



Water Resources  
Nunavut Regional Office  
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August 20, 2012

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

Your file - Votre référence  
2BE-QIL0712  
Our file - Notre référence  
CIDM# 554859

**Re: 2BE-QIL0712 – Stornoway Diamond Corporation – Qilalugaq Project –  
Renewal / Amendment Application**

Dear Phyllis Beaulieu:

Aboriginal Affairs and Northern Development Canada (AANDC) has performed a review of the renewal / amendment application for water licence 2BE-QIL0712 (Qilalugaq Project) submitted by Stornoway Diamond Corporation to the Nunavut Water Board (NWB). The following advice has been provided pursuant to AANDC's mandated responsibilities for the enforcement of the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* (NWNSRTA) and the *Department of Indian Affairs and Northern Development Act* (DIAND Act). In conducting our review, AANDC referred to the documents on the NWB's FTP-site under 2BE-QIL0712.

Should you have any questions or comments, please do not hesitate to contact me at (867) 975-4738 or by e-mail at [Jean.Allen@aandc-aadnc.gc.ca](mailto:Jean.Allen@aandc-aadnc.gc.ca)

Sincerely,

*Original Signed By*

Jean Allen  
Water Management Specialist

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: Jean Allen – Water Management Specialist, Aboriginal Affairs and  
Northern Development Canada

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**Re: 2BE-QIL0712 – Stornoway Diamond Corporation – Qilalugaq Project –  
Renewal / Amendment Application**

### **A. Background**

On July 20, 2012, the Nunavut Water Board (NWB) distributed Stornoway Diamond Corporation's (Stornoway) application to renew and amend water licence 2BE-QIL0712. Stornoway is proposing to renew the water licence for a term of 5 years (June 2012 to September 30, 2017) and to amend the current water licence for exploration activities to allow for the proposed bulk sampling program which will extract approximately 1,500 tonnes of material from the A-28 portion of the Q1-4 Kimberlite Complex for the purposes of properly characterizing the diamond population and estimating the diamond value of the kimberlitic body.

The Qilalugaq Property is located in the Kivalliq Region, approximately 10km outside of the Hamlet of Repulse Bay. Due to the proximity of the sample area to the hamlet, camp facilities will not be required. Personnel for the program will include an 8 member field crew (4 of 8 members will be hired locally from Repulse Bay) plus 2 helicopter pilots, 1 engineer, and 1 cook/first aid attendant. The bulk sample location (86° 07' 16.7" N, 66° 35' 32.7" W) was identified as being on Commissioner's Land within the municipal boundary of Repulse Bay and thus requires surface access permission for bulk sampling.

The bulk sampling program is proposed to start in July 2013 for 6 weeks (depending on weather and logistics) and will involve excavation of sample material using a small mini-excavator and deposition of rock into large 1 m<sup>3</sup> polypropylene mega bags which will then be transported to Repulse Bay via helicopter then shipped south via barge to a processing facility.

The water licence amendment application proposes to change water use from 20 m<sup>3</sup> per day to 0 m<sup>3</sup> per day and that all waste (minimal solid waste, waste oil, empty fuel drums) will be backhauled to Repulse Bay for proper disposal. Stornoway proposes to store between 411 L to 58,220 L of fuel depending on the fuel storage scenario selected.

## **B. Results**

AANDC offers the following comments / recommendations for the NWB's consideration.

