



P.O. BOX 119  
GJOA HAVEN, NU X0B 1J0  
TEL: (867) 360-6338  
FAX: (867) 360-6369

kNK5 wmoEp5 vtmpq  
NUNAVUT WATER BOARD  
NUNAVUT IMALIRIYIN KATIMAYINGI  
OFFICE DES EAUX DU NUNAVUT

## EXPLORATION/ REMOTE CAMP SUPPLEMENTARY QUESTIONNAIRE

Applicant: Churchill Diamond Corporation Licence No: \_\_\_\_\_

(For NWB Use Only)

### ADMINISTRATIVE INFORMATION

1. Environment Manager: TBA Tel: \_\_\_\_\_ Fax: \_\_\_\_\_ E-mail: \_\_\_\_\_
2. Project Manager: Graham Gill Tel: 604 943 0757  
Fax: 416 365 1830 E-mail: gillgeo1@hotmail.com
3. Does the applicant hold the necessary property rights?  
**Yes. Churchill Diamond Corporation owns 153 mineral claims that comprise the Pelly Bay Diamond Project which covers 170,750 hectares. A claim list is attached.**
4. Is the applicant an 'operator' for another company (i.e., the holder of the property rights)? If so, please provide letter of authorization.  
**NO.**
5. Duration of the Project

☐ One year or less Start and completion dates: \_\_\_\_\_

☒ Multi Year: \_\_\_\_\_

If Multi-Year indicate proposed schedule of on site activities

Start: June 2015 Completion: June 2020

### CAMP CLASSIFICATION

6. Type of Camp

☐ Mobile (self-propelled)  
☐ Temporary  
☒ Seasonally Occupied: April/May – September/October for life of permit  
☐ Permanent

☐ Other: \_\_\_\_\_

7. What is the design, maximum and expected average population of the camp?  
**The main campsite being considered that will be used for the 2016 – 2020 exploration program will be capable of housing up to 10-30 people and is situated on the eastern shore of the Nurraqsiuruik River at Latitude: 68° 07' 35" N / 90° 04' 23"W**  
(see pictures attached of previously operated Diamonds North camp which has been completely restored).  
**The new Churchill Diamond camp will consist of up to;**  
**Four-twelve 14' x 16' wooden/Weatherhaven sleep tents**  
**One 32' x 14' kitchen tent**  
**One 14' x 16" core shack**  
**Two 14' x 16' drys**  
**One 8' x 10' first aid tent**  
**One 28' x 14' office tent**  
**Three outhouses plus Pecto facilities for winter/spring use**  
**One generator shack**  
**Two heli-pads**  
**One incinerator**  
**One 12' x 14' storage shack**  
**One fuel cache with Spill Kit per camp site, fuel cache and drill site**  
  
**The footprint of the proposed camp/airstrip is approximately 2 hectares.**  
  
**Water source for the camp will be the small lake located adjacent to camp (see pictures and map). Either a lakeshore-based pump-house with ½ HP electrical pump (1.25" suction & .75" discharge) directly drawing water and pressuring the plumbing system or a gas-engine pump intermittently used to fill an indoor water tank (from which the plumbing is subsequently pressurised) will be utilized for domestic water.**  
  
**A 600 metre long ATV trail will be used to access the previously used airstrip from the camp.**
8. Provide history of the site if it has been used in the past.  
**This site was used previously from 2004 to 2012 by both BHP Billiton and Diamonds North Resources Ltd. Only a small organized pile of filled core boxes remain onsite. See pictures attached.**

## **CAMP LOCATION**

9. Please describe proposed camp location in relation to biogeographical and geomorphological features, and water bodies. **See maps and pictures attached.**  
**The main campsite being considered for the 2016 exploration program will be capable of housing up to 10-30 people and is situated on the eastern shore of the Nurraqsiuruik River at Latitude: 68° 07' 35" N, Longitude: 90° 04' 23"W. It is situated on sandy substrate and in close proximity to a small freshwater lake. The proposed campsite is situated on IOL land, Parcel PB 30/57A.**
10. How was the location of the camp selected? Was the site previously used? Was assistance from the Regional Inuit Association Land Manager sought? Include maps and/or aerial photographs.

