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NUNAVUT WATER BOARD
NUNAVUT IMALIRIYIN KATIMAYINGI

EXPLORATION/ REMOTE CAMP SUPPLEMENTARY QUESTIONNAIRE

Applicant: Shirley Standafer-Pfister for De Beers Canada Exploration **Licence No:**

(For NWB Use Only)

ADMINISTRATIVE INFORMATION

1. Lands and Government Relations Manager: (see above) Tel: (867) 766-7356 Fax: (867) 766-7348
E-mail: shirley.standaferpfister@ca.debeersgroup.com Mobile : (867) 444-1239
2. Geological Project Manager: Peter Williamson Tel: (416) 645-1710 Fax: (416) 423-0081 E-mail: peter.williamson@ca.debeersgroup.com
3. Does the applicant hold the necessary property rights? Yes, through Mining Recorder, INAC, Iqaluit, NU.
4. Is the applicant an 'operator' for another company (i.e., the holder of the property rights)?
If so, please provide letter of authorisation. Claims are all held in the name of De Beers Canada Exploration Inc. and have been taken to lease.
5. Duration of the Project
[] Annual
[☒] Multi Year:
If Multi-Year indicate proposed schedule of on-site activities
Start: 24 April 2006 (use this wk. to set up camp) Completion: 01 October 2008
(with possible renewal or new licence thereafter, if required)

CAMP CLASSIFICATION

6. Type of Camp
[] Mobile (self-propelled)
[☒] Temporary
[☒] Seasonally Occupied: max. 6 weeks in 2006
[] 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?

Camp to be comprised of tents accommodating up to max. of 20 persons; for 4 weeks, population will be around 15.
Average occupation when both drilling + trenching under way = 18. Average fluctuation, 3-5 persons.

8. Provide history of the site if it has been used in the past.
(See "**Project Summary**" and "**Project Description**" documents.)

No camp has previously existed on the Kikerk/Knife Lake property. DBCE has explored the Kikerk area since the early 1990s, and conducted a drilling programme at Knife Lake in 2000, 2001 and 2004; 2000 and 2001 programmes were based out of DBCE's former Rockinghorse camp 86km SE and 2004 programme was based out of Kugluktuk, 140km NW.

CAMP LOCATION

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

The camp and 5 mineral claims/leases are situated within the Wopmay Orogen on the western margin of the Slave Province of the northwest Canadian Shield, and also characterised as lying in the Bear Slave Upland (Bostock, 1970), north of the tree line, an area broken by lakes and streams, whose shores are comprised of glacial and post-glacial deposits. Glaciofluvial deposits, although rare in the Kikerk Property, exist in the region dominantly as eskers (varying from sand-rich to boulder-rich material) and related kames, but also as outwash plains. A thin vegetative cover of dwarf birch, willow, grasses, lichen and moss provides forage for passing muskox and caribou.

The area is delimited at the compass points by the following waterbodies: Coronation Gulf, some 60km north, and Kikerk Lake (Kikkikitalik), approx. 20km north; the Tree River at the south and east, and crossing the small claimblock; and Inulik Lake due south.

The area is characterised by distinctive landform and sediment assemblages that radiate outwards from the Keewatin Ice Divide. Zone 4 (the area of interest) is characterised by extensive areas of nearly drift-free, ice-moulded bedrock with virtually no esker development (Shilts and Aylsworth, 1989). Eskers (none are present on the 5 claims) are generally small, sinuous ridges, parallel or sub-parallel with the indicated direction of ice movement. Approaching the Coronation Gulf coast, the northwesterly ice flow direction shifts to northerly.

The terrain is commonly marked by bedrock exposure; at the southeast of the property, rocks of the Archaean Yellowknife Supergroup, including autochthonous basement granites, gneisses and volcanic rocks are exposed. A thin (< 2m thick) sandy to silty glacial till, bouldery at surface, predominates.

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.

This was the only suitable campsite within the 5-claim area and was selected by visiting the area; shallow waters with prominent boulders predominate, reducing options for a camp location. There is no pre-existing camp. Although information will be supplied to the Kitikmeot Inuit Association in Kugluktuk, the exploration area itself is located on Crown land.