### **General**

- AANDC notes that applications have been submitted to the Nunavut Planning Commission (NPC) and the Nunavut Impact Review Board (NIRB) for amendment changes to the conformity and screening determinations respectively and that approval of this application will depend on these two determinations.
- AANDC acknowledges that the bulk sampling area is located on Commissioner's Land and that approval of the water licence amendment will depend on the decision provided by the administering agency.
- The Proponent indicated that a land use conformity determination was required from the NPC prior to issuance of the existing water licence, but the issue date and a copy was not found as requested in Box 7 of the application.
- Clarification is required as to whether exploration activities (i.e. drilling) are expected during the proposed term of the renewed water licence.
- AANDC notes that all solid waste and hazardous waste will be backhauled to Repulse Bay for proper disposal and that empty fuel drums will be crushed in Repulse Bay then shipped south for proper disposal. AANDC recommends that the applicant submit to the NWB, written authorization from the Hamlet of Repulse Bay confirming that they will accept the proposed types and quantities of waste for proper disposal at the solid waste management facility.
- AANDC notes that public consultation has not yet been conducted regarding the proposed land use activity but information meetings are proposed in Repulse Bay in September 2012. AANDC recommends that the results of these community consultations be submitted to the NWB.
- According to the Supplementary Questionnaire for Advanced Exploration, a seasonal camp 15km northwest of the proposed bulk sample site location has since been reclaimed by the previous owner. Unsecured fuel barrels were observed on site during a fly over inspection conducted in 2009. Clarification is required from the proponent whether all materials were removed from the site. AANDC recommends that all components of the project, no longer required for advanced exploration, be reclaimed and/or removed from the site prior to initiation of the next phase (bulk sampling program).
- The proponent assumes that no groundwater will gain access to the trenching area. It is recommended that the Proponent justify why no natural groundwater is expected. If there exists a possibility that natural groundwater could gain access to the trench, AADNC recommends regular monitoring and a treatment plan for groundwater should removal from the trenching area be required (i.e. sump).

## **Spill Contingency Plan**

- Section 2.0 lists 2 scenarios for fuel storage (fuel stored in Repulse Bay vs. storage on site). AANDC recommends that the applicant inform the NWB indicating which scenario will be implemented prior to any storage of fuel within the Qilalugaq Project area once a decision has been made.
- AANDC acknowledges Appendix I, Number 9 where the proponent commits to updating the Spill Contingency Plan to include a schematic of the location of the temporary secondary containment structure including topography, nearby water bodies, etc. should scenario 2 (fuel stored on site) be selected.
- Section 5.1 lists the DIAND Water Resource Inspector as a Spill Response Contact but the contact information is incorrect. The contact information is Phone: (867) 975-4295, Fax: (867) 975-6445.
- Section 6.3 suggests using particulate absorbent material to remove spills splashed on vegetation. Clarification is required as to what absorbent material is proposed for this project, how it will be stored on site and how it will be disposed. If there is no intention to use particulate absorbent material, AANDC recommends that this be removed prior to approval of the plan.
- Section 6.3 suggests burning of diesel fuel on muskeg. AANDC recommends that burning only be considered if other methods are not feasible and only undertaken with the approval of appropriate authorities.
- Section 7.0 provides the contents of a large spill kit to be located at the fuel cache (in Repulse Bay as described in scenario 1 or at a temporary fuel storage site as described in scenario 2). Should the first scenario be selected, AANDC recommends that a small spill kit also be located at the fuel storage site with the ability to respond to 410 L of fuel).
- The map in Appendix II shows the proposed bulk sample area but does not show locations for spill kit(s), fuel storage, helicopter landing site(s), or potential sensitive areas (water, archaeological sites, traditionally used sites, etc.). AANDC recommends that a more detailed map be provided to the NWB.
- The Material Safety Data sheet (MSDS) for oil was not found in Appendix III. AANDC recommends that the spill contingency plan include MSDS for all chemicals associated with the Qilalugaq Project.

## **Abandonment and Restoration Plan**

- AANDC acknowledges that no rock stockpiles will remain on site and all extracted rock will be removed from the area.
- AANDC acknowledges that all equipment, site infrastructure (i.e. secondary containment structures, etc.), site material, fuel, and waste (solid waste, hazardous waste, and fuel drums) will be removed from the site and the site will be recontoured to match the surrounding terrain.
- AANDC notes that Part H, Item 9 of the current water licence 2BE-QIL0712 states that drill holes shall be reclaimed and drill casings

removed. AANDC recommends that if any drill casings remain within the Qilalugaq property, that these areas be restored to natural conditions. Since drill areas are no longer required, AANDC recommends that the proponent carry out progressive reclamation of these drill sites in accordance with Part H, Item 2 of the current water licence.

- The proponent indicates that photographs will be taken upon completion of abandonment and restoration activities. AANDC recommends that photographs be taken of areas already reclaimed and areas being progressively reclaimed. Photographs taken prior to bulk sampling activities are also encouraged.