



Indian and Northern Affairs

Affaires indiennes et du Nord

## NORTHWEST TERRITORIES WATER BOARD

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

## HOMESTAKE MINERAL DEVELOPMENT COMPANY

(Licensee)

#1000 - 700 WEST PENDER STREET  
VANCOUVER, B.C.  
V6C 1G8

of

(Mailing address)

hereinafter called the Licensee, the right to alter, divert or otherwise use water subject to the restrictions and conditions contained in the Northern Inland Waters Act and Regulations made thereunder and subject to and in accordance with the conditions specified in this licence:

Licence Number N7L3-1603Water Management Area NORTHWEST TERRITORIES 07Location GEORGE LAKE, NORTHWEST TERRITORIESLATITUDE 65° 55' N. LONGITUDE 107° 27' W.Purpose WATER USE AND WASTE DISPOSALDescription FOR INDUSTRIAL USE IN EXPLORATION,  
DEVELOPMENT, MINING AND ASSOCIATED USESQuantity of Water Not to be Exceeded SEE LICENCE PART BRate of Use of Water Not to be Exceeded SEE LICENCE PART BEffective Date of Licence JULY 1, 1992Expiry Date of Licence DECEMBER 31, 1996

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

Northwest Territories Water Board

  
Witness

  
Chairman

Approved by

  
Minister of Indian Affairs  
and Northern Development

GENERAL CONDITIONSPART A1. Scope

This Licence entitles the Homestake Mineral Development Company to use water and dispose of waste for exploration, development, mining and associated uses at the George Lake property, Northwest Territories.

2. The Licensee shall have applied for and received a new Water Licence for mining and milling purposes before any ore bodies in the area are brought into production, other than for the mining of a bulk ore sample.

3. Definitions:

In this Licence: N7L3-1603

→ "Act" means the Northern Inland Waters Act; NWB

→ "Regulations" means Regulations proclaimed pursuant to Section 29 of the Northern Inland Waters Act; NWB

→ "Board" means the Northwest Territories Water Board established under Section 8(1) of the Northern Inland Waters Act; NWB

"Licensee" means the holder of this Licence;

"Controller" means the person appointed to the position of "Controller of Water Rights for the Northwest Territories" by the Northwest Territories Water Board;

→ "Inspector" means an Inspector designated by the Minister under Section 32(1) of the Northern Inland Waters Act; NWB.

"Waste" means waste as defined by Section 2(1) of the Northern Inland Waters Act;

"Average Concentration" means the running average of any four consecutive analytical results submitted to the Controller 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 waste rock materials produced as a result of mining operations.

4. The water use fee shall be paid annually in advance.

5. Prior to the use of water or deposit of waste for underground exploration, development, mining and associated uses, the Licensee shall have posted and shall maintain a Security Deposit in the amount of \$100,000.00 pursuant to Section 13(3) of the Act and Section 13 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.

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6. ~~The Licensee shall file a report with the Board, pursuant to Section 15(1) of the Regulations, not later than March 1st of the year following the calendar year reported which shall contain the following information:~~ *remove*
- a) the monthly and annual quantity of water in cubic metres pumped from George Lake;
  - b) the monthly and annual quantity in cubic metres of waste water discharged from all sources. Quantities reported shall be separated by source and discharge locations;
  - c) tabular summaries of all data generated under the "Surveillance Network Program";
  - d) a summary of exploration and development activities as they relate to water use and waste disposal;
  - e) a list of unauthorized discharges;
  - f) a detailed record of modifications and major maintenance work carried out on the water supply and the waste disposal system and all associated structures;
  - g) any approved revisions to the Contingency Plans;
  - h) any approved revisions to the Abandonment and Restoration Plan; and
  - i) any other details on water use or waste disposal requested by the Board by November 1st of the year being reported.
7. 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 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 Northern Inland 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. *stand*
8. 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.
9. The "Surveillance Network Program" and compliance dates specified in the Licence may be modified at the discretion of the Board.
10. The Licensee shall install meters or such devices or use such methods as approved by the ~~Controller~~ *remove to Inspector Board* for measuring the volumes of water used and wastes discharged. The meters and measuring devices or methods shall be operated and maintained to the satisfaction of the Inspector.
11. The Licensee shall within thirty (30) days of the use of water pursuant to this Licence, post and maintain the necessary signs to identify the stations of the "Surveillance Network Program" to the satisfaction of the Inspector. *HN*
12. Compliance with the terms and conditions of this Licence does not absolve the Licensee from responsibility for compliance with the requirements of other Federal or Territorial legislation.

