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**NUNAVUT WATER BOARD**  
**NUNAVUT IMALIRIYIN**  
**KATIMAYINGI**

## WATER LICENCE APPLICATION FORM

Nunavut Water  
Board

MAR 01 2005

Public Registry

Application for: (check one)

☒ New    ☐ Amendment    ☐ Renewal    ☐ Assignment

**LICENCE NO:**  
(for NWB use only)

**1. NAME AND MAILING ADDRESS OF  
APPLICANT/LICENSEE**

Phu Van Bui, B.Sc., G.I.T.  
  
Pacifica Resources Limited  
701-475 Howe Street  
Vancouver, British Columbia, Canada,  
V6C 2B3  
  
Phone: 1-604-682-5474 Ext 239  
Fax: 1-604-682-5404  
e-mail: pvbui@pacificaresources.com

**2. ADDRESS OF CORPORATE  
OFFICE IN CANADA (if applicable)**

Phone: \_\_\_\_\_  
Fax: \_\_\_\_\_  
e-mail: \_\_\_\_\_

INTERNAL

PC	clp
MA	
FO	
LA	
BS	
ST	
TA1	
TA2	
RC	
ED	
CH	
BRD	
EXT.	

Please see Appendix A for list of Definitions.

**3.0 LOCATION OF UNDERTAKING** (describe and attach a topographical map, indicating the main components of the Undertaking).

3.1 The Yava Property is approximately 450 km northeast of Yellowknife, in the Mackenzie Mining District, Territory of Nunavut, Canada. It is between the Hackett and Back Rivers, and centered at 65°36'N and 107°56'W within map sheet NTS 76/G-12 (Figure 1). The Property consists of one mining lease of 3,162 acres and four mineral claims totaling 12,554 acres. It is the intent of Pacifica Resources Ltd. to carry out geological and geophysical work covering the area bound by the said mining lease and four mineral claims.

3.2 Latitude: 65°36'N Longitude: 107°56'W  
NTS Map No. 76/G-12, 76/F-9, 76/F-16 Scale 1:100 000 (Figure 02)

**4.0 DESCRIPTION OF UNDERTAKING** (attach plans and drawings)

4.1 The Yava Property is currently in an early stage of exploration. Pacifica Resources Ltd. ("PACIFICA") recently acquired the Long Lake, Turnip Lake, Raptor Lake and MZ West Zone claims ("Yava Group of

Claims") in December 2004. These new areas will be the focus of the 2005 exploration program.

Horizontal-Loop Electromagnetic (HLEM) &  
Ground Magnetic (MAG) Geophysical Surveys:

Timeline: June 15-August 26, 2005 (70 days).

Location: Long Lake, Turnip Lake, Raptor Lake, & MZ West Claims.

Crews: Two crews of six (4 geophysicists and 8 geophysical assistants) totaling twelve (12).

Purpose: In 1974, Brascan Resources Limited completed a full airborne electromagnetic (AEM) survey and ground magnetic survey in the areas now covering the Yava Group of Claims. The purpose of the 2005 exploration program is to survey the new claim areas using modern techniques of HLEM and ground MAG to verify the 1974 AEM data. Once geophysical data is successfully collected and processed by third-party analysts, a geology crew can then enter the area and verify the target areas with mapping and prospecting.

Activity: An extensive HLEM & MAG grid totaling approximately 420 line-kilometers will be added to the existing HLEM grid previously setup on the Yava Main Zone (Figure 02). These grids will be 100-meters spaced with 25-meter stations marked by wooden pickets. Daily use of helicopter will be required to set out crews in the morning and to bring them back to base camp before dark. The proposed 2005 HLEM grid is built upon the existing base-line installed by Aurora Geosciences Limited in 2004. This base-line originates at coordinate 365340 mE, 7278350 mN, strikes 330 degrees and is common to the UTEM & HLEM surveys completed on the Yava Main Zone, Yava Main Zone North, and the South-East Zone. Crews will begin at the northernmost regions of the proposed grid and work southward towards the Yava Mining Lease No.3175.

Mapping and Prospecting:

Timeline: July 4-August 17, 2005 (50 days).

Location: Long Lake, Turnip Lake, Raptor Lake, & MZ West Claims.

Crews: Four crews of two (one geologist and one field assistant per crew) totaling eight (8).

Purpose: To verify geophysical targets identified by 2005 HLEM and MAG surveys.

Activity: Detailed 1:2000, 1:5000, and 1:10000 scale geological mapping and prospecting over the same area as the geophysical surveys. Daily use of helicopter will be required to set out crews in the morning and to bring them back to base camp before dark. Rock specimens will be collected and sent off site for analysis.

Diamond Drilling:

Timeline: June 27-September 12, 2004.

Location: Yava Mining Lease No. 3175 only.

Crews: One crew of four (two drillers and two driller helpers) and camp support.

