# APPENDIX “A”

## *ADDITIONAL INFORMATION*

**Appendix "A"**
**Application for Water License Amendment – Nunavut Water Board**
**2BE-QIL0712**
**The Qilalugaq Project**

9. **Description of Undertaking** – *List and attach plans and drawings of project proposal*

The new land use activity being proposed in this amendment application is a bulk sample program which will extract approximately 1,500 tonnes of material from the "A-28" portion of Q1-4 Kimberlite Complex on Stornoway Diamond Corporation's ("Stornoway") Qilalugaq Project. The Qilalugaq Property ("the Property") is located approximately 10 km outside of the hamlet of Repulse Bay and takes about 5 to 7 minutes to reach via helicopter.

The property has undergone several phases of exploration since being acquired by its previous owner, BHP Billiton, in 2001 including activities such as airborne geophysics, till sampling, and drilling. The purpose of this next phase of exploration is to aid in properly characterizing the diamond population and provide a preliminary estimate of diamond value of the kimberlitic body.

The proposed program will be conducted during the months of July and August in either the summer of 2012 or the summer of 2013.

The sample material will be dug up using a small, helicopter portable Kubota (or similar style) tracked mini-excavator which will deposit the rock into large, $1m^3$ polypropylene mega bags. The filled bags will then be slung by helicopter back to a yet to be determined area in town in preparation for shipment south, via barge, to a processing facility

The execution of this land use operation is subject to several variables because certain logistics cannot be finalized until much closer to the actual commencement of the proposed program. Therefore this application includes descriptions of each of the possible scenarios that could be utilized in regards to trench configuration, fuel storage, and fuel handling.

*Excavation/Trenching*

The rock to be sampled from A28 is a green tuffisitic (volcanic) kimberlite that intruded into the surrounding granitic gneiss country rocks. It is massive in texture, relatively competent and softer than the surrounding country rocks. It is made up of olivine, phlogopite, serpentine, clays and ~25% local rocks (incorporated during the intrusion).

The sample site is located at 86º 07' 16.7 W, 66º 35' 32.7" N (WGS84). It is approximately 10 meters above local lake level and 58 meters away from the nearest lake's normal high water mark.

The excavation of material will be carried out using a small, helicopter portable Kubota (or similar style) tracked mini-excavator. The excavator will be either a 2.5 tonne or 3.5 tonne model and will be transported to and from the land use area via helicopter (See Appendix "C" for detailed specification sheets on these machines).

There are several variables when it comes to the configuration of the excavation/trenching patterns and the final decision as to which one will be adopted has not yet been made.

The possible trenching configurations are as follows;

| Number of Trenches | Length of each Trench (meters) | Width (meters) | Depth (meters) |
|---|---|---|---|
| 1 | 650 | 1 | 1.0 |
| 1 | 100 | 6 | 1.2 |
| 2* | 50 | 1 | 1.2 |
| 4** | 55 | 3 | 1.0 |

** these 2 trenches will either form an "x" pattern or run parallel to each other*
*** these 4 trenches will run parallel to each other*

Below are some basic figures depicting three of the possible trenching configurations.

***Figure 1 – 1 Trench***

***Figure 2 – 2 Trenches, Parallel***


***Figure 3 – 2 Trenches, Crossing***

Once filled with kimberlite rock the mega bags will be backhauled via helicopter each work day to a site in the town (yet to be determined) where they will be prepared for shipment to a processing facility in the south. Under optimal conditions it is projected that approximately 40 filled mega bags will be flown from the sample site to the hamlet of Repulse Bay each full working day and that approximately 1,500 tonnes of material will be extracted from the area of interest over a period of 42 days (weather and logistics depending).

*Fuel Storage*

Fuel storage is one of the variables that cannot be finalized until closer to the execution of the land use operation.

The preferred fuel management plan would involve purchasing Jet-B fuel for the helicopter from the airport bulk tanks for truck delivery (if available). If this service is not available then drummed fuel will be purchased and either stored at a pre-determined location in Repulse Bay (Scenario 1) or in a temporary storage berm at the bulk sample location site (Scenario 2).

