another.
4. The Water intake hose used on the Water pumps shall be equipped with a screen with a mesh size sufficient to ensure no entrainment of fish (2.54 mm).

PART D: CONDITIONS APPLYING TO WASTE DISPOSAL

1. All Greywater from the camp shall be directed to the sump or disposed of in a manner as approved by an Inspector.
2. All Greywater must meet the following effluent parameters prior to disposal to the environment:

Sample Parameter	Maximum Average Concentration
Mineral Oil and Grease	5.0 mg/L
Total Suspended Solids	100 mg/L
Residual Chlorine	0.1mg/L

3. All Toilet Wastes (Blackwater) from the camp will be incinerated or disposed of in a manner as approved by an Inspector.
4. The Licensee shall dispose of all solid Wastes in a manner acceptable to the Inspector.
5. All Waste Water derived from soil treatment and tank cleaning operations must meet the following effluent parameters prior to disposal to the environment:

Parameter	Maximum Average Concentration
Volatile hydrocarbons (VH) (W5-10)	15 mg/L
Extractable hydrocarbons (EH) (W10-19)	5 mg/L
Non-aqueous Phase Liquids	Non visible sheen
pH	6-9

6. If tank bottom sludge is consolidated with the hydrocarbon waste stream or treated separately, the waste stream must also meet the following effluent parameters prior to discharge:

Parameter	Maximum Average Concentration
Arsenic (total)	100 µg/L
Cadmium (dissolved)	10 µg/L
Chromium (total)	100 µg/L
Cobalt (dissolved)	50 µg/L
Copper (dissolved)	200 µg/L
Lead (dissolved)	50 µg/L
Mercury (total)	0.6 µg/L
Nickel (dissolved)	200 µg/L
Polychlorinated Biphenyls (total) Discharged to barren land	50 µg/L
Polychlorinated Biphenyls (total) Discharged to vegetation	5.0 µg/L
Zinc (total)	1000 µg/L

7. All 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 as may be approved by an Analyst.
8. The Licensee must discharge all Greywater and Waste water derived from sludge consolidation, soil treatment and tank cleaning operations at least thirty (30) metres from any natural water drainage and at least one hundred (100) metres from fish-bearing Waters, or as approved by an Inspector.
9. The Licensee must notify an Inspector at least five (5) days prior to any discharge of Waste Water from the holding tank.

10. The Licensee may commence the discharge of Waste Water from the holding tank upon receipt of an Inspector's approval.
11. The Licensee shall submit to the Board a letter of notification prior to the transportation of Waste from the site, outlining an agreement between third parties to harbour, transport or dispose of Waste along with details including, but not limited to, type of Waste, quantities of Waste, and ultimate disposal location, if Waste is to be transported away from the site.

PART E: CONDITIONS APPLYING TO MODIFICATIONS

1. The Licensee may, without written approval from the Board, carry out Modifications to the planned undertakings provided that such Modifications are consistent with the terms of this Licence and the following requirements are met:
 - a) the Licensee has notified an Inspector in writing of such proposed Modifications at least five (5) days prior to beginning the Modifications;
 - b) such Modifications do not place the Licensee in contravention of either this Licence or the Act;
 - c) an Inspector has not, during the five (5) days following notification of the proposed Modifications, informed the Licensee that review of the proposal will require more than five (5) days; and
 - d) an Inspector has not rejected the proposed Modifications.
2. Modifications for which all of the conditions referred to in Part E, Item 1 have not been met may be carried out only with written approval from an Inspector.
3. The Licensee shall provide to the Board as-built plans and drawings of the Modifications referred to in this Licence within ninety (90) days of completion of the Modifications.

PART F: CONDITIONS APPLYING TO CONTINGENCY PLANNING

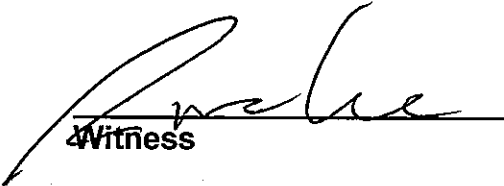
1. The Licensee shall submit to the Board for approval a Spill Contingency Plan prior to commencing operations on-site.
2. The Licensee shall implement the Spill Contingency Plan as approved and, until such time the Plan is approved, the Licensee shall implement the Plan as submitted.
3. The Licensee shall maintain a copy of the approved Spill Contingency Plan onsite in a readily available location, to the satisfaction of an Inspector.
4. The Licensee shall ensure that petroleum products, hazardous material and other Wastes associated with the project do not enter any Waters.
5. The Licensee shall ensure that all containment berms are constructed of an impermeable material, to the satisfaction of an Inspector.
6. If, during the period of this Licence, an unauthorized discharge of Waste occurs, or if such a discharge is foreseeable, the Licensee shall:
 - a) report the incident immediately via the 24 Hour Spill Reporting Line (867) 920-8130; and
 - b) submit to an Inspector a detailed report on each occurrence not later than thirty (30) days after initially reporting the event.