Purpose: In 1976, Brascan Resources Ltd., operators of the exploration program in 1974 and 1975, reported a resource of 13 million tons of 1.03% Cu, 1.60% Pb, 4.96% Zn, 3.42 oz/t Ag, and 0.008 oz/t Au to a depth of 300 feet (Salaken, March 15, 1976). Estimation of this resource predates National Instrument 43-101. By definitions of mineral resources and mineral reserves incorporated in Part 1.4 of NI 43-101, Brascan's 1976 estimate is an inferred mineral resource, that is inferred from geological evidence, but not confirmed because of limited data from locations such as outcrops, trenches, pits, and widely-spaced, shallow, drill holes.

Pacifica intends to revisit these drill targets to verify the drilling data as well as to establish new drill targets that may in later years develop into more technical and systematic drilling of the Yava Main Zone and other areas of interest in the manner required by National Instrument 43-101.

Activity: Pending 2004 and 2005 geological and geophysical results, a 2000-2500m diamond drill program will be carried out on the Yava Mining Lease No. 3175. Due to lack of geophysical and geological data, a descriptive drilling target plan cannot be completed at this time. A contingent budgetary proposal of 2500m is in place to follow up on success.

**5.0 TYPE OF PRIMARY UNDERTAKING** (A supplementary questionnaire must be submitted with the application for undertakings listed in "**bold**").

5.1 Please refer to Appendix C.

☒ **Miscellaneous** (includes exploration/drilling) describe: **geological mapping, geophysical surveying, and diamond drilling.**

See Schedule II of Northwest Territories Waters Regulations for Description of Undertakings

## 6.0 WATER USE

☒ **To obtain water**

**7.0 QUANTITY OF WATER INVOLVED** (cubic metres per day including both quantity to be used and quality to be returned to source)

7.1

Undertaking	M <sup>3</sup> per day	Specific Use and Application	Quality to be returned
Potential Surface Exploration	46.08	Diamond drilling for surface exploration (Estimated Use: 12000 Gallons per day or 46.08 m <sup>3</sup> per day).	None to be returned directly to source.
Base Camp	13.62	Camp use (washing, bathing, waste removal (toilet), culinary, portable and fire suppression). 30 peoples: 454 liters person per day (120 US gallons per person per day): Source of water: Retort Lake.	None to be returned directly to source.
Total	59.7		

7.2 Comments: The above water consumption estimation is based on an ideal exploration program and should be taken as a upper limit value with respects to the undertakings mentioned. It is fair to state that water consumption may not exceed 13.6 cubic meters per day in the event the exploration program is scaled to a 15 man exploration program.

8. WASTE (for each type of waste describe: composition, quantity (cubic metres per day), methods of treatment and disposal, etc.)

8.1 Sewage  
8.2 Solid Waste  
8.3 Hazardous  
8.4 Bulky Items/Scrap Metal

8.5 Waste oil  
8.6 Greywater  
8.7 Sludge  
8.8 Other: Drill cuttings, drill water, and drill mud.

Type of Waste	Composition	Quantity (m <sup>3</sup> /day)	Method of treatment	Method of disposal
8.1 Sewage	Toilet wastes (all human excreta and associated products, but does not include greywater) and Greywater (all liquid wastes from showers, baths, sinks, kitchens and domestic)	Unknown	All outhouses will be treated with lime on a daily basis.  Please see 8.6 for "greywater".	Upon completion of the exploration season, all outhouses will be treated with lime and back-filled.  Please see 8.6 for "greywater".
8.2 Solid Waste	All solid wastes from kitchens and domestic.	Unknown	All solid waste that is combustible will be incinerated.	All incombustible waste will be backhauled to Yellowknife and disposed of in an approved waste disposal site.

8.3 Hazardous	To be determined.	Unknown	N/A.	All hazardous wastes generated through the course of the operation will be backhauled to Yellowknife and disposed of in an approved waste disposal site.
8.4 Bulky Items/Scrap Metal	Scrap metal, discarded machinery and parts, and other bulky material	Unknown	Scrap metal and other bulky wastes will be stored accordingly.	Bulky items, including scrap metal waste, will be backhauled to Yellowknife, and disposed of in an approved waste disposal site.
8.5 Waste oil	Any waste oil from engines and mechanical parts.	Unknown	N/A	Waste oil and non-combustible waste generated through the course of the operation will be backhauled to Yellowknife, and disposed of in an approved waste disposal site.
8.6 Greywater	All liquid wastes from showers, baths, sinks, kitchens and domestic	Unknown	Sump(s) will be constructed to contain all greywater discharged.	All greywater will be contained in a sump located thirty (30) meters or more from the ordinary high water mark of all water bodies. Special care will be taken to ensure greywater will not directly flow into adjacent water bodies.
8.7 Sludge	Produced from drill	Unknown	N/A	Sludge will be disposed of at least thirty (30) meters

				from the high water mark of any water body or watercourse at a site where direct flow into a water body is not possible.
8.8 Other	Drill cuttings, drill water, and drill mud	Unknown	<p>All drill cuttings and sludge will be removed from the ice surface using collection tanks. Furthermore, casing will be reamed into solid bedrock to mitigate cuttings from escaping.</p> <p>Mud will not be used in connection with holes drilled through lake ice.</p> <p>The release of total suspended solids will be in compliance with the Guidelines for Total Suspended Solids, Canadian Council of Ministers of the Environment's (CCME) Canadian Water Quality Guidelines.</p>	All drill cuttings and drill waters that cannot be re-circulated will be disposed of and contained on land in a sump located thirty (30) metres from the high water mark of any adjacent water body.

