

**Mackenzie Valley Land and Water Board**

7th Floor - 4910 50th Avenue • P.O. Box 2130
YELLOWKNIFE, NT X1A 2P6
Phone (867) 669-0506 • FAX (867) 873-6610

January 17, 2002

File: MV2000L1-0014

Ms. Shirley Maaskant
Paramount Resources Ltd.
4700 Bankers Hall
888 3rd Street SW
CALGARY AB T2P 5C5

Dear Ms. Maaskant:

ISSUANCE OF A TYPE "B" WATER LICENSE

Attached is Water Licence MV2000L1-0014 granted by the Mackenzie Valley Land and Water Board (MVLWB) in accordance with the *Northwest Territories Waters Act*. A copy of this Licence has been filed in the Public Registry at the office of the MVLWB. The Board approved Water Licence MV2000L1-0014 for a period of five (5) years commencing January 18, 2002 and expiring January 17, 2002.

Please read all conditions carefully and note that as per Water Licence condition Part B, Item 2, a security deposit in the amount of \$50, 000 shall be posted with the Minister and copied to the Board prior to the start of the operation pursuant to Section 17 of the Northwest Territories Waters Act.

Attached are general procedures for the administration of licenses in the Northwest Territories. I request that you review these and address any questions to the Boards office.

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

The full cooperation of Paramount Resources Ltd. is anticipated and appreciated.

Yours sincerely,

A handwritten signature in cursive script that reads "Melody J. McLeod".

for Melody J. McLeod
Chair

Attachments

Copy to: Ed Hornby, District Manager, South Mackenzie District, DIAND, Yellowknife
David Milburn, Water Resources Division, DIAND
Janpcter Lennie-Misgeld, Regulatory Officer, MVLWB



**MACKENZIE VALLEY LAND AND WATER BOARD
WATER LICENSE**

Pursuant to the *Mackenzie Valley Resource Management Act* and Regulations the Mackenzie Valley Water Board, hereinafter referred to as the Board, hereby grants to:

Paramount Resources Ltd.
(Licensee)

of 4700 Bankers Hall West,
888 3rd Street SW
CALGARY AB T2P 5C5
(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 License.

License Number: MV2000L1-0014

License Type: B

Water Management Area: NORTHWEST TERRITORIES 03

Location: Grid Area;
60° 00' to 60° 20' N;
117° 15' to 117° 50' W

Purpose: TO USE WATER AND DISPOSE OF WASTE AND
ASSOCIATED USES

Description: PIPELINE AND GATHERING SYSTEM

Quantity of water not to be exceeded: 300 CUBIC METRES DAILY

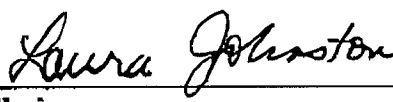
Effective Date of License: January 18, 2002

Expiry Date of License: January 17, 2007

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

MACKENZIE VALLEY LAND AND WATER BOARD


Witness


A / Chair

PART A: SCOPE AND DEFINITIONS

1. Scope

- (a) This License entitles Paramount Resources Ltd. to use water and dispose of waste for industrial undertakings in oil and gas exploration and development, oil and gas production and associated uses by Paramount Resources Ltd. located at Latitude 60° 00' to 60° 20' N and Longitude 117° 15' to 117° 50' W, Northwest Territories.
- (b) This License 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 License 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 License does not absolve the Licensee from responsibility for compliance with the requirements of all applicable Federal, Territorial and Municipal legislation.

2. Definitions

In this License: **MV2000L1-0014**

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

"Artesian Aquifer" means a water-bearing rock stratum, which when encountered during drilling operations, produces a pressurized flow of groundwater that reaches an elevation above the water table or above the ground surface;

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

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

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

Water License MV2000L1-0014

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“Board” means the Mackenzie Valley Land and Water Board established under Part 4 of the *Mackenzie Valley Resource Management 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 License:

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

“Sewage” means all toilet wastes and greywater;

“Waste Disposal Facilities” mean all facilities designated for the disposal of Waste.

“Permeability” means the capacity to transmit water through a medium;

“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.

“Waters” means any 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 March 31st of the year following the calendar year reported which shall contain the following information:
 - a) the total quantities in cubic meters of fresh water obtained from all sources;
 - b) the total quantities in cubic meters of each and all waste discharged;
 - c) a summary of any modifications carried out on the Water Supply and Waste Disposal Facilities, including all associated structures;
 - d) a list of any spills and unauthorized discharges;
 - e) any other details on water use or waste disposal requested by the Board at least 45 days before the annual report is due; and
 - f) any details of work completed, including quantities and sources of material removed from or placed in or around the watercourse bed for construction, and any restoration activities carried out.
2. Prior to the use of water for industrial undertakings or the disposal of waste, the Licensee shall have posted and shall maintain a security deposit in the amount of \$50, 000 pursuant to Section 17(1) of the *Act* and Section 12 of the Regulations. The security deposit shall be maintained until such time as it is fully or in part refunded by the Minister pursuant to Section 17 of the *Act*. This clause shall survive the expiry of this License or renewals thereof.
3. 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.
4. The Licensee shall ensure a copy of this License is maintained at the site of operation at all times.

PART C: CONDITIONS APPLYING TO WATER USE

1. The Licensee shall obtain all water for this operation from water sources described in the project description or as otherwise approved by the Board.

