



Water Resources
Nunavut Regional Office
P.O. Box 100
Iqaluit, NU, X0A 0H0

NWB file - Votre référence
2BE-CHI0813 - Renewal

AANDC file - Notre référence
IQALUIT - # 602275

October 18, 2012

Phyllis Beaulieu
Manager of Licensing
Nunavut Water Board
P.O. Box 119
Gjoa Haven, NU, X0A 1J0

**Re: Water Licence No. 2BE-CHI0813, Renewal Application – Chidliak
Diamond Exploration Project – Peregrine Diamonds Ltd**

Aboriginal Affairs and Northern Development Canada (AANDC) has performed a review of Peregrine Diamonds Ltd's renewal application for water licence number 2BE-CHI0813 – Chidliak Diamond Exploration Project, located in the Qikiqtaaluk region. The Nunavut Water Board distributed the application for comment on September 18, 2012. The following comments are provided pursuant to AANDC's mandated responsibilities under the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* and the *Department of Indian Affairs and Northern Development Act*.

In conducting this review, I have referred to all documents on the Nunavut Water Board's FTP site as it relates to 2BE-CHI. Attached is a Technical Review Memorandum for your consideration.

Please feel free to contact me should you have any questions or comments. I can be reached at 867.975.4566 or by email at Andrea.Cull@aandc-aadnc.gc.ca.

Sincerely,

Originally signed by

Andrea Cull
Pollution Policy Specialist, AANDC

Cc: Murray Ball, Manager of Water Resources, AANDC
Andrew Keim, A/Manager of Field Operations, AANDC

Technical Review Memorandum

To: Phyllis Beaulieu – Manager of Licensing, Nunavut Water Board

From: Andrea Cull – Pollution Policy Specialist, Aboriginal Affairs and Northern Development Canada

Re: Water Licence No. 2BE-CHI0813, Renewal Application – Chidliak Diamond Exploration Project – Peregrine Diamonds Ltd

Background

Peregrine Diamonds Ltd. "*the Proponent*" has submitted an application for a renewal water licence number 2BE-CHI – Chidliak Diamond Exploration Project, located in the Qikiqtaaluk region. The Proponent is interested in continuing exploration work in the area.

The Proponent has been conducting exploration work at Chidliak since 2008, following issuance of Type B Water Licence #2BE-CHI0813. The Proponent is seeking to renew its water licence for an additional five (5) years.

The Chidliak Project currently is comprised of three (3) tent camps – Discovery Camp, Sunrise Camp and Aurora Camp. A forth tent camp, CH-6 Camp will be operational in 2013.

This amendment application includes five (5) adjustments to the current water licence,

- 1- An additional contingency water source for CH-06;
- 2- Use of the approved Equipment Trail to transport kimberlite bags off site by a CAT Challenger pulling a sleigh;
- 3- Use of the approved Equipment Trail for return transport of the Challenger to site with a sleigh filled with fuel drums;
- 4- A contingency natural landing strip at Discovery Camp, for winter landings when a cross-wind prevents safe landing on the existing strip, and
- 5- Several additional options for hole diameters for the bulk-sampling program.

Recommendations/Comments

On behalf of the Aboriginal Affairs and Northern Development Canada (AANDC) Water Resources Division the following comments/ recommendations are provided to the Nunavut Water Board (the Board) for consideration.

- **Waste**

Hazardous Waste

AANDC recommends that Hazardous waste/waste oil materials and hydrocarbon contaminated soil stored on-site should be clearly labeled with labels visible under all conditions and in all seasons. This recommendation is intended to prevent possible damage or misplacement of the containers.

AANDC recommends that the Proponent remove all hazardous materials/ waste oil from the site on a regular basis to prevent the over-accumulation of these materials. Hazardous waste/waste oils must be disposed of at an approved facility outside of the Territory of Nunavut (no known facilities within Nunavut). All transfer of this type of waste must be in accordance with the Government of Nunavut "Guideline for General Management of Hazardous Waste - January, 2002". In addition hazardous wastes should be stored within a lined secondary containment structure to prevent any off site impacts (other secured structures would also be acceptable).

