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NUNAVUT WATER BOARD
NUNAVUT IMALIRIYIN KATIMAYINGI

EXPLORATION/ REMOTE CAMP SUPPLEMENTARY QUESTIONNAIRE

Applicant: BHP Diamonds Inc. c/o BHP World Exploration Inc Licence No: _____

(For NWB Use Only) NWB2NAD

ADMINISTRATIVE INFORMATION

1. Environment Manager: Brent Carr Tel: (250) 860-4616 Fax: (250) 860-7242_ E-mail:_carr.brent.ba@bhp.com_____

2. Project Manager: Frank Bunting_ Tel: (604) 632-1474 Fax: (604) 683-4125_E-mail:bunting.frank.wf@bhp.com
3. Does the applicant hold the necessary property rights? **YES**

4. Is the applicant an 'operator' for another company (i.e., the holder of the property rights)? **NO** If so, please provide letter of authorization.

5. Duration of the Project
   [x] Annual
   [ ] Multi Year:
   If Multi-Year indicate proposed schedule of on site activities
   Start: _____ Completion:_____

CAMP CLASSIFICATION

6. Type of Camp
   [ ] Mobile (self-propelled)
   [x] Temporary
   [ ] Seasonally Occupied: _____
   [ ] Permanent
   [ ] Other:_____

7. What are the design population of the camp and the maximum population expected on site at one time? What will be the fluctuations in personnel?

May accommodate up to 24 with visitors and itinerant contractors. Over two thirds of the time the population will not exceed 18 people.

8. Provide history of the site if it has been used in the past.

NA

CAMP LOCATION

9. Please describe proposed camp location in relation to biogeographical and geomorphological features, and water bodies.

The site is located on Nadluardjuk lake.. It appears to be a level gravel shoreline of considerable size but was picked on the basis of stereo air photos since no one has yet examined it in the field.

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 selected using air photos. To our knowledge, the site has never been used before. See map attached to original application

11. Is the camp or any aspect of the project located on:

[x] Crown Lands Permit Number (s)/Expiry Date: _pending in the next week
[ ] Commissioners Lands Permit Number (s)/Expiry Date: _____
[x] Inuit Owned Lands Permit Number (s)/Expiry Date: _Class 1_pending from QIA

12. Closest Communities (distance in km):

Pangnirtung – 400 km away

13. Has the proponent notified and consulted the nearby communities and potentially interested parties about the proposed work?

DND, DIAND, QIA, NTI have all been notified. Both BHP and Falconbridge are also invovled in the Nunavut sponsored Mineral Exploration Field Assistants Course that will place 2 Inuit students in the camp at working wages as part of a field practicum.

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?

The brevity and small scale of the programme is unlikely to have any effect on the area.

PURPOSE OF THE CAMP

15. x Mining
○ Tourism (hunting, fishing, wildlife observation, adventure/expedition, etc.) (Omit questions # 16 to 21)
○Other _____ (Omit questions # 16 to 22)

16. ○ Preliminary site visit
x Prospecting
x Geological mapping
x Geophysical survey

- ○ Diamond drilling
- ○ Reverse circulation drilling
- ○ Evaluation Drilling/Bulk Sampling (also complete separate questionnaire)
- ○ Other: _____

17. Type of deposit:

- x Lead Zinc
- ○ Diamond
- ○ Gold
- ○ Uranium
- ○ Other: _sliver, base metals_____

DRILLING INFORMATION

18. Drilling Activities NA

- ○ Land Based drilling
- ○ Drilling on ice

19. Describe what will be done with drill cuttings?

20. Describe what will be done with drill water?

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.