Camp selection was made based on the fact it had been used in the past , has excellent water supply, proximity to an airstrip and to the community of Kugaaruk and is basically centered on the present day claim block. It is also not located in areas of historical or cultural significance and is not in an area of main harvesting activities. The site was used in the past from 2004 to 2012 by both BHP Billiton and Diamonds North Resources Ltd. Pictures and maps attached to this application.

11. Is the camp or any aspect of the project located on:  
Camp is only proposed for 2016 onward. 2015 work will be conducted from Kugaaruk.

<input checked="" type="checkbox"/>	<input type="checkbox"/> Crown Lands	Permit Number (s)/Expiry Date: <b>Pending</b> _____
<input type="checkbox"/>	<input type="checkbox"/> Commissioners Lands	Permit Number (s)/Expiry Date: _____
<input checked="" type="checkbox"/>	<input type="checkbox"/> Inuit Owned Lands	Permit Number (s)/Expiry Date: <b>Pending</b>

12. Closest Communities (direction and distance in km):  
Camp is located 46 kilometres to the south-southwest of Kugaaruk, NU.

13. Has the proponent notified and consulted the nearby communities and potentially interested parties about the proposed work?  
During the staking phase of the operation (2014) various stakeholders in Kugaaruk were notified that Churchill Diamond Corporation was planning work and erecting a camp in this area. These stakeholders included community members, the Hamlet, aircraft suppliers, wildlife officers, the Co-op, the regional KIA office and the Community Benefits Committee. Churchill Diamond has not conducted any public meetings as yet but is planning one in the spring of 2015 prior to any fieldwork. A plain language summary of the proposed work has been produced, translated into Slavics and submitted for distribution. **Update; A community presentation was undertaken on June 1<sup>st</sup>, 2015 with no objections to the proposed program.**

14. Will the project have impacts on traditional water use areas used by the nearby communities?  
Will the project have impacts on local fish and wildlife habitats?  
No impacts to traditional water use areas or fish and wildlife habitats are expected as the work programs are subject to various terms and conditions that mitigate against such impact.

## PURPOSE OF THE CAMP

15. ☒ Mining (includes exploration drilling)  
☐ Tourism (hunting, fishing, wildlife observation, adventure/expedition, etc.)  
(Omit questions # 16 to 21)  
☐ Other \_\_\_\_\_

16. Activities (check all applicable)

<input checked="" type="checkbox"/>	<input type="checkbox"/> Preliminary site visit
<input checked="" type="checkbox"/>	<input type="checkbox"/> Prospecting
<input checked="" type="checkbox"/>	<input type="checkbox"/> Geological mapping
<input checked="" type="checkbox"/>	<input type="checkbox"/> Geophysical survey
<input checked="" type="checkbox"/>	<input type="checkbox"/> Diamond drilling
<input checked="" type="checkbox"/>	<input type="checkbox"/> Reverse circulation drilling
<input type="checkbox"/>	<input type="checkbox"/> Evaluation Drilling/Bulk Sampling (also complete separate questionnaire)
<input type="checkbox"/>	<input type="checkbox"/> Other: _____

17. Type of deposit (exploration focus):

- ☐ Lead Zinc  
☒ Diamond  
☐ Gold  
☐ Uranium  
☐ Other: \_\_\_\_\_

## DRILLING INFORMATION

18. Drilling Activities

- ☒ Land Based drilling  
☒ Drilling on ice

19. Describe what will be done with drill cuttings?

**The total estimated surface disturbance for all of the drill sites (approximately 30 for each year of the permit) is estimated to be a maximum of 0.3 ha/year. The small quantities of benign drill cuttings (0.14 m<sup>3</sup>/ 100 m drilled) generated at each drill site will be deposited in natural depressions or sumps and will affect small areas of sparsely vegetated tundra within the footprint of the disturbed area at each drill site. Sumps will be located no closer than 31 metres from the normal high water mark of any water body. Cuttings from on-ice drilling will be moved to shore and deposited in sumps or natural depressions no closer than 31 metres from the normal high water mark of any water body with the use of a Poly-drill system.**