11. Is the camp or any aspect of the project located on:
- ☒ Crown Lands Permit Number (s)/Expiry Date: #N2003C0037 – 01 February 2007
- ☐ Commissioners Lands Permit Number (s)/Expiry Date: _____
- ☐ Inuit Owned Lands Permit Number (s)/Expiry Date: _____

12. Closest Communities (distance in km):
Kugluktuk, 140km northwest; Bathurst Inlet (Kinggaug), 220km east.

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

DBCE plans to continue to regularly visit Kugluktuk (the closest community) in connection with its programmes to discuss what is planned or has occurred, both with regulators and with community residents. The next meeting(s) likely will occur in winter 2006, at community and regulator convenience. The last meeting occurred in February 2004, the last year a programme was conducted. Parties seeking work, including service providers, are contacted and hired as appropriate. Individuals from Kugluktuk and Cambridge Bay have worked on the project in the past; there was no programme in 2005. Should the project expand, consultation will occur with other regional communities.

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 spring 2006 programme will consist in temporary presence on the land and temporary and minimal use of water in a remote area. There will be no interference with traditional Inuit use of water resources, and no impacts on local fish and wildlife habitat; DBCE recognises and supports Inuit use of their own lands, for their own purposes. Neither sport fishing nor hunting will occur from the DBCE camp, or at worksites, and ungulates have never been observed to calve in the area, as the claims are distant from caribou and muskox calving grounds. If large aggregations of muskox or caribou were to move through a site where drilling or trenching was to commence, or was in progress, activity would not proceed or would cease until the animals which were in close proximity had progressed onward. Personnel and contractors are trained seasonally in DBCE's Environmental Awareness course, and are encouraged to complete a DBCE Wildlife Sighting Form (*Appendix 5* of the Application Package) when wildlife are observed during programmes.

PURPOSE OF THE CAMP

15. ☐ Mining
☐ Tourism (hunting, fishing, wildlife observation, adventure/expedition, etc.)
(Omit questions # 16 to 21)
☐ Other _____ (Omit questions # 16 to 22)
16. ☐ Preliminary site visit
☐ ☒ Prospecting
☐ Geological mapping
☐ ☒ Geophysical survey
☐ ☒ Diamond drilling (spring 2006; possible also in 2007)
☐ ☒ Reverse-circulation drilling/bulk sampling (possible in 2007)
☐ ☒ Other: Mechanical trenching on land (spring 2006)
17. Type of deposit:
☐ 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?

Drill cuttings will report to a land-based sump, the requisite distance from a waterbody. Any inadvertent spillage of cuttings will be scraped/shovelled and/or heat-steamed and will report to a land-based sump.

20. Describe what will be done with drill water?

80% or more of drillwater is recirculated; the small amount of sedimented water not recycled will report to a land-based sump, the requisite distance from a waterbody.

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

A complete list of drilling additives which could conceivably be used by the possible 2006 contractor, Boart Longyear, in conducting a drill programme in Nunavut, are attached with the Application Package as a CD-ROM. Should a different contractor be used, or different additives contemplated, new information would be provided to the NWB in the form of a REVISED CD-ROM. Given that both the contractor and DBCE have a commitment to environmental protection, the additives are benign (as per MSDS sheets), and, should an additive be required, the safest additive for the job at hand would be employed. In accordance with the DBCE Environmental Policy (*cf. Environmental Management System CD-Rom, APPENDIX 1C*), chemicals and additives, no matter how benign or inert, are handled out-of-doors or in well-ventilated areas, with proper masks (to prevent dust inhalation) and goggles (to obviate eye irritation). Skin irritation would rarely be a problem, due to wearing of gloves and coveralls by workers. Any spills of materials would be cleaned up promptly, as per the guidelines provided with each product, and as per the Environmental Policy and Kikerk/Knife Lake Spill Contingency Plan (*accompanying*). As part of the DBCE EMS, drilling contractors are required to record details of any additive used.