**9. PERSONS OR PROPERTIES AFFECTED BY THIS UNDERTAKING** (give name, mailing address and location; attach if necessary)

## Land Use Permit

DIAND Yes ☒ No If no, date expected: In Progress

Regional Inuit Association \_\_\_\_\_ Yes ☒ No If no, date expected: **In Progress**

Commissioner \_\_\_\_\_ Yes ☒ No ☐ If no, date expected: **N/A**

## 10. PREDICTED ENVIRONMENTAL IMPACTS OF UNDERTAKING AND PROPOSED MITIGATION MEASURES (direct, indirect, cumulative impacts, etc.)

1C.1 Environmental impacts resulting from geological mapping and prospecting will be very insignificant considering the crews will only be walking through the region and be collecting rock samples. Disturbance to fauna due to helicopters will also be insignificant and can be mitigated (i.e. flying well above ground fauna and ceasing all helicopter activity in the event wildlife herds migrate through the area.

10.2 Environmental impacts resulting from geophysical surveying will also be insignificant. Only wooden pickets will be used to mark grid stations. All wire-line will be removed from site upon completion of the program.

10.3 Although drilling activities may temporarily disturb natural vegetation in a very local space (i.e. setting the drill down on top soil, water discharge overland resulting from drilling activities, etc.), no significant impacts on traditional water use areas or on local fish and wildlife habitats is foreseen based on the exploration plan set out by Pacifica Resources Ltd. on the Yava Property.

10.4 Michael Setterington, Department of Environment in Cambridge Bay, ([msetterington@gov.nu.ca](mailto:msetterington@gov.nu.ca), 867-857-2828) is currently compiling digital maps of major wildlife migratory patterns for the periods of June to October for the project area on behalf of Pacifica. This data is expected to be avail to the Company by March 15, 2005.

10.5 NIRB Screening ✓No If no, date expected: **In Progress**

## 11.0 INUIT WATER RIGHTS

Will the project or activity substantially affect the quality, quantity, or flow of water flowing through Inuit Owned Lands and the rights of Inuit under Article 20 of the Nunavut Land Claims Agreement?

11.1 No.

## 11.2 (Continued)

If yes, has the applicant entered into an agreement with the Designated Inuit organization to pay compensation for any loss or damage that may be caused by the alteration. If no compensation agreement has been made, how will compensation be determined?

## 12.0 CONTRACTORS AND SUB-CONTRACTORS (name, address and functions)

Note: The following is a list of companies that have been contacted by Pacifica Resources Ltd. as potential contractors. Contractors may change depending on the needs of the Company.

12.1 Expediting Contractor	Discovery Mining Services P.O. Box 2248, Yellowknife, NT Canada X1A 2P7
12.2 Geophysics Contractor	Aurora Geosciences Ltd. 3502 Racine Road Yellowknife, NT X1A 3J2
12.3 Diamond Drilling Contractor	Major Drilling Group International Inc. PO Box 1377, 337 Old Airport Road Yellowknife, NT Canada, X1A 2P1
12.4 Helicopter Contractor	Great Slave Helicopters Site # 2 Box 8 R.R. # 1 St. Albert, Alberta T8N 1M8

### 13.0 STUDIES UNDERTAKEN TO DATE (list and attach copies of studies, reports, research, etc.)

13.1 N/A

### 14.0 THE FOLLOWING DOCUMENTS MUST BE INCLUDED WITH THE APPLICATION FOR THE REGULATORY PROCESS TO BEGIN

14.1 Supplementary Questionnaire (where applicable: see section 5) ☒ Yes

Please see Appendix C.

14.2 Inuktitut/English Summary of Project ☒ Yes ☐ No

Please see Appendix B for summary of project in English and Inuktitut.

14.3 Application fee \$30.00 (Payee Receiver General for Canada) ☒ Yes

14.4 Water Use fee (see Section 9 of the NWT Waters Regulations; Payee Receiver General for Canada)

☒ Yes ☐ No If no, date expected \_\_\_\_\_

### 15.0 PROPOSED TIME SCHEDULE

15.1 ☒ Multi Year

Start Date: June 01, 2005

Completion Date: June 01, 2007



Phu Van Bui  
Name (Print)

Geologist  
Title (Print)

  
Signature

Feb. 22, 2005  
Date

**For Nunavut Water Board use only**

**APPLICATION FEE**      Amount: \$ \_\_\_\_\_      Pay ID No.: \_\_\_\_\_

**WATER USE DEPOSIT**      Amount: \$ \_\_\_\_\_      Pay ID No.: \_\_\_\_\_