



P.O. Box 119  
GJOA HAVEN, NU X0B 1J0  
TEL: (867) 360-6338  
FAX: (867) 360-6369

ᓄᓇᑭᓃ ᐃᓕᓕᓄᐃᓃ ᑲᓄᓕᓄᐃᐅ  
NUNAVUT WATER BOARD  
NUNAVUT IMALIRIYIN KATIMAYINGI  
OFFICE DES EAUX DU NUNAVUT

File No.: **2BE-HIG0712**

June 8, 2007

Mr. Andrew Mitchell, P.Geo.  
Wolfden Resources Inc.  
309 Court Street South  
Thunder Bay, ON P37 271  
Email: [Andrew.Mitchell@wolfdenresources.com](mailto:Andrew.Mitchell@wolfdenresources.com)

**RE: NWB Licence No. 2BE-HIG0712**

Dear Mr. Mitchell:

Please find attached Licence No. **2BE-HIG0712** issued to Wolfden Resources Inc. by the Nunavut Water Board pursuant to its authority under Article 13 of the *Agreement between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in Right of Canada*. 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 will be in contravention of the Nunavut Land Claims Agreement. 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 30 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 acknowledged by the Manager of Licensing.

The NWB strongly recommends that the Licensee consult the comments received by the interested persons on issues identified. The NWB notes that, among others, there is a NIRB Decision requirement to install an incineration device capable of meeting emission limits established under the Canada-wide Standards (CWS) for Dioxins and Furans and the CWS for Mercury Emissions. This information is attached for your consideration.

Sincerely,



Thomas Kabloona  
A/Chief Executive Officer

TK/pb

Enclosure: Licence No. **2BE-HIG0712**  
Comments GN-DOE, INAC and EC

cc:	Andrew Keim	INAC
	Carson Gillis	NTI
	Cindy Parker	EC
	Colette Spagnuolo	INAC
	Earle Baddaloo	GN
	Eric Calder	NWMB
	Geoff Clark	KIA
	Jim Rogers	INAC
	John Dawe	GN
	Paul Savoie	DFO
	Peter Kusugak	INAC

## DECISION

### LICENCE NUMBER: 2BE-HIG0712

This is the decision of the Nunavut Water Board (NWB) with respect to an application for a renewal of a Water Licence dated February 9, 2007 made by:

#### WOLFDEN RESOURCES INC.

to allow for the use of water and disposal of waste during camp activities and exploration drilling operations at the High Lake Project located within the Kitikmeot Region, Nunavut generally located at the geographical coordinates as follows:

Latitude: 67°22'42"N      Longitude: 110°50'30"W (Existing camp)  
Drilling locations – as specified in the renewal application


### DECISION

After having been satisfied that the application was for a location within an area in which there is no valid Land Use Plan and after having been advised by the Nunavut Impact Review Board that the application could proceed without a review pursuant to S. 12.4.4(a), 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 (NWNSRTA)* 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 *NWNSRTA*, waived the requirement to hold a public hearing, and determined that:

**Licence Number 2BE-HIG0712 be issued subject to the terms and conditions contained therein.  
(Motion #: 2007-11)**

SIGNED this 18<sup>th</sup> day of May, 2007 at Gjoa Haven, NU.

  
\_\_\_\_\_  
Thomas Kabloona  
A/Chief Executive Officer

TK/pb

**LICENCE 2BE-HIG0712**

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

**WOLFDEN RESOURCES INC.**

(Licensee)

of

**403 – 1113 Jade Court, Thunder Bay ON P7B 6M7**

(Mailing Address)

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

**2BE-HIG0712**

Licence Number

**NUNAVUT 07**

Water Management Area

**HIGH LAKE PROJECT**

Location

**WATER USE AND WASTE DISPOSAL**

Purpose

**MINING AND MILLING – TYPE “B”**

Classification of Undertaking

**100 CUBIC METRES PER DAY**

Quantity of Water Not to Exceed


**May 18, 2007**

Date of Licence

**May 31, 2012**

Expiry Date of Licence

Dated this 18<sup>th</sup> day of May, 2007 at Gjoa Haven, NU.

