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NUNAVUT WATER BOARD  
NUNAVUT IMALIRIYIN KATIMAYINGI  
OFFICE DES EAUX DU NUNAVUT

## EXPLORATION/ REMOTE CAMP SUPPLEMENTARY QUESTIONNAIRE

**Applicant: Canada-Nunavut Geoscience Office    Licence No:** \_\_\_\_\_  
(For NWB Use Only)

### ADMINISTRATIVE INFORMATION

1. Environment Manager: David Mate Tel: 867-975-4412 Fax: 867-979-0708 E-mail: dmate@nrcan.gc.ca
2. Project Manager: David Mate Tel: 867-975-4412 Fax: 867-979-0708 E-mail: dmate@nrcan.gc.ca
3. Does the applicant hold the necessary property rights? Not at this time, permit applications have been made to QIA and AANDC
4. Is the applicant an 'operator' for another company (i.e., the holder of the property rights)? If so, please provide letter of authorization. No
5. Duration of the Project  
☐ One year or less      Start and completion dates: \_\_\_\_\_  
☒ Multi Year: Summers of 2012 and 2013

If Multi-Year indicate proposed schedule of on site activities  
Start: around June 20<sup>th</sup>      Completion: around August 6<sup>th</sup>

### CAMP CLASSIFICATION

6. Type of Camp  
☐ Mobile (self-propelled)  
☒ Temporary  
☐ Seasonally Occupied: \_\_\_\_\_  
☐ Permanent  
☐ Other: \_\_\_\_\_
7. What is the design, maximum and expected average population of the camp? It will be a low-impact tent basecamp for a maximum of 25 peoples and an average of 22.
8. Provide history of the site if it has been used in the past.

To our knowledge, the 2012 South camp site has only been used by Peregrine for establishing a 6 drums fuel cache and the 2013 North camp site has never been used.

## CAMP LOCATION

9. Please describe proposed camp location in relation to biogeographical and geomorphological features, and water bodies.

The proposed campsites are located on glaciofluvial terraces overlooking unnamed lakes (see maps 2 and 3). South Camp is located southeast of Iqaluit (~135 km) while North Camp is located northeast of Iqaluit (~95 km).

10. How was the location of the camp selected? Was the site previously used? Was assistance from the Regional Inuit Association Land Manager sought? Include maps and/or aerial photographs. Locations of the proposed camps have been selected by CNGO using aerial photos and by visiting them in August 2011. The sites were chosen because of their proximity to water, the possibility of landing a twin Otter on tundra wheels and their general location in the study area. Alternative sites, with similar attributes, are quite scarce in the study area.

11. Is the camp or any aspect of the project located on:

<input checked="" type="checkbox"/> Crown Lands	Permit Number (s)/Expiry Date: Application have been made in Dec 2011
<input type="checkbox"/> Commissioners Lands	Permit Number (s)/Expiry Date: _____
<input checked="" type="checkbox"/> Inuit Owned Lands	Permit Number (s)/Expiry Date: Application have been made in Dec 2011

12. Closest Communities (direction and distance in km):

South Camp is located southeast of Iqaluit (~135 km) and south of Pangnirtung (~322 km) while North Camp is located northeast of Iqaluit (~95 km) and southwest of Pangnirtung (~202 km).

13. Has the proponent notified and consulted the nearby communities and potentially interested parties about the proposed work?

QIA, the Hamlet of Pangnirtung personnel and the City of Iqaluit personnel have been consulted in October and November 2011. Concerns about impact on caribou have been raised. More meetings with Iqaluit HTA, Hamlet of Pangnirtung and Pangnirtung HTA are planned in February and March 2012.

14. Will the project have impacts on traditional water use areas used by the nearby communities?  
Will the project have impacts on local fish and wildlife habitats?

The proposed project will have no noticeable impacts on traditional water use and local fish and wildlife habitats.