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

SPILL CONTINGENCY PLANNING

23. Does the proponent have a spill contingency plan in place? Please include for review.
See Attachment

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

1 - spill kit in camp 2 - spill kits at the West Baffin (Foxe B) airstrip

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

All fuel in 205 litre drums
6 – diesel
8 – reg gas
12 – Av gas
100 – jet B

WATER SUPPLY AND TREATMENT

26. Describe the location of water sources.

Nadluardjuk Lake

27. Estimated demand (in L/day * person):

- ○ Domestic Use: 650 litres Water Source: Nadluardjuk Lake
- ○ Drilling Units: _____ Water Source: _____
- ○ Other: _____ Water Source: _____

28. Describe water intake for camp operations? Is the water intake equipped with a mesh screen to prevent entrapment of fish? Describe:

Water pump will be a small WB 15 Honda centrifugal pump used to fill a water drum in the camp. Intake is standard 1½" suction. The footvalve is a course screen of about ¼ inch. Similar arrangements have never previously jeopardised fish.

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

A quick-test total colliform (presence or absence) will be conducted twice during the operation.

30. Will drinking water be treated? How?

The need is not anticipated but if necessary, chlorine will be added.

31. Will water be stored on site?

2 – 205 litre drums will be used to store water in the camp and allow the use of a demand pump to pressurize the plumbing.

WASTE TREATMENT AND DISPOSAL

32. Describe the characteristics, quantities, treatment and disposal methods for:
    - ○ Camp Sewage (blackwater) *latrine pit treated with chloride of lime*
    - ○ Camp Greywater *passive sump*

○ Solid Waste

Burn if burnable –otherwise fly out

○ Bulky Items/Scrap Metal

Fly out

○ Waste Oil/Hazardous Waste

fly out

○ Empty Barrels/Fuel Drums

fly out

○ Other:

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33. Please describe incineration system if used on site. What types of wastes will be incinerated?

See attached

34. Where and how will non-combustible waste be disposed of ? If in a municipality in Nunavut, has authorization been granted?

This would include small amounts of metal food tins but would primarily be fuel drums that would be demobilised. We were not aware that permission is required to dispose of domestic waste in Iqaluit but this will certainly be done if required. Our inquiries regarding the removal of empty fuel drums from northern communities indicate that this is a serious problem for Nunavut in general and that even local businesses (including the Canada-Nunavut Geoscience Office) are currently at a loss as to how address it. Short of avoiding work initiatives in Nunavut, we're in similar straits and can only defer to such arrangements as are sure to evolve to assist this problem.

35. Describe location (relative to water bodies and camp facilities) dimensions and volume, and freeboard for sumps (if applicable).

Sumps would be as far from water sources as possible and at least 30 metres from same.

36. Will leachate monitoring be done? What parameters will be sampled and analyzed, and at what frequency?

No formal leachate testing is planned. The brevity and nature of the presence does not suggest problems of this sort.

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?

These systems are eminently simple and have proven themselves consistently in the past (even as far north as Devon Island). They are the standard for operations of this nature.

ABANDONMENT AND RESTORATION

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

The camp,garbage, and all fuel caches (including empties) will be demobilised to Iqaluit with the camp.

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:

In addition to the geological information which is the focus of the work, it is a matter of course to make note of (but not disturb) archaeological evidence and wildlife. These could not really be considered baseline studies but they are *used as referents for possible future work.*

REGULATORY INFORMATION

40. Do you have a copy of
    - x Article 13 - Nunavut Land Claims Agreement
    - x NWB - Water Licensing in Nunavut - Interim Procedures and Information Guide for Applicants
    - ○ NWB - Interim Rules of Practice and Procedure for Public Hearings
    - ○ NWTWB - Guidelines for the Discharge of Treated Municipal Wastewater in the NWT
    - ○ NWTWB - Guidelines for Contingency Planning
    - ○ DFO - Freshwater Intake End of Pipe Fish Screen Guideline
    - ○ Fisheries Act - s.35
    - ○ RWED - Environment Protection- Spill Contingency Regulations
    - ○ Canadian Drinking Water Quality Guidelines
    - ○ Public Health Act Camp Sanitation Regulations
    - ○ Public Health Act Water Supply Regulations
    - x Territorial Land Use Act and Regulations

You should consult the above document, guidelines, and legislation for compliance with existing regulatory requirements.
Can you reference web sites for us that would have the documents we lack?