20. Describe what will be done with drill water?

**Most of the drill water will be recycled or lost through the fractures in the rock at the drilling face. Cuttings and sludges will be stored in sumps as above whereby particulate matter can settle out or be filtered as necessary to prevent transport into any water body.**

21. List the brand names and constituents of the drill additives to be used? Includes MSDS sheets and provide confirmation that the additives are non-toxic and biodegradable.

**Biodegradeable and environmentally friendly drill muds/polymers will be used and calcium chloride may be utilized for permafrost conditions.  
See MSDS sheets in Appendix III of the attached Fuel Spill Contingency Plan.**

22. Will any core testing be done on site? Describe.

**No.**

## SPILL CONTINGENCY PLANNING

23. The proponent is required to have a site specific Spill Contingency Plan prepared and submitted with the application This Plan should be prepared in accordance with the *NWT Environmental Protection Act, Spill Contingency Planning and Reporting Regulations, July 22, 1998* and *A Guide to the Spill Contingency Planning and Reporting Regulations, June 2002*. Please include for review.

**Attached.**

24. How many spill kits will be on site and where will they be located?

**At least one spill kit at the camp, each drill site and each fuel cache.**

25. Please describe the types, quantities, and method of storage of fuel and chemicals on site, and provide MSDS sheets.

**Heating Oil: 100 – 205 L drums, 20,500 L total (cached 2016 only)**

**Diesel: 100 205 L drums, 20,500 L total (cached for both 2015 and 2016)**

**Propane: 20 100 lb cylinders, 2,000 lbs total (cached for both 2015 and 2016)**

**Helicopter Jet B fuel: 200 205 L drums 41,000 L (cached 2016 only)**

**Gas: 5 – 205 L drums, 1,025 L total (cached 2016 only)**

**All fuel caches to have spill kits supplied and placed no closer than 31 metres from any high water mark on sandy substrate. At least one empty container of equal or greater quantity of the fullest fuel container will be placed at each cache in case of the necessity to transfer fuel. Location of fuel caches approximate at this time. Only 4-5 drums of fuel will be located at each drill site while the rig is operating. Fuel will be transported to the main fuel caches by Twin Otter aircraft/helicopter and to more specific sites by helicopter.**

**Propane cylinders will be stored upright in the appropriate storage areas. Opened diesel drums will also be stored upright or in barrel cradles in the case of heating fuel utilizing mini Insta-berms. Full unopened diesel and Helicopter Jet A fuel will be stored on their side in the designated fuel cache on sandy substrate with bungs at 3 and 9 o'clock. Caches will be marked with pickets if left over the winter months.**

**Chemicals to be stored within the camp itself within a hard-sided and floored tool shed. Refer to the MSDS sheets attached for types and quantities and uses of hazardous materials used in diamond drilling. Storage of these substances will be with the main fuel cache within "Insta-berms" or within the "drillers dry" tent and tool shed, both of which are located in camp. Only limited amounts of these materials will be transported to the drill site and will be removed at the end of each drill hole. Materials to be transported to site by Twin otter and/or helicopter.**

**See MSDS sheets in Appendix III of the attached Fuel Spill Contingency Plan.**

## **WATER SUPPLY AND TREATMENT**

26. Describe the location of water sources.

**Water for domestic use at the camp will be drawn on an as needed basis from the small lake beside camp that has been used in the past and shown on the attached map/pictures.**

**Water for drilling purposes will be drawn from appropriately identified lakes near the drill site. Exact drill collar locations not known at this time.**