## PURPOSE OF THE CAMP

15. ☐ Mining (includes exploration drilling)  
☐ Tourism (hunting, fishing, wildlife observation, adventure/expedition, etc.)  
(Omit questions # 16 to 21)  
☒ Other \_Geoscience activities\_

16. Activities (check all applicable)

- ☐ Preliminary site visit  
☐ Prospecting  
☒ Geological mapping  
☐ Geophysical survey  
☐ Diamond drilling  
☐ Reverse circulation drilling  
☐ Evaluation Drilling/Bulk Sampling (also complete separate questionnaire)  
☐ Other: \_\_\_\_\_

17. Type of deposit (exploration focus):

- ☐ Lead Zinc  
☐ Diamond  
☐ Gold  
☐ Uranium  
☐ Other: \_\_\_\_\_

**DRILLING INFORMATION**

NO drilling

18. Drilling Activities

- ☐ Land Based drilling  
☐ Drilling on ice

19. Describe what will be done with drill cuttings?

20. Describe what will be done with drill water?

21. List the brand names and constituents of the drill additives to be used? Includes MSDS sheets and provide confirmation that the additives are non-toxic and biodegradable.

22. Will any core testing be done on site? Describe.

## SPILL CONTINGENCY PLANNING

23. The proponent is required to have a site specific Spill Contingency Plan prepared and submitted with the application. This Plan should be prepared in accordance with the *NWT Environmental Protection Act, Spill Contingency Planning and Reporting Regulations, July 22, 1998* and *A Guide to the Spill Contingency Planning and Reporting Regulations, June 2002*. Please include for review.

See other file.

24. How many spill kits will be on site and where will they be located?

Two spill kits will be on site, one located near the fuel cache and helicopters refueling station and the other one located near the diesel generator.

25. Please describe the types, quantities, and method of storage of fuel and chemicals on site, and provide MSDS sheets.

A fuel cache will be established at the camp which will store no more than 220 drums of aviation fuel, 3 drums of diesel and 1 drum of gasoline. The fuel will be stored in a self-supporting insta-berm. The base camp fuel cache will be inspected daily. About 10 propane tanks (100 pounds) will be on site to be used for fridges, stoves and water heaters. Propane tanks not in use will be stored upright near the fuel cache.

## WATER SUPPLY AND TREATMENT

26. Describe the location of water sources.

Water will be pumped from a local water source beside the camp (nearby stream or lake) once or twice daily and stored in a 1000 L plastic container.

27. Estimated water use (in cubic metres/day):

☒ Domestic Use: 0.5 to 1 m<sup>3</sup>/day Water Source: nearby stream or lake  
☐ Drilling: \_\_\_\_\_ Water Source: \_\_\_\_\_  
☐ Other: \_\_\_\_\_ Water Source: \_\_\_\_\_

28. Describe water intake for camp operations? Is the water intake equipped with a mesh screen to prevent entrapment of fish? (see *DFO 1995, Freshwater Intake End-of-Pipe Fish Screen Guideline*) Describe:

We will use a gas pump (88 GPM) equipped with a mesh metal screen.

29. Will drinking water quality be monitored? What parameters will be analyzed and at what frequency?

Drinking water quality will not be monitored.

30. Will drinking water be treated? How?

Drinking water quality will not be treated.

31. Will water be stored on site?

Water will be stored in a 1000 L plastic container.

## **WASTE TREATMENT AND DISPOSAL**

32. Describe the characteristics, quantities, treatment and disposal methods for:

**✕ Camp Sewage (blackwater)**

The quantity of sewage for a maximum of 25 people in camp at any one time is estimated around 100 L per day ( $0.1 \text{ m}^3/\text{day}$ ). Holes will be dug in the ground (gravel outwash) at least 50m from the nearest water source and downstream from the main camp. Tents and wooden structures will be used as toilet facilities and the holes will be filled as necessary.

**✕ Camp Greywater**

Greywater will be produced from washing dishes, showering and washing clothes by hand. The quantity of greywater for a maximum of 25 people in camp at any one time is estimated around 400 to 500 L per day ( $0.4$  to  $0.5 \text{ m}^3/\text{day}$ ). Holes will be dug in the gravel outwash plain next to the kitchen and shower tents, at least 35m from the nearest water source, and greywater will be poured into them. These holes will be filled in as necessary.

**✕ Solid Waste**

Combustible waste will be incinerated in empty metal fuel drums equipped with a portable industry standard incinerator and the ashes will be cooled and buried. Non-combustible waste will be shipped out of the camp and disposed of at the City of Iqaluit municipal waste facility. All local authorizing organizations will be consulted prior to the field work to ensure the municipal waste site can accommodate additional refuse.