PART G: CONDITIONS APPLYING TO ABANDONMENT AND RESTORATION

1. Upon completion of all activities, the Licensee shall ensure that all equipment and materials are removed from the site. Other final restoration activities as outlined in the Project Description should be implemented to the satisfaction of an Inspector.
2. The licensee shall submit a Johnson Point Landfill Monitoring Plan to the Board for approval within 12 months of the issuance of the Licence.
3. The Licensee shall implement the Johnson Point Landfill Monitoring Plan as approved by the Board.
4. Prior to the expiry of the Licence, the Licensee shall provide a report describing the remediation and restoration activities undertaken under the term of the Water Licence, including all monitoring results and analytical data

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in relation to the effectiveness of the remediation undertaken. Any sampling for total petroleum hydrocarbons should include analysis and results for F1 (C₆ – C₁₀), F2 (C₁₀-C₁₆), F3(C₁₆-C₃₄) and F4(>C₃₄) and be included in the final remediation and restoration activities report.

NORTHWEST TERRITORIES WATER BOARD



Witness



Interim Chairman

NORTHWEST TERRITORIES WATER BOARD

LICENSEE: Contaminants and Remediation Directorate, DIAND

LICENCE NUMBER: N711-1824

EFFECTIVE DATE OF LICENCE: June 1, 2008

EFFECTIVE DATE OF SURVEILLANCE NETWORK PROGRAM: June 1, 2008

SURVEILLANCE NETWORK PROGRAM

A. Location of Sampling Stations

<u>Station Number</u>	<u>Description</u>
1824-1	Discharge from the Greywater treatment facility.
1824-2	Discharges from treatment facilities for tank cleaning, soil treatment and equipment cleaning.

B. Sampling and Analysis Requirements

1. Effluent at "Surveillance Network Program" Station Number 1824-1 shall be sampled on the first day of discharge and bi-weekly thereafter during discharge and analyzed for the following parameters:

Mineral Oil and Grease	Total Suspended Solids
Residual Chlorine	

An observance for visible oil sheen should also be made and recorded.

2. Effluent from "Surveillance Network Program" Station Number 1824-2 shall be sampled on the first day of discharge and biweekly thereafter during discharge and analyzed for the following parameters:

Total Hydrocarbons	Volatile Hydrocarbons
Extractable Hydrocarbons	pH

An observance for visible oil sheen should also be made and recorded.

3. If tank bottom sludge is consolidated with the hydrocarbon waste stream or treated separately, effluent from "Surveillance Network Program" Station Number 1824-2 shall be sampled on the first day of discharge and biweekly thereafter during discharge and analyzed for the following parameters:

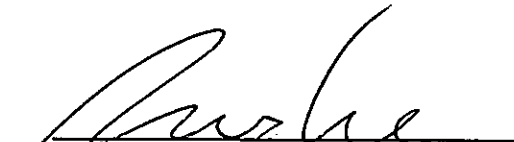
Total Arsenic	Dissolved Cadmium
Total Chromium	Dissolved Cobalt
Dissolved Copper	Dissolved Lead
Total Mercury	Dissolved Nickel
Total Zinc	Total PCB

4. Additional or more frequent sample collection may be required at the request of an Inspector.
5. All sampling, sample preservation and analyses shall be conducted in accordance with methods prescribed in the current edition of "Standard Methods of "Standard Methods for the Examination of Water and Wastewater", or by such other methods approved by an Analyst.
6. All analyses shall be performed in a laboratory approved by an Analyst.
7. The Licensee shall submit to an Analyst within two (2) weeks of the issuance of this licence a Quality Assurance/Quality Control Plan.
8. The Plan referred to in Part B, Item 7 shall be implemented as approved by an Analyst.

C. Reports

1. The Licensee shall, within thirty (30) days following the month being reported, submit to the Board all data and information required by the "Surveillance Network Program" including the results of the Quality Assurance Plan.

NORTHWEST TERRITORIES WATER BOARD


Witness


Interim Chairman