27. Estimated water use (in cubic metres/day):

☒ Domestic Use: <5 m3/day

Water Source: Lake beside

camp

☒ Drilling: <30-40m3/day

Water Source: Lakes close to drill sites

☐ Other: \_\_\_\_\_ Water Source: \_\_\_\_\_

**See pictures and maps attached.**

28. Describe water intake for camp operations? Is the water intake equipped with a mesh screen to prevent entrapment of fish? (see *DFO 1995, Freshwater Intake End-of-Pipe Fish Screen Guideline*) Describe:

**Water source for the 2016 proposed camp will be the small lake located adjacent to the old camp site (see pictures and map). Either a lakeshore-based pump-house with ½ HP electrical pump (1.25" suction & .75" discharge) directly drawing water and pressuring the plumbing system or a**

gas-engine pump intermittently used to fill an indoor water tank (from which the plumbing is subsequently pressurized) will be utilized.

All water intakes will be equipped with a screen with an appropriate mesh size to ensure no entrapment of fish as per DFO's 1995 Freshwater Intake End-of-Pipe Fish Screen Guidelines.

29. Will drinking water quality be monitored? What parameters will be analyzed and at what frequency?

**Drinking water will be tested at the beginning and end of each field season at the 2016 camp site. Samples will be sent to Taiga laboratories in Yellowknife for analysis. Churchill Diamond will consult with Taiga as to the parameters to be tested.**

30. Will drinking water be treated? How?

**Drinking water will be treated using sediment filter and UV treatment. Any other treatment required will be conducted as per instructions from the laboratory.**

31. Will water be stored on site?

**A 200 gallon indoor water tank (from which the plumbing is subsequently pressurized) will be utilized.**

## **WASTE TREATMENT AND DISPOSAL**

32. Describe the characteristics, quantities, treatment and disposal methods for:

**X** ☐ Camp Sewage (blackwater)

**Latrine pits using bacterial reducing agent or chloride of lime. All pits to be over 31 m from water and backfilled when finished. If needed the proposed camp will have Pacto toilets installed. Camp manager to monitor volume of blackwater.**

---

**X** ☐ Camp Greywater

**Kitchen and dry greywater will be gravity fed or pumped to a natural depression or a properly constructed sump capable of holding the volume of greywater created. All pits to be over 31 m from water and backfilled when finished. Camp manager to monitor volume of greywater.**

---

**X** ☐ Solid Waste

**Burnable solid waste will be burnt in a vented base fuel fed burning barrel/incinerator; the ashes will be barreled and transported to an approved disposal site in Kugaaruk or Yellowknife.**

**All non-burnable garbage or debris will be stockpiled at camp (2016) and flown to an approved disposal facility located in Yellowknife or Kugaaruk..**

---

☒ ☐ Bulky Items/Scrap Metal

All non-burnable garbage or debris will be stockpiled at camp and flown to an approved disposal facility located in Yellowknife or Kugaaruk.

---

☒ ☐ Waste Oil/Hazardous Waste

All waste oil and hazardous wastes will be collected and properly stored at camp or in town until such time that it can be transported to an approved disposal/recycling site in Yellowknife or Churchill.

---

☒ ☐ Empty Barrels/Fuel Drums

All empty drums will be collected and properly stored at camp or in town until such time that they can be transported to an approved disposal/recycling site in Yellowknife or Churchill.

---

☐ Other:

---

- 
33. Please describe incineration system if used on site. What types of wastes will be incinerated?  
**Burnable solid waste will be burnt in a vented base fuel fed incinerator; the ashes will be barreled and transported to an approved disposal site in Kugaaruk or Yellowknife.**
34. Where and how will non-combustible waste be disposed of? If in a municipality in Nunavut, has authorization been granted?  
**Flown to an approved disposal facility located in Yellowknife or Churchill.**
35. Describe location (relative to water bodies and camp facilities) dimensions and volume, and freeboard for all sumps (if applicable).  
**Sumps preferably in natural cistern or excavation. Volume to be capable of retaining all turbid drill fluids not recycled. Camp sumps to be close to kitchen and ablution tents to allow gravity drainage to them but greater than 31 meters from water bodies.**
36. Will leachate monitoring be done? What parameters will be sampled and analyzed, and at what frequency?  
**No leachate anticipated.**

## OPERATION AND MAINTENANCE

37. Have the water supply and waste treatment and disposal methods been used and proven in cold climate? What known O&M problems may occur? What contingency plans are in place?

