

# 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

BHP MINERALS CANADA LTD.  
(Licensee)

of 1600, 1050 WEST PENDER STREET, VANCOUVER, B.C. V6E 3S7  
(Mailing Address)

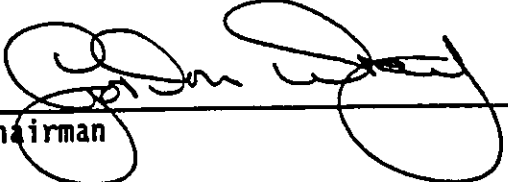
hereinafter called the Licensee, the right to alter, divert or otherwise use water subject to the restrictions and conditions contained in the Northwest Territories Waters Act and Regulations made thereunder and subject to and in accordance with the conditions specified in this Licence.

Licence Number	<u>N7L2-1652</u>
Licence Type	<u>"B"</u>
Water Management Area	<u>NORTHWEST TERRITORIES 07</u>
Location	<u>Boston Gold Project</u> <u>Latitude 67° 39' North and</u> <u>Longitude 106° 22' West</u> <u>NORTHWEST TERRITORIES</u>
Purpose	<u>WATER USE AND WASTE DISPOSAL</u>
Description	<u>FOR EXTRACTION OF A BULK SAMPLE</u>
Quantity of Water Not to be Exceeded	<u>150 CUBIC METRES PER DAY</u>
Effective Date of Licence	<u>August 1, 1995</u>
Expiry Date of Licence	<u>July 31, 1998</u>

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

NORTHWEST TERRITORIES WATER BOARD

Pamela R. LeMoine  
Witness

  
Chairman

## **PART A: SCOPE AND DEFINITIONS**

### **1. Scope**

- a) This Licence entitles BHP Minerals Canada Ltd. to use water and dispose of waste for the extraction of a bulk sample, and associated uses at the Boston Gold Project in the Spyder Lake area, Northwest Territories (Latitude 67°39'N., Longitude 106°22'W.);
- b) The Licensee shall have applied for and received a new Licence for mining and milling undertakings before any ore bodies in the area referred to in Part A, Item 1(a) are brought into production, other than for the mining of a bulk ore sample;
- c) This Licence is issued subject to the conditions contained herein with respect to the disposal of underground 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 deposit 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
- d) Compliance with the terms and conditions of this Licence does not absolve the Licensee from responsibility for compliance with the requirements of other Federal, Territorial or Municipal legislation.

### **2. Definitions**

In this Licence N7L2-1652:

**"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;

**"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;

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

**"Sump"** means an excavation for the purpose of catching or storing water in an underground working or at the bottom of a shaft;

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

**"Average Concentration"** means the running average of any four consecutive analytical results submitted to the Board in accordance with the sampling and analysis requirements specified in the "Surveillance Network Program";

**"Minewater"** means groundwater or any other water which is pumped or flows out of any underground workings or open pits; and

**"Waste Rock"** means all rock materials, except ore and tailings, which are produced as a result of mining operations.

#### **PART B: GENERAL CONDITIONS**

1. The water use fee shall be paid annually in advance.
2. Prior to the use of water or the deposit of waste for any undertaking directly associated with the extraction of a bulk sample, the Licensee shall have posted and shall maintain a Security Deposit in the amount of Twenty Thousand (\$20,000.00) Dollars pursuant to Section 17(1) of the Act and Section 12 of the Regulations. The Security Deposit shall be maintained until such time as the Board is satisfied that the Licensee has complied with all provisions of the final Abandonment and Restoration Plan. This clause shall survive the expiry of this Licence or renewals thereof.
3. The Licensee shall file an annual report with the Board not later than March 31st of the year following the calendar year reported which shall contain the following information:
  - a) the monthly and annual quantities in cubic metres of water pumped from Spyder Lake;
  - b) the monthly and annual quantities in cubic metres of minewater pumped from underground;
  - c) tabular summaries of all data generated under the "Surveillance Network Program";
  - d) a summary of modifications and/or major maintenance work carried out on the waste disposal facilities, including all associated structures;
  - e) a summary of exploration and development activities as they relate to water use and waste disposal;
  - f) a list of any unauthorized discharges;
  - g) a summary of any abandonment and restoration work completed during the year and an outline of any work anticipated for the next year;

- h) results from acid generating potential samples collected on ore and waste rock as referred to in Part D, Item 6; and
  - i) any other details on water use and waste disposal requested by the Board by November 1st of the year being reported.
- 
- 4. 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.
  - 5. The "Surveillance Network Program" and compliance dates specified in this Licence may be modified at the discretion of the Board.
  - 6. Meters, devices or other such methods 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.
  - 7. The Licensee shall, within thirty (30) days prior to the use of water or the discharge of a waste, post the necessary signs to identify the stations of the "Surveillance Network Program". All postings shall be located and maintained to the satisfaction of an Inspector.
  - 8. The Licensee shall ensure a copy of this Licence is maintained at the site of operation at all times.

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

- 1. The Licensee shall obtain all water from Spyder Lake or as otherwise approved by the Board.
- 2. The daily quantity of water used for all purposes shall not exceed 150 cubic metres.
- 3. 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.