Described below are the two scenarios which are being considered as options for fuel storage should drummed fuel be required to support the program through its entirety.

For the amount and types of fuel required please see the table under Section 11.

Scenario 1 - The preferred storage option should drummed Jet-B fuel be required will involve securing a site in the hamlet of Repulse Bay where the drums of jet fuel could be temporarily stored (i.e. the airport) for the duration of the 6 week land use operation. This scenario will require only a minimal amount of fuel on the land; one 205 liter drum of diesel to fuel the tracked excavator and one 205 liter drum of Jet-B fuel (to serve as an emergency reserve for the helicopter).

Scenario 2 - Should a suitable storage location in the hamlet of Repulse Bay not be available then jet fuel to support the six week program will be transported to the bulk sample site location and placed in a temporary storage berm.

The temporary berm will be constructed at a suitable location close to the excavation site, contain an impervious liner, and will include a “rain drain” type filtration device with sufficient capacity to service the size of the secondary containment area. Should a temporary berm be required a schematic of its location including topography, nearby water bodies, etc. will be added to the Spill Contingency Plan for the Qilalugaq Project and a copy submitted to all requisite regulatory agencies as soon as is practicable.

At the end of the land use operation all fuel drums will be removed from the site, the temporary fuel storage berm dismantled, and the surface area re-contoured to match the surrounding terrain. No fuel will be left on the land and all empty drums will be backhauled for proper disposal.

For a more detailed description of the fuel handling and storage procedures associated with each of these scenarios, including the refueling of equipment, please see the Spill Contingency Plan for the Qilalugag Project which has been updated and is specific to the bulk sample activity that is being proposed in this amendment application.

For a more detailed description of the abandonment and reclamation procedures that will be adopted should the construction of a temporary berm be required please see the Abandonment and Reclamation Plan for the Qilalugaq Project which has also been updated and is specific to the bulk sample activity that is being proposed in this amendment application.

10. **Options** - *Provide a brief explanation of the alternative methods or locations that were considered to carry out the project*

There is no alternative method for acquiring the data that will be obtained from conducting the bulk sampling program described in this amendment application; however there are alternatives for how the program can be carried out.

The execution of this land use operation is subject to several variables because certain logistics cannot be finalized until much closer to the actual commencement of the proposed program; therefore this application includes descriptions of each of the possible scenarios that could be utilized in regards to trench configuration, fuel storage, and fuel handling. The alternatives for each of the variables which have not yet been determined are addressed in the applicable portion of this application.

There are other components for which alternative approaches were considered however definitive choices have been made

*Accommodation of Personnel* - The decision to not construct a temporary camp facility near the sample site and instead obtain accommodation for personnel in Repulse Bay was based on the factors of proximity and time. As the work site is only 10 km from a hamlet where accommodation can be obtained and since the program is estimated to have a duration of six weeks' time it was decided that flying personnel to and from the land use area at the beginning and end of each shift would be a much more environmentally sound option than constructing a temporary camp facility for such a relatively short period of time.

*Timing of Land Use Operation* – The proposed land use operation is being designed to take place over July and August which will allow for a small, helicopter portable Kubota (or similar style) tracked mini-excavator to be used for the trenching/excavation of the sample material. These are the warmest months in the region and due to the lack of snow cover and the softer ground conditions the small excavator will be sufficient to reach the 1.2 meter depth which is proposed for the deepest of the four trenching/excavation configurations presented as options in this application.

Should this land use operation be conducted in the winter a much larger machine would be required and the larger vehicle would not be helicopter portable it have to be driven the 10 km distance from Repulse Bay to the sample site. A winter program was not considered a viable option due to the greater potential for ground disturbance in driving a larger tracked vehicle across the land, the additional time it would take to complete the sample in winter conditions, and the high possibility of lost work days due to adverse weather conditions.

