

**NIRB File No. 11UN042**

August 29, 2011

John Main  
Economic Development Officer  
Hamlet of Arviat  
PO Box 150  
Arviat, Nunavut  
X0C 0E0  
867-857-2941

Via email: [arviatcedo@qiniq.com](mailto:arviatcedo@qiniq.com)

**Re: Notice of Part 4 Screening for Hamlet of Arviat's "Surface Diamond Driller Training Program" project proposal**

Dear John Main:

On August 3, 2011, the Nunavut Impact Review Board (NIRB or Board) received the "Surface Diamond Driller Training Program" project proposal directly from the Hamlet of Arviat (the Proponent). On August 22, 2011, the NIRB received a referral for screening of this project proposal from the Government of Nunavut Department of Community and Government Services (GN-CGS). On August 26, 2011, the NIRB received a positive conformity determination (Keewatin Regional Land Use Plan) from the Nunavut Planning Commission (NPC) for this file. The NIRB has assigned this project proposal file number **11UN042** - please reference this file number in related future correspondence.

The proposed project is located on two (2) sites – approximately one (1) hectare – adjacent to an existing road east of the runway in the community of Arviat, Kivalliq Region. The objective of the proposed project is to conduct a drilling training program with an emphasis on environmental awareness. The program is proposed to take place twice annually, for a total of 10 weeks, from September 2011 to December 2016.

The proposed project activities include:

- Transporting a diamond drill and associated drill shack to site(s);
- Installing pumps, heaters, and generator associated with the diamond drill on site(s);
- Setting up two (2) "sea-can" containers as dry shacks/tool storage areas on site(s);
- Conducting drilling training program on site(s);
- Use of approximately 30,000 litres of fuel and 1,250 cubic metres of water per year;
- Transferring drilling waste into pits or sumps;
- Disposal of sewage at municipal sewage lagoon in Arviat;
- Disposal of solid wastes in approved municipal sites; and

- Conducting a final post-closure inspection/clean-up of sites.

All documents received and pertaining to this project proposal can be obtained from the NIRB's ftp site at <http://ftp.nirb.ca/01-SCREENINGS/ACTIVE%20SCREENINGS/11UN042-Hamlet%20of%20Arviat-Arviat%20Surface%20Diamond%20Driller's%20Program/> including:

- *Land Use Permit Application – GN-CGS*
- *Project location maps*
- *Water Licence Application – Nunavut Water Board*
- *Non-Technical Project Proposal Summary in English and Inuktitut*
- *Conformity Determination – NPC*

Pursuant to Article 12, Part 4 of the Nunavut Land Claims Agreement (NLCA), the NIRB shall proceed to screen this project proposal. The NIRB may request additional information at any time during the process. The NIRB will copy you on screening process related correspondence and upload related documents to the above ftp site for public access.

Be advised that the NIRB is copying parties and municipalities potentially affected by this project proposal. Interested parties are encouraged to comment directly to the NIRB by **September 8, 2011**.

The NIRB would like parties to provide comments regarding:

- Whether the project proposal is likely to arouse significant public concern; and if so, why;
- Whether the project proposal is likely to cause significant adverse eco-systemic and socio-economic effects; and if so, why;
- Whether the project is of a type where the potential adverse effects are highly predictable and mitigable with known technology, (please provide any recommended mitigation measures); and
- Any matter of importance to the Party related to the project proposal.

Please note that proposed project-specific terms and conditions, should the project proceed, have been attached for consideration and comment (**Appendix A**).

Please send your questions, concerns, or comments to the NIRB at [info@nirb.ca](mailto:info@nirb.ca), 867-983-4609 or via fax at **(867) 983-2594**.

Sincerely,



Kofi Boa-Antwi, M.Sc.  
Technical Advisor  
Nunavut Impact Review Board

cc: Distribution List  
Matthew Ferris, Government of Nunavut Department of Community and Government Services

Ralph Ruediger, Government of Nunavut Department of Community and Government Services  
Phyllis Beaulieu, Nunavut Water Board

Attachments: Appendix A – *Proposed* Project Specific Terms and Conditions

Enclosures (2): Comment Forms (English and Inuktitut)

## **Appendix A**

### *Proposed Project Specific Terms and Conditions*

The following is a list of project-specific terms and conditions which, should the project proceed, may be recommended to be attached to any approval.

#### **General**

1. The Hamlet of Arviat (the Proponent) shall maintain a copy of the Project Terms and Conditions at the site of operation at all times.
2. The Proponent shall forward copies of all permits obtained and required for this project to the Nunavut Impact Review Board (NIRB) prior to the commencement of the project.
3. The Proponent shall operate in accordance with all commitments stated in correspondence provided to NIRB, to the Government of Nunavut Department of Community and Government Services (Land Use Permit Application, July 27, 2011), and to the Nunavut Water Board (Water Licence Application, July 27, 2011).
4. The Proponent shall operate the site in accordance with all applicable Acts, Regulations and Guidelines.

#### **Water Use**

5. The Proponent shall not extract water from any fish-bearing water body unless the water intake hose is equipped with a screen of appropriate mesh size to ensure that there is no entrapment of fish. Small lakes or streams should not be used for water withdrawal unless approved by the Nunavut Water Board.
6. The Proponent shall not use water, including constructing or disturbing any stream, lakebed or the banks of any definable water course unless approved by the Nunavut Water Board.