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

- 1. The Licensee shall, by October 31, 1995, submit to the Board for approval a plan which proposes methods of treatment of minewater, should it be encountered, as well as runoff water from ore and waste rock storage areas. The plan shall include a site map identifying all receiving areas.

2. The Licensee shall implement the plan referred to in Part D, Item 1 as and when approved by the Board.
3. All waste discharged ~~should~~ <sup>shall</sup> meet the following effluent quality requirements:

PARAMETER	MAXIMUM AVERAGE CONCENTRATION	MAXIMUM CONCENTRATION OF ANY GRAB SAMPLE
Total Arsenic	0.50 mg/L	1.0 mg/L
Total Copper	0.30 mg/L	0.6 mg/L
Total Lead	0.20 mg/L	0.4 mg/L
Total Nickel	0.50 mg/L	1.0 mg/L
Total Zinc	0.50 mg/L	1.0 mg/L
Total Suspended Solids	25.0 mg/L	50.0 mg/L
Oil and Grease		5.0 mg/L

The waste discharged shall have a pH between 6.0 and 9.5.

4. The Licensee shall provide notice to an Inspector and implement the approved plan in Part D, Item 1 prior to any discharge of waste.
5. All waste discharged shall be conducted in such a manner to minimize surface erosion.
6. The Licensee shall implement an acid generation potential monitoring plan for the ore and waste rock generated during the extraction of the bulk sample.

#### **PART E: CONDITIONS APPLYING TO MODIFICATIONS**

1. The Licensee may, without written consent 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 the Board in writing of such proposed modifications at least thirty (30) days prior to beginning the modifications;
  - b) such modifications do not place the Licensee in contravention of either this Licence or the Act;
  - c) the Board has not, during the thirty (30) days following notification of the proposed modifications, informed the Licensee that review of the proposal will require more than thirty (30) days; and

- d) the Board 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, can be carried out only with written consent from the Board.

**PART F: CONDITIONS APPLYING TO CONTINGENCY PLANNING**

1. The Licensee shall by October 31, 1995, submit to the Board for approval a Contingency Plan in accordance with the Board's "Guidelines for Contingency Planning, January 1987." The plan shall also include the conditions outlined in Part D, Item 1.
2. If not approved, the Plan referred to in Part F, Item 1 shall be revised and submitted to the Board for approval within thirty (30) days after receiving notification of the Board's decision.
3. 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 appropriate Contingency Plan;
  - b) advise the Inspector immediately via the 24 Hour Spill Reporting Line (403) 920-8130; and
  - c) submit to the 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. The Licensee shall by February 1, 1996 submit to the Board for approval an Abandonment and Restoration Plan in accordance with the Board's "Guidelines for Abandonment and Restoration Planning for Mines in the Northwest Territories, September 1990".
2. If not approved, the Licensee shall submit a revision of the Plan referred to in Part G, Item 1 to the Board for approval within sixty (60) days after receiving notification of the Board's decision.
3. The Licensee shall complete the restoration work within the time schedule specified in the Plan, or as subsequently revised and approved by the Board.
4. Notwithstanding the time schedule referred to in Part G, Item 3 the Licensee shall endeavour to carry out progressive restoration of areas which are abandoned prior to closure of operations.

5. Compliance with the Abandonment and Restoration Plan specified in this Licence shall not limit the legal liability of the Licensee, other than liability arising by operation of this Act.

NORTHWEST TERRITORIES WATER BOARD

Paula R. LaMond  
Witness

John Day  
Chairman

# NORTHWEST TERRITORIES WATER BOARD

LICENSEE: BHP MINERALS CANADA LTD.  
LICENCE NUMBER: N7L2-1652  
EFFECTIVE DATE OF LICENCE: AUGUST 1, 1995  
EFFECTIVE DATE OF  
SURVEILLANCE NETWORK PROGRAM: AUGUST 1, 1995

## SURVEILLANCE NETWORK PROGRAM

### A. Location of Sampling Stations

<u>Station Number</u>	<u>Description</u>
1652-1	Water Intake at Spyder Lake
1652-2	Minewater Discharge (if encountered)

### B. Sampling and Analysis Requirements

1. During periods of minewater discharge, effluent at Station Number 1652-2 shall be sampled once during the first week and monthly thereafter, and analyzed for the following parameters:

Total Suspended Solids	Total Ammonia
pH	Total Arsenic

2. During periods of minewater discharge, effluent at Station Number 1652-2 shall also be sampled once per month, and analyzed for a complete ICP metal scan.
3. 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 an Analyst.



4. All analysis shall be performed in a laboratory approved by an Analyst.
5. The Licensee shall, by October 31, 1995, submit to an Analyst for approval a quality assurance/quality control plan which addresses analysis of field blanks and certified reference material, and replicate sampling in order to assess accuracy, precision and field contamination.
6. The plan referred to in Part B, Item 5 shall be implemented as approved by an Analyst.

**C. Flow and Volume Measurement Requirements**

1. The monthly quantity of water pumped from Station Number 1652-1 shall be measured and recorded in cubic metres.
2. The monthly quantity of minewater pumped from Station Number 1652-2 shall be measured and recorded in cubic metres.

**D. 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 approved quality assurance plan.

NORTHWEST TERRITORIES WATER BOARD

Pamela R. LaMouel  
Witness

Edmund [Signature]  
Chairman