2. The daily quantity of water used for all purposes shall not exceed 300 cubic meters.
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 construct and maintain sump(s) to the satisfaction of an Inspector.
2. All sewage wastes shall be disposed of as proposed in the accepted application.
3. 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.
4. If during operations, an uncontrolled flow of liquids at surface is encountered, including that produced from an Artesian Aquifer, the Licensee shall notify an Inspector immediately. A sample of not less than ten (10) litres shall be collected from the flowing source at the point of discharge from the well. Five (5) litres shall be made available to an Inspector for analysis, and the Licensee shall have the remaining five (5) litres analyzed as required by an Inspector.
5. In the event where decanting waste or water from the Sewage Disposal Facility or from a sump is required by an unanticipated event, the Licensee shall:
 - a) advise an Inspector;
 - b) obtain a representative sample from the Sewage Disposal Facility or sump using the best methods available and describe in detail the prevailing conditions and how the sample was obtained. This sample shall contain a minimum of five (5) litres;
 - c) submit the results of the sampling and analyses to the Inspector at least seven (7) days prior to the requested date of commencing decant, or in the case of an unanticipated event, as soon as possible; and
 - d) indicate in writing to an Inspector;
 - the method of decant
 - the direction of flow
 - the location of fresh water bodies where the decanted effluent is expected to go; and
 - any treatment that will be applied to the Sump

PART E: CONDITIONS APPLYING TO MODIFICATIONS

1. The Licensee may, without written approval 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 License and the following requirements are met:
 - 1) the Licensee has notified the Board in writing of such proposed modifications at least thirty (30) days prior to beginning the modifications;
 - 2) such modifications do not place the Licensee in contravention of either the License or the *Act*;
 - 3) 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
 - 4) 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 may be carried out only with written approval from the Board.
3. The Licensee shall provide to the Board as-built plans and drawings of the modifications referred to in this License within ninety (90) days of completion of the modifications.

PART F: CONDITIONS APPLYING TO WATERCOURSE CROSSINGS

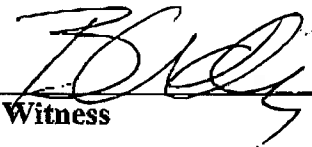
1. The Licensee shall ensure that only clean snow is used when constructing snowfills for vehicle and equipment access on all watercourse crossings and that no debris is placed in the watercourse channel.
2. Ice and snow crossings should not impede the flow of any watercourse. These crossings shall be notched or removed before spring break-up to facilitate natural flow.
3. Any materials placed below the normal high water mark of any watercourse used in the construction of winter crossings (including log bundles, matting or culverts), should be free of any contaminants, debris or fine materials and shall be removed before spring break-up.
4. All areas affected by construction or removal activities shall be stabilized and landscaped to pre-construction profiles or as approved by an Inspector.

5. The Licensee shall ensure that any watercourse bank that is open cut or modified be re-contoured and stabilized post-construction and that all substrate is returned to pre-construction state with un-contaminated materials.
6. The licensee shall construct surface erosion controls such as diversion berms and berm breaks to maintain the integrity of the trenchline and mitigate the potential for erosion from surface groundwater flow along the right-of-way when steep slopes are encountered and use geosynthetic textile products or other appropriate controls to prevent sediment laden run-off from entering any watercourse.
7. When flowing or open-water is encountered the licensee shall use an isolated crossing technique such as dam and pump.
8. The Licensee shall return excavated or removed watercourse bed material (boulders and cobble) to restore the watercourse armouring characteristics without altering habitat. The banks shall be restored to a pre-disturbance profile, which may include installing rock rip-rap or other stabilization measures (such as organic cribbing or bundled logs) to protect the full channel widths that are likely to be wetted during freshet.
9. The Licensee shall ensure that any fuels, chemicals, or wastes associated with this undertaking do not enter any watercourse. All fuel is to be stored at a location that is a minimum of one hundred (100) meters from the ordinary high water mark of any water body and shall be sufficiently bermed or otherwise contained to the satisfaction of an Inspector.
10. The Licensee shall ensure that the watercourse flow is maintained at all times during and after construction, and that the reconstructed watercourse channel is constructed and maintained to the pre-construction profiles (width and depth) of the existing watercourse bed, to the extent possible.
11. The Licensee shall not deposit or permit the deposit of any vegetation, soils, or other materials cleared from the site in any water body. All materials shall be disposed of above the ordinary high water mark of the watercourse, and to the satisfaction of an Inspector.
12. The Licensee shall ensure that downstream water flow is maintained to pre in-stream work water levels for all isolated pipeline crossings.
13. The Permittee shall complete all pipeline crossings where flowing water is encountered and an isolated crossing is used as quickly as possible using methods to prevent significant disruption of fish movements.

PART G: CONDITIONS APPLYING TO CONTINGENCY PLANNING

1. If during the period of this License, an unauthorized discharge of waste occurs, or if such a discharge is foreseeable, the Licensee shall:
 - 1) advise an Inspector immediately via the 24 Hour NWT Spill Report Line (867) 920-8130; and
 - 2) submit to an Inspector, a detailed report on each occurrence not later than thirty (30) days after initially reporting the event.
2. The Licensee shall maintain a copy of the accepted contingency plan on site in a readily available location to the satisfaction of an Inspector

MACKENZIE VALLEY LAND AND WATER BOARD



Witness



A/ Chair