#### **Waste Disposal**

7. The Proponent shall keep all garbage and debris in bags placed in a covered metal container or equivalent until disposed of at an approved facility. All such wastes shall be kept inaccessible to wildlife at all times.
8. The Proponent shall ensure that no waste oil/grease is incinerated on site.

#### **Fuel and Chemical Storage**

9. The Proponent shall locate all fuel and other hazardous materials a minimum of thirty-one (31) metres away from the high water mark of any water body and in such a manner as to prevent their release into the environment.
10. The Proponent shall ensure that re-fuelling of all equipment occur a minimum of thirty-one (31) metres away from the high water mark of any water body.
11. The Proponent shall store all fuel and chemicals in such a manner that they are inaccessible to wildlife.
12. The Proponent shall use adequate secondary containment or a surface liner (e.g. self-supporting insta-berms and fold-a-tanks) at all refuelling stations. Appropriate spill response equipment and clean-up materials (e.g., shovels, pumps, barrels, drip pans, and absorbents) must be readily available during any transfer of fuel or hazardous substances, as well as at vehicle-maintenance areas.
13. The Proponent shall inspect and document the condition of all fuel storage facilities immediately upon delivery and thereafter on a weekly basis. All fuel and chemical storage

containers must be clearly marked with the Proponent's name and fuel caches flagged so they remain visible in the winter months.

14. The Proponent shall remove and treat hydrocarbon contaminated soils on site or transport them to an approved disposal site for treatment.
15. The Proponent shall ensure that all personnel supervising students are properly trained in fuel and hazardous waste handling procedures, as well as in spill response procedures. All spills of fuel or other deleterious materials of any amount must be reported immediately to the 24 hour Spill Line at (867) 920-8130.

### **Wildlife - General**

16. The Proponent shall ensure that there is no damage to wildlife habitat in conducting this operation.
17. The Proponent shall take all possible measures to avoid wildlife encounters. Any problem wildlife should be reported immediately to the Government of Nunavut, Department of Environment.
18. The Proponent shall not harass wildlife. This includes persistently worrying or chasing animals, or disturbing large groups of animals. The Proponent shall not hunt or fish, unless proper Nunavut authorizations have been acquired.
19. The Proponent shall ensure that all project personnel are made aware of the measures to protect wildlife and are provided with training and/or advice on how to implement these measures.

### **Migratory Birds and Raptors Disturbance**

20. The Proponent shall not disturb or destroy the nests or eggs of any birds. If nests are encountered and/or identified, the Proponent shall take precaution to avoid further interaction and or disturbance (e.g., a 100 metre buffer around the nests). If active nests of any birds are discovered (i.e. with eggs or young), the Proponent shall avoid these areas until nesting is complete and the young have left the nest.

### **Caribou Disturbance**

21. If caribou cows are observed calving or are accompanied by caribou calves within the project area, the Proponent must suspend all drilling operations until the caribou and their calves have moved 1 km away from project area.

### **Ground Disturbance**

22. The Proponent shall not move any equipment or vehicles unless the ground surface is in a state capable of fully supporting the equipment or vehicles without rutting or gouging. Overland travel of equipment or vehicles must be suspended if rutting occurs.
23. The Proponent shall implement suitable erosion and sediment suppression measures on disturbed areas before, during and after construction and operation of the drilling program in order to prevent sediment from entering any water body.

### **Drilling on Land**

24. The Proponent shall not conduct any land based drilling or mechanized clearing within thirty-one (31) metres of the normal high water mark of a water body unless approved by the Nunavut Water Board.

25. If an artesian flow is encountered, the Proponent shall ensure the drill hole is immediately plugged and permanently sealed.
26. The Proponent shall ensure that all drill areas are constructed to facilitate minimizing the environmental footprint of the project area. Drill areas should be kept orderly with garbage removed daily to an approved disposal site.
27. The Proponent shall ensure that all sump/depression capacities are sufficient to accommodate the volume of waste water and any fines that are produced. The sumps shall only be used for inert drilling fluids, and not for any other materials or substances.
28. The Proponent shall not locate any sump within thirty-one (31) metres of the normal high water mark of any water body without approval of the Nunavut Water Board. Sumps and areas designated for waste disposal shall be sufficiently bermed or otherwise contained to ensure that substances do not enter a waterway unless otherwise authorized.
29. The Proponent shall ensure all drill holes are backfilled or capped prior to the end of each field season. The Proponent shall ensure that all sumps are backfilled and restored to original and/or stable profile prior to the end of each field season.
30. The Proponent should assess alternatives (including biodegradable and non-toxic options) to drill additives prior to the use of calcium chloride, as these salts in high concentrations are harmful to the environment. If calcium chloride is to be used, the Proponent should ensure that return water is contained in a properly constructed sump. The Proponent should not rely on permafrost integrity to contain and isolate drilling waste.

#### **Temporary Storage Facilities**

31. The Proponent shall ensure that all temporary storage facilities, including “sea-cans”, are located on gravel, sand or other durable land.

#### **Restoration of Disturbed Areas**

32. The Proponent shall ensure that all disturbed areas are restored to a stable or pre-disturbed state as practical as possible upon completion of field work.

#### **Other**

33. The Proponent shall ensure that the land use area is kept clean and tidy at all times.