The methods proposed have been extensively and successfully used over a number of years in NWT and Nunavut. They are standard to diamond drill exploration and the camps that support it.

## **ABANDONMENT AND RESTORATION**

38. Provide a detailed description of progressive and final abandonment and restoration activities at the site.

**Churchill Diamond Corporation maintains a progressive reclamation policy which effectively restores, as near as possible, any disturbance at any site to its original state before operations begin at the next site. This includes the removal of all garbage, fuel drums and equipment. All constructed sumps will also be backfilled. Before and after pictures of each site will be taken and made available for the public record.**

**All incinerator residue, non-combustible garbage and empty drums will be backhauled to Kugaaruk or Yellowknife where they will be disposed of in an approved facility.**

**Churchill Diamond's detailed Restoration Procedures are described in detail in the attached A & R Plan.**

## **BASELINE DATA**

39. Has or will any baseline information be collected as part of this project? Provide bibliography.

- ☒ Physical Environment (Landscape and Terrain, Air, Water, etc.)
- ☒ Biological Environment (Vegetation, Wildlife, Birds, Fish and Other Aquatic Organisms, etc.)
- ☒ Socio-Economic Environment (Archaeology, Land and Resources Use, Demographics, Social and Culture Patterns, etc.)
- ☐ Other: \_\_\_\_\_

**Aspects of the physical and biological environment will be documented as a portion of the surface mapping and prospecting exercises carried out as part of the program. Wildlife sightings and movements will be documented by ground crews and pilots.**

**Any archaeological sites encountered will not be disturbed. If a site is found during operations, work in that vicinity will stop, a 31 metre buffer around the area will be established, the site will be photographed and GPS coordinates will be recorded. This information will then be reported to the Prince of Wales Northern Heritage Centre.**

**Water tests of lakes upon which ice based drilling will occur and lakes used for domestic water will be collected and provided to the NWB in the Annual Report.**

## **REGULATORY INFORMATION**

40. At a minimum, you should ensure you have a copy of and consult the documents below for compliance with existing regulatory requirements:



- ✓ ARTICLE 13 – *NCLA -Nunavut Land Claims Agreement*
- ✓ NWNSRTA – *The Nunavut Waters and Nunavut Surface Rights Tribunal Act, 2002*
- ✓ *Northwest Territories Waters Regulations, 1993*
- ✓ NWB - Water Licensing in Nunavut - Interim Procedures and Information Guide for Applicants
- ✓ NWB - Interim Rules of Practice and Procedure for Public Hearings
- ✓ RWED – *Environmental Protection Act, R-068-93- Spill Contingency Planning and Reporting Regulations, 1993*
- ✓ RWED A Guide to the Spill Contingency Planning and Reporting Regulations, 2002
- ✓ NWTWB - Guidelines for Contingency Planning
- ✓ *Canadian Environmental Protection Act, 1999 (CEPA)*
- ✓ *Fisheries Act, RS 1985 - s.34, 35, 36 and 37*
- ✓ DFO - Freshwater Intake End of Pipe Fish Screen Guideline
- ✓ NWTWB - Guidelines for the Discharge of Treated Municipal Wastewater in the NWT
- ✓ Canadian Council for Ministers of the Environment (CCME); *Canadian Drinking Water Quality Guidelines, 1987*
- ✓ Public Health Act - Camp Sanitation Regulations
- ✓ Public Health Act - Water Supply Regulations
- ✓ *Territorial Lands Act and Territorial Land Use Regulations; Updated 2000*