  
Thomas Kabloona  
A/Chief Executive Officer

**PART A: SCOPE, DEFINITIONS AND ENFORCEMENT**

**1. Scope**

This Licence allows for the use of water and the disposal of waste for an undertaking classified as Mining and Milling as per Schedule II of the *Regulations* at the High Lake Project, located approximately 175 km west-northwest of Kugluktuk within the Kitikmeot Region, Nunavut. Camp is located at Latitude: 67°22'42"N Longitude: 110°50'30"W.

- i. 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;
- ii. 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;

**“Appurtenant Undertaking”** means an undertaking in relation to which a use of water or a deposit of waste is permitted by a licence issued by the Board;

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

**“Engineer”** means a professional engineer registered to practice in Nunavut in accordance with the Engineering, Geological and Geophysical Act (Nunavut) S.N.W.T.

1998, c.38, s.5;

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

**“ICP Scan”** means the laboratory method for determining trace metals in water through Emission Spectroscopy using inductively coupled plasma (including up to approximately 32 elements depending on the laboratory performing the analysis);

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

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

**“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;

**“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 *Northwest Territories Water Regulations* sor/93-303 8th June, 1993, omitting Section 5, Water Use or Waste Deposit Without a Licence;

**“Sewage”** means all toilet wastes and greywater;

**“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;

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

**“Waste”** means, as defined in S.4 of the *Act*, any substance that, by itself or in combination with other substances found in water, would have the effect of altering the quality of any water to which the substance is added to an extent that is detrimental to its use by people or by any animal, fish or plant, or any water that would have that effect because of the quantity or concentration of the substances contained in it or because it has been treated or changed, by heat or other means.

**3. Enforcement**

- i. 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*;
- ii. All inspection and enforcement services regarding this Licence will be provided by Inspectors appointed under the *Act*; and
- iii. For the purpose of enforcing this Licence and with respect to the use of water and deposit or discharge of waste by the Licensee, Inspectors appointed under the *Act*, hold all powers, privileges and protections that are conferred upon them by the *Act* or by other applicable law.

**PART B: GENERAL CONDITIONS**

1. The water use fees of \$30, payable to the Receiver General for Canada, shall be sent to the Board annually in advance of any use in accordance with Section 9 of the *Regulations*.
2. 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 which shall contain the following information:
  - i. A summary report of water use and waste disposal activities, including:
  - ii. A list of unauthorized discharges and a summary of follow-up actions taken;
  - iii. An up-to-date copy of the Spill Contingency Plan, including contact information;
  - iv. A description of all progressive and or final reclamation work undertaken, including photographic records of site conditions before, during and after completion of operations;
  - v. A summary of all information requested and results of the Monitoring Program; and
  - vi. Any other details on water use or waste disposal requested by the Board by November 1 of the year being reported.
3. 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.
4. The Licensee shall install flow meters or other such devices, or implement suitable methods required for the measuring of water volumes, to be operated and maintained to

the satisfaction of an Inspector.

5. 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:

**(ii) 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](mailto:licensing@nunavutwaterboard.org)

**(iii) Inspector Contact:**

Water Resources Officer, INAC  
Nunavut District, Nunavut Region  
P.O. Box 100  
Iqaluit, NU X0A 0H0  
Telephone: (867) 975-4295  
Fax: (867) 979-6445

6. 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.
7. The Licensee shall ensure that any document(s) or correspondence submitted by the Licensee to the Board is received and acknowledged by the Manager of Licensing.
8. This Licence is not assignable except as provided 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 High Lake. Drill water shall be obtained from local water source(s), proximal to the drilling targets as outlined in the application. The volume of water for the purposes of this Licence shall not exceed 100 cubic meters per day.
2. Streams cannot be used as a water source unless authorized and approved by the Board.
3. If the Licensee requires water in sufficient volume that the source water body may be drawn down the Licensee shall, at least 30 days prior to commencement of use of water, submit to the Board for approval 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 operation 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 (30) 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 authorized by the Board.
2. The Licensee shall not practice open burning or on-site land filling of domestic waste, unless otherwise approved by the Board
3. The Licensee is authorized to dispose of all acceptable food waste, paper waste and untreated wood products in an incinerator.
4. The Licensee shall provide to the Board, documented authorization from the City of Yellowknife, NT prior to the backhauling of any waste.
5. The Licensee shall backhaul and dispose of all hazardous wastes, waste oil and non-combustible waste generated through the course of the operation in an approved waste disposal site.
6. The Licensee shall maintain records of all waste backhauled and records of confirmation of proper disposal of backhauled waste. These records shall be made available to an Inspector upon request.
7. The Licensee shall contain all greywater in a sump located at a distance of at least thirty (30) metres above the ordinary high water mark of any water body, at a site where direct flow into a water body is not possible and no additional impacts are created, Unless otherwise approved by the Board,.
8. For any camp with a design population under 300 person days per year and less than 1,000 person days for the life of the camp, the Licensee shall contain all toilet wastes in latrine pits or use incineration, chemical, portable or composting toilets. Latrine pits