CONDITIONS APPLYING TO WATER USEPART B

1. Prior to the use of any water for ~~mining~~ and underground development, the Licensee shall submit to the ~~Controller~~ *Board* for approval, a proposal with map(s) showing intake locations.
2. The monthly quantity of water to be withdrawn from George Lake for mining exploration, development and domestic camp uses shall not exceed 10,000 cubic metres.
3. The annual quantity of water to be withdrawn from George Lake for mining exploration, development and domestic camp uses shall not exceed 120,000 cubic metres.
4. The monthly quantity of minewater pumped from underground workings to surface ponds shall not exceed 6,800 cubic metres.
5. The annual quantity of minewater pumped from underground workings to surface ponds shall not exceed 81,600 cubic metres.
6. The Licensee shall minimize the use of fresh water from George Lake by reclaiming and recycling minewater for underground drilling and development purposes.

CONDITIONS APPLYING TO WASTE DISPOSALPART C

1. Prior to the use of water or deposit of waste for mining purposes, the Licensee shall submit to the Board for approval, a disposal plan which addresses the treatment of minewater and method of disposal. The plan shall include a site map to scale, identifying the ore and waste rock storage areas, the settling pond(s) and downstream receiving areas.
2. Wastes discharged by the Licensee shall meet the following effluent quality requirements:

PARAMETER	MAXIMUM AVERAGE CONCENTRATION	MAXIMUM CONCENTRATION OF ANY GRAB SAMPLE
Total Arsenic	0.5 mg/L	1.0 mg/L
Total Copper	0.3 mg/L	0.6 mg/L
Total Lead	0.2 mg/L	0.4 mg/L
Total Nickel	0.5 mg/L	1.0 mg/L
Total Zinc	0.5 mg/L	1.0 mg/L
Total Suspended Solids	25.0 mg/L	50.0 mg/L

The waste discharged shall have a pH between 6.0 and 9.5 and have no visible sheen of oil and grease.

3. Sewage is to be disposed of to the satisfaction of the Inspector.
4. Within sixty (60) days prior to the use of water or deposit of waste for mining purposes, the Licensee shall submit to the Controller for approval, a hydrologic water balance report for any basins or drainage water bodies which will or could receive waste discharges.

CONDITIONS APPLYING TO SPILL PREVENTION AND CONTINGENCY PLANNING

PART D

1. The Licensee shall, within thirty (30) days prior to the use of water pursuant to this Licence submit to the Board for approval, a Contingency Plan. This plan shall include but not be limited to the following:
  - a) a General Contingency Plan; and
  - b) a Spill Prevention and Contingency Plan.
2. If not accepted by the Board, the Contingency Plan referred to in Part D, Item 1, shall be revised as required and resubmitted within sixty (60) days of the date of non-acceptance.
3. The General Contingency Plan shall include but not be limited to the following:
  - a) action to be taken should wastes to be discharged not meet the Licence effluent quality requirements; and
  - b) action to be taken should an excess of minewater, beyond the capacity that can be treated as identified in the approved disposal plan in PART C, Item 1, be encountered.
4. The Spill Prevention and Contingency Plan shall describe in detail the following:
  - a) actions to be taken to prevent, terminate, contain, recover and dispose of any discharge of petroleum products or other hazardous materials, and contain and dispose of fluids and solids contaminated by petroleum products or other hazardous materials;
  - b) a description of any sensitive areas that may be affected by a spill and measures to protect these areas from contamination;
  - c) an onsite petroleum products inventory; and
  - d) an onsite emergency equipment inventory and location index.
5. The Contingency Plan shall be reviewed annually by the Licensee and modified as necessary to reflect changes in operation and technology. The proposed modifications shall be submitted to the Board for approval.
6. If, during the period of this Licence a spill occurs, the Licensee shall:
  - a) employ the Spill Prevention and Contingency Plan;
  - b) advise an 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.