In addition, should the bulk sample take place during July 2012 it will be conducted concurrently with the surveying activities being planned for a select group of claims on the Property allowing for resources such as personnel and helicopter time to be shared.

*Transportation of Mega Bags from Sample Site* – In this application it is proposed that the filled mega bags will be transported from the sample site to Repulse Bay (where they will be prepared for shipment south) via helicopter.

Due to the amount of sample material that needs to be moved the 10 km distance between the extraction site and the hamlet the only other option to transport the mega bags would be by truck, which would require the construction of a temporary road. Due to the nature of the terrain in the area, the amount of small waterways that would have to be crossed, the fact that area in between the sample site and the hamlet is frequented by traditional land users (there are many quad paths in the area due to the site's proximity to Repulse Bay) and the lengthy regulatory process that would be required to construct a roadway that would only be utilized for a short period of time this option is not considered a viable one.

12. The current water license authorizes water use and waste disposal for activities associated with diamond drilling.

    The proposed new land use activity will not use any water however the addition of the use of a small, tracked mini-excavator to complete the bulk sampling/trenching activities described does change the waste products that will be associated with this license. Please see the answer to question 16 for additional information on the waste that will be generated by the bulk sample activity and the methods proposed for their disposal.

17. **Predicted Environmental Impacts of Undertaking and Proposed Mitigation Measures** - Describe direct, indirect and cumulative impacts related to water and waste.

    The land use activity being proposed in this amendment application will have minimal environmental impacts. No water will be used during the course of the land use operation and since no drilling will be conducted and no camp facilities required there will be little waste produced over the course of the program.

    The trenching activities have been designed so as to displace as little overburden as possible and to start digging immediately in the rock. The shallow depth of all of the configurations proposed will allow for a simple, low impact and natural re-contouring process once the sample extraction has been completed.

    The main chemicals that are projected to be on the land use area during the bulk sampling activities are all associated with the operation of the mini tracked excavator and include engine oil, antifreeze, and its 12 VDC, 52 AH battery.

    The small supply of engine oil and antifreeze that will be kept at the bulk sample site will be stored in a large, plastic, lidded storage container which will be placed on absorbent mats at all times. Any transfer of oil or antifreeze to the mine tracked excavator will take place in the designated fueling area.

    Should drummed Jet-B fuel be required the preferred storage method would be to secure a storage facility in Repulse Bay as this would require only a minimal amount of fuel to be stored at the bulk sample location. However, if a temporary storage berm needs to be constructed the potential impacts have been identified and mitigated through the development of the procedures and protocol detailed in the Spill Contingency Plan and the Abandonment and Restoration Plan for the Project.

20. **Consultation** – Provide a summary of any consultation meetings including when the meetings were held, where and with whom. Include a list of concerns expresses and measures to address concerns.

No consultation has been conducted to date regarding the new land use activity being proposed in this amendment application.

A project summary outlining the details for the proposed bulk sample activity and full contact information for the Proponent's Land Administrator will be sent to the SAO at the Repulse Bay Hamlet office and to the president of the Repulse Bay Hunters and Trappers Association. Stornoway's Land Administrator will contact the SAO and propose that an introductory conference call be scheduled with representatives from the local government whereupon a brief PowerPoint presentation can be delivered to the Council, remotely. This interactive approach to early contact will provide an opportunity for any initial questions and concerns regarding the proposed land use activity to be addressed and has proven to be a great first step in opening up the lines of communication with remote communities when used by Stornoway in the past.

Should the bulk sample activity take place in July and August of 2012 representatives from Stornoway will conduct a community information session upon their arrival in Repulse Bay and prior to the commencement of the bulk sample activity taking place.

Should the bulk sampling activity ***not*** take place in 2012 (with the projection that it may take place during July and August of 2013) representatives from Stornoway will hold a community information meeting at some point during the summer of 2012 when personnel are in the area to assist with the logistics of the planned surveying activities.

22. **The Officers of Stornoway Diamond Corporation:**

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