shall be located at a distance of at least thirty (30) metres above the ordinary high water mark of any water body, treated with lime and covered with native material to achieve the pre-existing natural contours of the land prior to abandonment.

9. For any camp with a design population over 300 and less than 2,000 person days per year, and less than 5,000 person days for the life of the camp, the Licensee shall dispose of all toilet wastes through incineration, chemical or composting toilets. Any remaining residue generated through the course of the operation shall be backhauled and disposed of in an approved waste disposal site.
10. The proponent shall ensure that any hazardous materials, including waste oil, receive proper treatment and disposal at an approved treatment facility.

**PART E: 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 immediate banks except what is for immediate use. Camps shall be located such as to minimize impacts on surface drainage.
2. 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.
3. Winter lake and stream crossings, including ice bridges, shall be constructed entirely of water, ice or snow. The Licensee should 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 (30) metres from the ordinary high water mark in such a fashion that they do not enter the water.

**PART F: CONDITIONS APPLYING TO DRILLING OPERATIONS**

1. The Licensee shall not conduct any land based drilling within thirty (30) metres of the ordinary high water mark of any water body, unless otherwise approved by the Board.
2. The Licensee shall ensure that all drill waste, including water, chips, muds and salts ( $\text{CaCl}_2$ ) in any quantity or concentration, from land-based and on-ice drilling, shall be disposed of in a properly constructed sump or an appropriate natural depression located at a distance of at least thirty (30) metres from the ordinary high water mark of any adjacent water body, where direct flow into a water body is not possible and no

additional impacts are created.

3. If artesian flow is encountered, drill holes shall be immediately sealed and permanently capped to prevent induced contamination of groundwater or salinization of surface waters. The Licensee shall report all artesian flow occurrences within the Annual Report, including the location (GPS coordinates) and dates.
4. Where drilling activity has penetrated below the permafrost layer, the NWB requests that the proponent record the depth of permafrost and location of the drill hole to be included within the Annual Report.
5. Drilling additives or mud shall not be used in connection with holes drilled through lake ice unless they are re-circulated or contained such that they do not enter the water, or are demonstrated to be non-toxic.
6. For "on-ice" drilling where drill additives are not being used, return water released must be nontoxic, and not result in an increase in total suspended solids in the immediate receiving waters above the Canadian Council of Ministers for the Environment, Guidelines for the Protection of Freshwater Aquatic Life (i.e. 10mg/L for lakes with background levels under 100 mg/L, or 10% for those above 100mg/L).
7. The Licensee shall establish water quality conditions prior to and upon completion of any drilling program through lake ice.

**PART G: CONDITIONS APPLYING TO MODIFICATIONS**

1. The Licensee may, without written consent from the Board, carry out Modifications to the Water Supply Facilities and Waste Disposal Facilities provided that such Modifications are consistent with the terms of this Licence and the following requirements are met:
  - i. the Licensee has notified the Board in writing of such proposed Modifications at least sixty (60) days prior to beginning the Modifications;
  - ii. such Modifications do not place the Licensee in contravention of the Licence or the *Act*;
  - iii. 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
  - iv. the Board has not rejected the proposed Modifications.
2. Modifications for which all of the conditions referred to in Part G, Item 1 have not been met can be carried out only with written approval from the Board.

3. The Licensee shall provide as-built plans and drawings of the Modifications referred to in this Licence within ninety (90) days of completion of the Modification. These plans and drawings shall be stamped by an Engineer.