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

Core flown out; no testing on site.

SPILL CONTINGENCY PLANNING

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

Yes. "Spill Contingency Plan – Kikerk/Knife Lake Project" is included with this Application.

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

At least one spill kit will be present in camp at all times; absorbents also are present where fuel is transferred and under stationary equipment. One spill kit will be present at each drillsite, and additional absorbent padding also used where fuel is transferred and placed in drip pans under stationary equipment. A separate spill kit will be deployed to the fuel cache/helicopter area and to the heavy-equipment shelter (near trench worksite). In addition, DBCE complies with all WCB regulations, wherein supervisors are required to have WCB Supervisory Certificates and each driller or helper is First-Aid and WHMIS certified. A DBCE supervisor and drilling supervisors are trained in Transport of Dangerous Goods; all site personnel will be trained in spill- and fire-response.

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

Diesel fuel for heating, running generators/pumps and garbage incineration, diesel for drillsites (including pumps, generators, etc.), petrol (unleaded gas) for snowmachines and gas-powered water pumps, Jet-B for aviation requirements, propane for cooking, laundry and at drillsite; oils, greases and fluids in gen-shed or in drillsite shed, as appropriate; fuel for excavator used for trenching, compressed gases for welding at drillsite. (*See "Project Description" with Application Package.*) Household cleaners are stored in kitchen and dry tents, and in limited quantity in the latrine; oils, greases, lubricants are kept in generator shed and in drillshack. (*MSDS Sheets are attached as a CD-ROM*). Oxygen and acetylene for welding at drillsites are kept chained in standard wire racks; propane for the kitchen and dry also are secured. All fuels are stored away from water, with empties segregated from full containers, and empty fuel containers regularly backhauled. Anticipated requirements: 200 drums diesel, 100 drums Jet-B, 6 drums petrol, 140 containers of lubricants (varying sizes, but not exceeding 500L), 25 propane, 4 acetylene and 3 oxygen (medical and welding).

WATER SUPPLY AND TREATMENT

26. Describe the location of water sources.

Water for camp will be pumped from Tree River (*cf. attached MAP 1*). Water for drills will be pumped from Knife Lake (*cf. attached MAP 2a*). Potable water for camp will be stored in a manufactured tank in the heated dry; household chlorine bleach is the only treatment required.

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

- ☐ Domestic Use: 250L (0.25m³/person/day – 2006) Water Source: Tree River
- ☐ Drilling Units: 10 500L (10.5m³/drill/day – 2006) Water Source: Knife Lake
- ☐ Other: _____ Water Source: _____

* Total maximum camp use of 10m³/day (from Tree River) for 2006-2007. Total maximum of 50m³/day (from Knife Lake) for core drilling 2006-2007, excluding RC large-diameter (LDDH) drilling. Total requested for 2006 = same as for previous licence, of 60m³/day. Should an LDDH programme be contemplated for 2007, use of water could increase; request would be made to AMEND the licence volume (e.g., for an extra 50m³/day or for a yearly allotment) to accommodate the extra but short-term water requirements of LDDH drilling.

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

Waterline suction-hose will be equipped with a mesh grate to obviate entrainment of fish, as per DFO guideline.

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

Potable water pumped into the holding tank is monitored daily. Water quality of Tree River at camp location is pristine, and testing of the water by an accredited lab for bacteriological parameters would be undertaken should the camp size and exploration activities increase. Addition of chlorine bleach to the potable stored water will be the only treatment measure (testing via Hach Colorimeter Test Kit). Should the camp be re-established and increase in size in future, additional treatment, such as ultraviolet, would be considered. Water-quality samples will be collected in 2006 and analysed for standard total and dissolved metals and routines (physical parameters of TSS and pH).

30. Will drinking water be treated? How?

No treatment of drinking water required at this stage, except with the addition of chlorine.

31. Will water be stored on site?

Water will be stored in a holding tank in the heated dry tent.

WASTE TREATMENT AND DISPOSAL

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

- ☐ Camp Sewage (blackwater) – Self-sealing Pacto toilet bags are either burned or incinerated daily. If privy pits are used, quick-lime would be applied, and the hole filled.

