



April 28, 2011

Our reference
IQALUIT-#456624

Sent by email: licensing@nunavutwaterboard.org

Phyllis Beaulieu
Manager of Licensing
Nunavut Water Board
Gjoa Haven, Nunavut
X0E 1J0

Your reference
2BE-CDP----

**Re: Type 'B' Water Licence No. 2BE-CDP---- – Carat Project – Shear
Diamonds (Nunavut) Corp. – Kitikmeot Region – New Application**

Dear Phyllis,

Thank you for your March 28, 2011 request for written representations on the
above referenced water licence application.

A Technical Review Memorandum is provided for the Board's consideration.

Please do not hesitate to contact me by telephone at 867 975-4555 or email at
David.Abernethy@inac-ainc.gc.ca to discuss this submission.

Regards,

David W. Abernethy
Water Resources Regional Coordinator
Operations Directorate
Nunavut Regional Office
Iqaluit, Nunavut
X0A 0H0

Encl.

c.c.: J. Rogers, Water Resources Manager
P. Kusugak, Field Operations Manager

Technical Review Memo

TO	Phyllis Beaulieu Manager of Licensing Nunavut Water Board	OUR REFERENCE File #9545-2-1.2BE.CDPA IQALUIT-#456624
FROM	David Abernethy Water Resources Regional Coordinator Indian and Northern Affairs Canada	YOUR REFERENCE 2BE-CDP---- DATE April 28, 2011
SUBJECT	Type 'B' Water Licence No. 2BE-CDP---- – Carat Project – Shear Diamonds (Nunavut) Corp. – Kitikmeot Region – New Application	

A. PROJECT DESCRIPTION

On March 28, 2011 the Nunavut Water Board (the Board) distributed Shear Diamonds (Nunavut) Corp.'s (Shear Diamonds) application for a new Type B water licence to allow for the use of water and disposal of waste materials associated with their Carat Project. They are requesting a five year term.

The Carat Project area surrounds the Jericho Diamond Mine, a separate Shear Diamonds project that is licensed by the Board (i.e., Water Licence No. 2AM-JER0410). This area is located 266 km southeast of the Hamlet of Kugluktuk and 450 km southeast of the Hamlet of Cambridge Bay. Project activities include ground and airborne geophysical surveys, prospecting, rock, till and soil sampling, geological mapping, diamond drilling, test pit trenching, and a possible bulk sample program. Project personnel will be accommodated at the Jericho site.

Water use will be for drilling purposes only, consuming a maximum of 50 m³ per day. Water will be drawn from lakes near and/ or under drill targets (i.e., for ice-based drilling operations). Drill cuttings and drill water will be pumped to sumps located at least 31 metres above the normal high water mark of any water body in a manner that prevents direct entry into receiving water bodies. Shear Diamonds (Nunavut) Corp. anticipates that water use for each drill hole will be less than 150 m³. Their 2011 exploration program calls for 15 drill holes.

Waste oil resulting from the drilling activities will be backhauled to the Jericho site for storage followed by shipment to an off-site licensed disposal facility. Any solid wastes will be backhauled to the Jericho site for disposal.

Included in Shear Diamonds application are a Spill Prevention and Response Plan and an Abandonment and Reclamation Plan.

B. RESULTS OF REVIEW

On behalf of the Indian and Northern Affairs Canada (INAC) Water Resources Division I am providing the following comments/ recommendations for the Board's consideration,

1. General

- Standard water licence terms and conditions applicable to the proposed project activities should be included in a Type B Water Licence.
- Prior to the upcoming field season, Shear Diamonds should revise their project management plans to address the findings of this water license application review.

2. On-Ice Drilling Monitoring Program

- Section 13 of the submitted General Water Licence Application Form states that, "for on-ice drilling, water quality sampling will be conducted prior to, during, and after drilling." Shear Diamonds does not state which parameters will be included in their monitoring program. The INAC Water Resources Division recommends that the following physical parameters be monitored: pH, temperature, conductivity, and dissolved oxygen. Collected information should be provided to the Board .

3. Fuel Management

- The submitted Spill Response Plan should be revised to include the estimated quantity of fuel that will be used to support project activities.
- The INAC Water Resources Division recommends that the company follow a precautionary principle and use secondary containment at locations where fuel, chemicals, and other hazardous materials (e.g., lubricants and waste oils) are stored. If storage exceeds 4,000 L, secondary containment should be provided.

- The submitted Spill Response Plan should be revised to include the following INAC Water Resource Officer contact information: Tel. 867 975-4295, Fax. 867 979-6445. The INAC Water Resource Officer should be notified of any hazardous material spills.

Prepared by David Abernethy

c.c.: J. Rogers, Water Resources Manager
P. Kusugak, Field Operations Manager