**PART H: CONDITIONS APPLYING TO SPILL CONTINGENCY PLANNING**

1. The Board has approved the Plan entitled "Spill Contingency Plan" dated 19 January 2007 that was submitted as additional information with the Application.
2. The Licensee shall submit within (30) days of issuance of the Licence, an Addendum to the Plan referred to in Part H, Item 1, to address issues identified by INAC, EC, and GN-DOE in the application review process.
3. 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, unless directed otherwise by an Inspector.
4. The Licensee shall ensure that any chemicals, petroleum products or wastes associated with the project do not enter water. All sumps and fuel caches shall be located at a distance of at least thirty (30) metres from the ordinary high water mark of any adjacent water body and inspected on a regular basis.
5. 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 motor fluids and other waste and contain potential spills.
6. If during the term of this Licence, an unauthorized discharge of waste occurs, or if such a discharge is foreseeable, the Licensee shall:
  - i. Employ the Spill Contingency Plan;
  - ii. Report the spill immediately to the 24-Hour Spill Line at (867) 920-8130 and to the Inspector at (867) 975-4295; and
  - iii. For each spill occurrence, submit to the Inspector, no later than thirty (30) days after initially reporting the event, a detailed report that will include the amount and type of spilled product, the GPS location of the spill, and the measures taken to contain and clean up the spill site.

**PART I: CONDITIONS APPLYING TO ABANDONMENT AND RESTORATION OR TEMPORARY CLOSING**

1. The Board has approved the Plan entitled "Abandonment and Restoration Plan" dated 19 January 2007 that was submitted as additional information with the Application.
2. The Licensee shall submit within (30) days of issuance of the Licence, an Addendum to the Plan referred to in Part I, Item 1, to address issues identified by INAC and GN-DOE in the application review process.
3. 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, unless directed otherwise by an Inspector.
4. The Licensee shall complete all restoration work prior to the expiry of this Licence.
5. The Licensee shall carry out progressive reclamation of any components of the project no longer required for the Licensee's operations.
6. When possible to do so, the Licensee shall backfill and restore, to the satisfaction of an Inspector, all sumps to the pre-existing natural contours of the land.
7. The Licensee shall remove from the site infrastructures and site material, including but not limited to, all fuel caches, drums, barrels, buildings and contents, docks, water pumps and lines, material and equipment before the expiry of this Licence.
8. All roads and airstrip, if any, shall be re-graded to match natural contour to reduce erosion.
9. All culverts shall be removed and the drainage opened up to match the natural channel. Measures shall be implemented to minimize erosion and sedimentation.
10. In order to promote growth of vegetation and the needed microclimate for seed deposition, all disturbed surfaces shall be prepared by ripping, grading, or scarifying the surface to conform to the natural topography.
11. Areas that have been contaminated by hydrocarbons from normal fuel transfer procedures shall be reclaimed to the satisfaction of an Inspector. The use of reclaimed soils for the purpose of back fill or general site grading may be carried out only upon approval by an Inspector.
12. Drill holes and disturbed areas will be restored to natural conditions immediately upon completion of the drilling. The reclamation of drill holes must include the removal of any drill casing materials and the capping of holes with a permanent seal.

13. The Licensee may store drill core produced by the appurtenant undertaking in an appropriate manner and location at least thirty (30) metres above the ordinary high water mark of any adjacent water body, where any direct flow into a water body is not possible and no additional impacts are created, or as directed by an Inspector.
14. All disturbed areas shall be contoured and stabilized upon completion of work and restored to a pre-disturbed state.

**PART J: CONDITIONS APPLYING TO THE MONITORING PROGRAM**

1. The Licensee shall measure and record, in cubic metres, the daily quantities of water utilized for camp, drilling and other purposes.
2. The Licensee shall provide the GPS co-ordinates (in degrees, minutes and seconds of latitude and longitude) of all locations where sources of water are utilized for all purposes.
3. 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 and drilling operations are deposited.
4. The Licensee shall obtain representative samples of the water column below any ice where required under Part F, Item 8. Monitoring shall include but not be limited to the following:  
  
Total Suspended Solids  
pH  
Electrical Conductivity, and  
Total Trace Metals as determined by a standard ICP Scan (to include at a minimum, the following elements: Al, Sb, Ba, Be, Cd, Cr, Co, Cu, Fe, Pb, Li, Mn, Mo, Ni, Se, Sn, Sr, Tl, Ti, U, V, Zn), and  
Trace Arsenic and Mercury
5. 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.
6. All analyses shall be performed in a laboratory accredited according to ISO/IEC Standard 17025. The accreditation shall be current and in good standing.
7. An Inspector may impose additional monitoring requirements.
8. The Licensee shall include in the Annual Report required under Part B, Item 2 all data, monitoring results and information required by this Part.