Attachment 1

SPILL RESPONSE MEASURES FOR FUEL/PETROLEUM PRODUCTS

Identify the source of the leak or spill

Isolate or remove any potential ignition sources, if possible

Contain the spill or source, if possible

Contact the On-scene Coordinator and follow assessment/reporting flow sequence

Report the spill to the NWT 24-hour Spill Report Line

At the direction of the On-scene Coordinator, the Spill Response Team will initiate cleanup

The Operations Manager will request mutual spill response aid from external sources, if necessary

The following responses are available for fuel/petroleum product spills in different environmental media:

Spills on Land (gravel, rock, soil and vegetation)

- Trench or ditch to intercept or contain flow of fuel or petroleum products on land, where feasible (loose sand, gravel and surface layers of organic materials are amenable to trenching/ditching; trenching in rocky substrates is typically impractical and impossible)
- Construct a soil berm downslope of the spill. Use of synthetic, impervious sheeting can also be used to act as a barrier
- Where available, recover spills through manual or mechanical means including shovels, heavy equipment and pumps
- Absorb petroleum residue with synthetic sorbent pad materials
- Recover spilled and contaminated material, including soil and vegetation

- Transport contaminated material to approved disposal or recovery site. Equipment used will depend on the magnitude and location of the spill
- Where safe, disposal can be done through controlled in-situ combustion with the approval of government authorities and fire/safety consultants
- Land based disposal is only authorized with the approval of government authorities

Spills on Snow

- Trench or ditch to intercept or contain flow of fuel or petroleum products on snow, where feasible (ice, snow, loose sand, gravel and surface layers of organic materials are amenable to trenching/ditching; trenching in solid, frozen ground or rocky substrates is typically impractical and impossible
- Compact snow around the outside perimeter of the spill area
- Construct a dike or dam out of snow, either manually with shovels or with heavy equipment such as graders and dozers where available
- If feasible, use synthetic liners to provide an impervious barrier at the spill site
- Locate the low point of the spill area and clear channels in the snow, directed away from waterways, to allow non-absorbed material to flow into the low point
- Once collected in the low area, options include shovelling spilled material into containers, picking up with mobile heavy equipment; pumping liquids into tanker trucks or using vacuum truck to pick up material
- Where safe, disposal can be done through in-situ combustion with approval from government authorities
- Liquid oil wastes, oil contaminated snow and debris and oil residues left after controlled, in-situ burning will be picked up and disposed of a land disposal site approved by government authorities/fire and safety consultants
- Transport contaminated material to approved disposal site. Equipment used will depend on the magnitude and location of the spill

Spills on Ice

- Contain material spill using methods described above for snow, if feasible and/or mechanical recovery with heavy equipment
- Prevent fuel/petroleum products from penetrating ice and entering watercourses
- Remove contaminated material, including snow/ice as soon as possible
- Containment of fuel/petroleum products under ice surface is difficult given the ice thickness and winter conditions. However, if the materials get under ice, determine area where the fuel/petroleum product is located
- Drill holes through ice using ice auger to locate fuel/petroleum product
- Once detected, cut slots in the ice using chain saws and remove ice blocks
- Fuel/petroleum products collected in ice slots or holes can be picked via suction hoses connected to portable pump, vacuum truck or standby tanker. Care should be taken to prevent the end of the suction hose clogging up by snow, ice or debris
- Fuel/petroleum products that have collected in ice slots may be disposed of by in-situ burning if sufficient holes are drilled in ice. Once all the holes are drilled, the oil which collects in the holes may be ignited. Consult with fire/safety consultants and government authorities to obtain approval