CONDITIONS APPLYING TO MODIFICATIONSPART E

1. The Licensee may, without written consent from the Board, carry out modifications to the water supply and 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 thirty (30) days prior to beginning the modifications;
  - b) such modifications do not place the Licensee in contravention of either the Licence or the Act;
  - c) the Board has not, during the thirty (30) days following the notification of the proposed modifications, informed the Licensee that review of the proposal will require more than the 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 the written consent of the Board.
3. The Licensee shall provide as-built plans and drawings of the modifications referred to in this Licence within sixty (60) days of completion of the modifications. These plans and drawings shall be stamped by an engineer registered in the Northwest Territories, and shall be submitted to the Controller on material that will reproduce with the use of a standard copier. *Board*

CONDITIONS APPLYING TO ABANDONMENT AND RESTORATIONPART F

1. The Licensee shall, within ninety (90) prior to the use of water pursuant to this Licence, submit an Abandonment and Restoration Plan which shall take into consideration all areas referred to in Part F, Item 2, regarding prevention of long-term water pollution.
2. The Licensee shall address the following when completing or revising the Abandonment and Restoration Plan:
  - a) the waste treatment systems;
  - b) the waste rock disposal areas;
  - c) the ore storage areas;
  - d) any site(s) affected by spills;
  - e) the natural runoff waters from the development site(s);
  - f) the fuel storage areas; and
  - g) any facilities or areas which may have been affected by the development, such that potential pollution problems exist.

3. The Licensee shall revise the Plan referred to in Part F, Item 1, if not accepted by the Board. The revised Plan shall be received in the office of the Board within sixty (60) days after notification.
4. The Licensee shall complete the restoration work as approved by the Board, within the time schedule specified in the Plan or as subsequently revised and approved by the Board.
5. Notwithstanding the time schedules referred to in Part F, Item 4, the Licensee shall, for all matters referred to in Part F, Item 2, which are abandoned prior to closure of operations, immediately carry out the Abandonment and Restoration Plan as accepted by the Board, unless approval for other restoration schedules is received in writing from the Board.
6. Compliance with the Abandonment and Restoration Plan specified in this Licence will not limit the legal liability of the Licensee, other than liability arising by operation of this Act.

## NORTHWEST TERRITORIES WATER BOARD

  
Witness

  
Chairman

**NORTHWEST TERRITORIES WATER BOARD**

<b>LICENSEE:</b>	<b>HOMESTAKE MINERAL DEVELOPMENT COMPANY</b>
<b>LICENCE NUMBER:</b>	<b>N7L3-1603</b>
<b>EFFECTIVE DATE OF LICENCE:</b>	<b>JULY 1, 1992</b>
<b>EFFECTIVE DATE OF SURVEILLANCE NETWORK PROGRAM:</b>	<b>JULY 1, 1992</b>

**SURVEILLANCE NETWORK PROGRAM****A. Location of Surveillance Stations**

<u>Station Number</u>	<u>Description</u>
1603-1	Fresh water intake facility on George Lake.
1603-2	Minewater effluent to be discharged from the approved settling pond as defined in PART C, Item 1 of the Licence.
1603-3	Runoff water drainage from the ore storage area.
1603-4	Runoff water from the waste rock storage areas.

**B. Sampling and Analysis Requirements**

1. Water at Station Number 1603-1 shall be sampled quarterly during periods of operation and analyzed for the following parameters:

Total Arsenic	Total Zinc
Total Nickel	Total Copper
Total Lead	Ammonia Nitrogen
Suspended Solids	pH

2. Water at Station Number 1603-2 shall be sampled weekly during each period of flow and analyzed for the following parameters:

Total Arsenic	Total Zinc
Total Nickel	Total Copper
Total Lead	Ammonia Nitrogen
Suspended Solids	pH



3. Water at Station Numbers 1603-3 and 1603-4 shall be sampled once every week during periods of flow and analyzed for the following parameters:

Total Arsenic	Total Copper
Total Lead	Total Nickel
Total Zinc	Total Suspended Solids
pH	

4. A quality assurance plan which addresses sampling, preservation and analysis, including the use of field blanks, certified reference material and replicate sampling in order to assess accuracy, precision and field contamination, shall be submitted to the Controller for approval within thirty (30) days of the use of water pursuant to this Licence.
5. The Plan referred to in Part B, Item 4 shall be implemented as approved by the Controller.

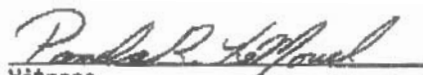
C. Flow Measurement Requirements


1. The monthly amount of water pumped from George Lake at Station Number 1603-1 shall be recorded in cubic metres.
2. The monthly amount of minewater discharged from Station Number 1603-2 shall be recorded in cubic metres.

D. Reports

1. The Licensee shall, within thirty (30) days following the month reported, submit to the Controller all the data and information required in the "Surveillance Network Program" including the results of the approved quality assurance plan.

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