(Please refer to accompanying Application).

- ☐ Camp Greywater -- Potable water used for cooking and washing would be piped via heated poly-line to a covered sump; no treatment other than possible addition of quick-lime.

(Please refer to accompanying Application).

- ☐ Solid Waste – Garbage collected in standard covered receptacles; either burned or incinerated daily. Ash collected in empty drums for disposal off site.

(Please refer to accompanying Application).

- **Bulky Items/Scrap Metal** – Bulky scrap items which can be recycled are reused; if unusable, metals are packaged and flown out on backhauls for disposal in Yellowknife. Wood scrap is burned.

(Please refer to accompanying Application).

- **Waste Oil/Hazardous Waste** – Very small amount of waste oil/fuel, about 4 drums, will be stored in labelled drum(s). Household cleaners, oils, lubricants stored and disposed of in original containers. Waste oil/filters/oily rags, and waste fuels are segregated in labelled containers and shipped out for disposal off-site.

(Please refer to accompanying Application).

- **Empty Barrels/Fuel Drums** – Other than drums kept for waste fuel/oil, and as refuge receptacles (e.g., for disposal of soaked absorbent padding), all empties are returned to source on backhauls.

- **Other:** N/A.

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

A 205L burn barrel could be used to burn combustible garbage; purchase of a CSA environmentally-rated incinerator (such as used in our former Rockinghorse camp) is under consideration, should project economics warrant. Typical wastes burned would be Pacto bags, kitchen waste, cardboard and small wood scrap.

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

Non-combustibles will be flown out by regular fixed-wing charter and returned to Yellowknife for proper disposal.

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

DBCE locates all sumps the requisite distance from waterbodies, whether greywater sumps or drill sumps. Sumps are dug to allow overcapacity with respect to input. The covered greywater sump in camp likely will have dimensions of 1m x 1m x 1.5m, which should prove more than adequate for the 2006 season. Freeboard of 30cm would be sufficient, as sumps are monitored daily, and, if a sump is seen to be filling up, sumpwater can be pumped into refuge drums until a new sump can be dug.

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

N/A.

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?

Yes. Camp water supply is pumped into a holding tank in a heated structure, and the tank is drained prior to camp closure. Poly-line can be drained, dismantled and rolled up when not in use, or rolled up, or stacked if frozen, and thawed in a heated structure. Should heat-tracing fail, utilidor box containing the potable waterline and greywater line can be opened and any frozen sections changed out and thawed. Waterlines at drillsites can be heat-steamed to thaw. All methods used for water supply and disposal are climate-appropriate. Waste treatment not applicable; waste disposal by burning or transport offsite is climate appropriate for remote sites. Power failure is obviated by having two generators on site; for pumping, there is similarly a backup pump on site. Our expeditors, G&G Expediting of Yellowknife, or a local expeditor, JMS of Kugluktuk, will be on 24-hour call, should materials be required which are not on site; DBCE also maintains a charter arrangement with Air Tindi, so emergency transport for parts, etc., is guaranteed. It is intended to dismantle and remove the camp at the end of the 2006 programme.

ABANDONMENT AND RESTORATION

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

(Please refer to attached "Project Description" and to "Abandonment and Restoration Plan" (APPENDIX 8)). .
It is anticipated that all camp and drillsite facilities will be regularly inspected by project personnel via a formal weekly inspection, and at least once by internal auditors and regional Regulators.

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:

(Water-quality baseline activity commenced in 2004; in 2006, samples will be collected prior to, during and after drilling on Knife Lake in association with the planned programme. Archaeological baseline data collection commenced several years ago.. (SEE BIBLIOGRAPHY LIST IN NWB APPLICATION FORM).

REGULATORY INFORMATION

40. Do you have a copy of
- ☐ ☒ Article 13 - Nunavut Land Claims Agreement
 - ☐ ☒ 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
 - ☐ ☒ Territorial Land Use Act and Regulations

You should consult the above document, guidelines, and legislation for compliance with existing regulatory requirements.