Spills on Water

- Contain spills on open water immediately to restrict the size and extent of the spill
- Fuel/petroleum products, which float on water, may be contained through the use of booms, absorbent materials, skimming, and the erection of culverts
- Deploy containment booms to minimize spill area, although effectiveness of booms may be limited by wind, waves and other factors
- Use sorbent booms to slowly encircle and absorb spilled material. These absorbents are hydrophobic (absorb hydrocarbons and repel water)
- Once booms are secured, use skimmers to draw in hydrocarbons and minimal amounts of water. Skimmed material can be pumped through hoses to empty fuel tanks/drums
- Culverts permit water flow while capturing and collecting fuel along the surface with absorbent materials
- Chemical methods including dispersants, emulsion – treating agents and shoreline cleaning will be considered
- Use absorbent pads and similar materials to capture small spills/oily residue on water
- Tanker trucks that slip through ice into the water below will remain buoyant since the densities of fuel and petroleum products are less than water. Buoyancy will be maintained while pumping fuel from the truck to another vessel until the truck can be retrieved safely. Efforts will be made to pull out the truck as soon as possible.

Note:

1. In-situ combustion is a disposal method available for fuels and petroleum products.
   In-situ burning can be initiated by using a large size portable propane torch (tiger torch) to ignite the fuel/petroleum products. Highly flammable products such as gasoline or alcohol, or combustible material such as wood, may be used to promote ignition of the spilled product. The objective is to raise the temperature for sustained combustion of the spilled product.

   Precautions need to be taken to ensure safety of personnel. Also, spilled product should be confined to control burning. These include areas where the spilled material has pooled naturally or been contained via dikes, trenches, depressions or ice slots. Prior to any attempts at in-situ burning, consultation with experts and approval by government authorities are required.

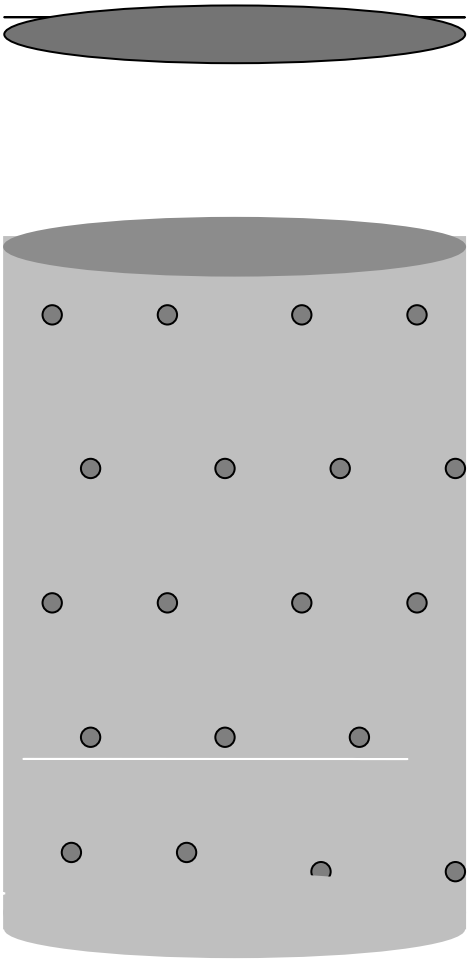
2. Chemical response methods are also available and may include the use of dispersants, Emulsions-treating agents, visco-elastic agents, herding agents, solidifiers, and shoreline cleaning agents.

3. Biological response methods include nutrient enrichment and natural microbe seeding

Attachment 2

200L OIL DRUM INCINERATOR

TOP OF DRUM REMOVED



CLEAR 3 METERS AROUND INCINERATOR

ATTACHMENT 3

Executive Summary

BHP is co-venturing a mineral prospecting camp with Falconbridge on the north shore of Nadluardjuk Lake in the central region of Baffin Island. Though the camp will be big enough to accomodate 24 people, the usual crew size will be 18. Each company will have a helicopter hired to allow access. The work invovles collecting rock samples and geological mapping. A minimum amount of gas and diesel fuel (for heating purposes and running small generators) will be kept at the camp. Helicopter fuel will be kept at the abandoned "Foxe B" DEW line site 4 km away. The work is expected to last about 2 - 3 weeks and to take place sometime between July 1st and August 15th.