AANDC recommends that the Proponent be required to submit copies of all manifest forms related to the transport of hazardous waste/waste oil as part of the Annual Report for this site.

Greywater and Drilling Wastes

AANDC recommends that all sumps for the disposal of grey water or drilling wastes shall be located a minimum distance of 31 meters from any water body and shall be managed to ensure that there are no adverse effects to the quality, quantity and flow of water. Furthermore, all sumps shall be backfilled and contoured to match the surrounding landscape prior to the end of the project.

- **Incineration**

No Open Burning

According to Environment Canada's (EC) Technical Document for Batch Waste Incineration Guidelines, there should be no open burning of plastics, wood treated with preservatives, electrical wire, Styrofoam, asbestos or painted wood. This is to prevent the deposition of waste materials from

incomplete combustion and/or leachate from contaminated ash residues from affecting any surrounding waters.

AANDC recommends that there be no open burning, rather incineration be used.

Incineration

AANDC recommends the Nunavut Water Board consider specifying a mode of incineration. This would provide greater clarity to the Proponent, and ensure waste is incinerated appropriately as to avoid possible leaching into surrounding waters from improperly burnt ash, and the excessive deposition of particulate matter into watersheds which could adversely affect water quality. For camps of 10 to 50 people or greater, it is generally advised to use a dual chamber forced-air incinerator or a dual chamber controlled-air incinerator. The new proposed exploration camp will house 30 people.

EC's Technical Document for Batch Waste Incineration Guidelines recommends that a facility incinerating more than 26 tons of waste per year should do so with a dual chamber, controlled air incinerator. The Proponent shall make determined efforts to achieve compliance with the Canada-Wide Standards for Dioxins and Furans and the Canada-Wide Standard for Mercury Emissions. Efforts should include the implementation of a comprehensive waste management strategy (especially waste segregation) that is designed to reduce and control the volumes of wastes produced, transported, and requiring disposal. AANDC also recommends that the waste management strategy include a procedure to ensure that inappropriate materials are not incinerated.

- **Drilling**

Prior to the commencement of diamond drilling the Proponent shall submit to the Inspector proposed drill targets on a 1:50,000 scale map with the coordinates and map datum.

If drilling extends through the permafrost base, AANDC recommends the Proponent be required to provide the drill locations and depth of the permafrost in their annual report to the Board.

- **Water Use**

AANDC recommends that the new water licence should include water use from the contingency source located at CH-6 camp. This additional water source may not increase the amount of water being used daily but it should be listed as a water source in the new water licence.

- **Spill Contingency Plan**

The Spill Contingency Plan should make reference to the Nunavut Spill Report Line and include a copy of the Nunavut Spill Report Form. This form can be obtained from the Nunavut Water Board public registry at <http://www.nunavutwaterboard.org>.

Please note that the 24-hour Spill Report Line telephone number is 867.920.8130 and facsimile number is 867.873.6924. Furthermore, AANDC requests the Proponent report all spills to the Manager of Field Operations/AANDC, by phone at 867.975.4295 and by fax at 867.975.6445, as well as the Nunavut Spill Report Line.

The spill contingency plan should include information related to the fuel sleigh being used to transport fuel drums on the approved equipment trail.

- **AANDC Field Operations Inspection Report**

Please note that during the 2012 field season an AANDC Water Resource Officer inspected the site. A detailed inspection report will be provided to the NWB.

- **Additional Comments**

AANDC has no additional comments on the renewal application for water licence No. 2BE-CHI0813 and suggests that the existing terms with proposed amendments would be appropriate for the activities cited in the application.

Prepared by Andrea Cull

Cc: Murray Ball, Manager of Water Resources, AANDC
Andrew Keim, A/Manager of Field Operations, AANDC