☐ Bulky Items/Scrap Metal

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☐ Waste Oil/Hazardous Waste

**✕ Empty Barrels/Fuel Drums**

We will consult the local community to determine the best method of disposing the empty fuel drums. At minimum, they will be removed from the camp site and left with the community. If they are not needed by the community we will transport them out of the community to an approved storage or disposal site.

☐ Other:

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33. Please describe incineration system if used on site. What types of wastes will be incinerated?

Combustible waste will be incinerated in empty metal fuel drums equipped with a portable industry standard incinerator (probably the Smart Ash Portable Waste Incinerator) and the ashes will be cooled and buried.

34. Where and how will non-combustible waste be disposed of? If in a municipality in Nunavut, has authorization been granted?

Non-combustible waste will be shipped out of the camp and disposed of at the City of Iqaluit municipal waste facility if authorization is granted.

35. Describe location (relative to water bodies and camp facilities) dimensions and volume, and freeboard for all sumps (if applicable).

Holes will be dug in the gravel outwash plain next to the kitchen and shower tents and at least 35m from the nearest water body.

36. Will leachate monitoring be done? What parameters will be sampled and analyzed, and at what frequency?

No monitoring will be done as no leaching is expected from the sumps.

## **OPERATION AND MAINTENANCE**

37. Have the water supply and waste treatment and disposal methods been used and proven in cold climate? What known O&M problems may occur? What contingency plans are in place?

Since our activities will only occur in summer time, we don't expect any problems. Our camps methods have been in usage for number of years in the Arctic by Geological Survey of Canada field crews.

## **ABANDONMENT AND RESTORATION**

38. Provide a detailed description of progressive and final abandonment and restoration activities at the site.

At the end of the field season in August, everything, including all the gear and wastes, will be brought back to Iqaluit. At the camp site, all holes will be filled and nothing will be left behind.

## **BASELINE DATA**

39. Has or will any baseline information be collected as part of this project? Provide bibliography.

- ☒ Physical Environment (Landscape and Terrain, Air, Water, etc.)
- ☐ Biological Environment (Vegetation, Wildlife, Birds, Fish and Other Aquatic Organisms, etc.)
- ☐ Socio-Economic Environment (Archaeology, Land and Resources Use,
- ☐ Demographics, Social and Culture Patterns, etc.)
- ☐ Other: \_\_\_\_\_

Our project will provide the first baseline data on bedrock, surficial deposits and other geoscience topics for that region. This will reduce risks to exploration, resource development and land use planning.

## **REGULATORY INFORMATION**

40. At a minimum, you should ensure you have a copy of and consult the documents below for compliance with existing regulatory requirements:

- ✓ ARTICLE 13 – *NCLA -Nunavut Land Claims Agreement*
- ✓ NWSRTA – *The Nunavut Waters and Nunavut Surface Rights Tribunal Act, 2002*
- ✓ *Northwest Territories Waters Regulations, 1993*
- ✓ NWB - Water Licensing in Nunavut - Interim Procedures and Information Guide for Applicants
- ✓ NWB - Interim Rules of Practice and Procedure for Public Hearings
- ✓ RWED – *Environmental Protection Act, R-068-93- Spill Contingency Planning and Reporting Regulations, 1993*
- ✓ RWED A Guide to the Spill Contingency Planning and Reporting Regulations, 2002
- ✓ NWTWB - Guidelines for Contingency Planning
- ✓ *Canadian Environmental Protection Act, 1999 (CEPA)*
- ✓ *Fisheries Act, RS 1985 - s.34, 35, 36 and 37*
- ✓ DFO - Freshwater Intake End of Pipe Fish Screen Guideline
- ✓ NWTWB - Guidelines for the Discharge of Treated Municipal Wastewater in the NWT
- ✓ Canadian Council for Ministers of the Environment (CCME); Canadian Drinking Water Quality Guidelines, 1987
- ✓ Public Health Act - Camp Sanitation Regulations
- ✓ Public Health Act - Water Supply Regulations
- ✓ *Territorial Lands Act and Territorial Land Use Regulations; Updated 2000*