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NUNAVUT WATER BOARD
NUNAVUT IMALIRIYIN KATIMAYINGI
OFFICE DES EAUX DU NUNAVUT

EXPLORATION/ REMOTE CAMP SUPPLEMENTARY QUESTIONNAIRE

Applicant: Peregrine Diamonds Ltd. **Licence No:** Currently 2BE-CHI1218__
(For NWB Use Only)

ADMINISTRATIVE INFORMATION

1. Land Manager: David Willis Tel: (604) 608-4524 Fax: (604) 408-8881 E-mail: dave@pdiam.com

2. Project Manager: Alan O'Connor Tel: (604) 608-4525 Fax: (604) 408-8881 E-mail: alan@pdiam.com

3. Does the applicant hold the necessary property rights? 266 Mineral Claims and a surface land use permit from INAC (N2012C0024)

4. Is the applicant an 'operator' for another company (i.e., the holder of the property rights)? If so, please provide letter of authorization. Peregrine Diamonds Ltd. is Holder/Operator.

5. Duration of the Project

   ☐ One year or less Start and completion dates: _____
   X Multi Year: (seasonal)

   If Multi-Year indicate proposed schedule of on site activities
   Started: 2008 Completion: 2023 (Estimate)

CAMP CLASSIFICATION

6. Type of Camp

   ☐ Mobile (self-propelled)
   ☐ Temporary
   X Seasonally Occupied: Winter/Summer
   ☐ Permanent
   ☐ Other:_____

7. What is the design, maximum and expected average population of the camp?

This is a renewal application – no changes are requested.

Peregrine has authorization for four field camps. The Discovery Camp (est. 2008, max pop. 40), the Sunrise Camp (est. 2009, max pop. 24) the Aurora Camp (est. 2011, max. pop 40) and the CH-6

Camp (est. 2013, max. pop. 30). The primary camp for operations is the Discovery Camp. The other three camps are used intermittently. All camps are comprised of temporary non-permanent structures. The main camp structures are Weather-Haven tents, wood walled tents with canvas covers and a Quonset at Discovery camp.

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

See above…..

CAMP LOCATION

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

This is a renewal application, no changes are requested.

Please refer to **Schedule 1 – Critical Locations & Coordinates**

Discovery Camp

The Discovery Camp was established in 2008. The site was selected after extensive air photo analysis, topographic map analysis and a field reconnaissance. The Discovery Camp site is the only location in the Chidliak Project Area that has a natural landing area capable of handling fixed wing aircraft on wheels during the summer months. The camp is located on glaciofluvial sediments next to a meltwater drainage.

Sunrise Camp

The Sunrise Camp was established in 2009. The site was selected through satellite imagery. The location was selected because it is adjacent to an eight (8) kilometer long lake upon which fixed wing aircraft can land in the winter. This lake is the closest lake to the main Discovery Camp. The camp is situated upon boulder glacial lag.

Aurora Camp

The Aurora Camp was established in 2011. The site was selected through satellite imagery and field reconnaissance. The location was selected because it is adjacent to a three (3) kilometer long lake upon which fixed wing aircraft can land in the winter and the camp is also close to geophysical anomalies which required exploratory drilling. The geophysical anomalies were too far away from Discovery Camp for logistics and safety support so it was decided to establish the Aurora Camp. Aurora Camp is approximately 41 kilometers northwest of the Discovery Camp. The camp is established on hummocky glaciofluvial sediments and bedrock. Some areas have a very thin veneer of glacial till.

CH-6 Camp

The CH-6 Camp was established in 2013. The site was selected through satellite imagery and field reconnaissance. The location was selected due to its proximity to the CH-6 kimberlite which is the subject of drilling and trenching campaigns. The Camp is situated upon weathered bedrock with a thin veneer of glacial till. There are no local potable water sources and water must be hauled to the camp. CH-6 Camp has only been occupied in the winter. The closest water bodies where potable and camp water can be drawn are three to five kilometers away. Since 2013 the camp has been used as an emergency safety refuge during summer drill programs at the CH6 kimberlite.

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.

See above…

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

X Crown Lands Permit Number (s)/Expiry Date: N2012C0024 June 16, 2018
☐ Commissioners Lands Permit Number (s)/Expiry Date: _____
☐ Inuit Owned Lands Permit Number (s)/Expiry Date: _____

12. Closest Communities (direction and distance in km):

Pangnirtung - 200 kilometers north
Iqaluit – 125 kilometers southwest

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

Yes, consultation commenced in 2008. See **Schedule 7 – Consultation Catalogue**

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, it will not. The project uses a very small amount of water from the total volume of water available in the area.

PURPOSE OF THE CAMP

15.
- X Mining (includes exploration drilling) Exploration
- ☐ Tourism (hunting, fishing, wildlife observation, adventure/expedition, etc.) (Omit questions # 16 to 21)
- ☐ Other _____

16. Activities (check all applicable)

- X Preliminary site visit
- X Prospecting
- X Geological mapping
- X Geophysical survey
- X Diamond drilling
- X Reverse circulation drilling
- ☐ Evaluation Drilling/Bulk Sampling (also complete separate questionnaire)
- X Other: Trenching/Blasting/Large Diameter Drilling

17. Type of deposit (exploration focus):

- ☐ Lead Zinc
- X Diamond
- ☐ Gold

☐ Uranium
☐ Other: _____

DRILLING INFORMATION

18. Drilling Activities

X Land Based drilling
X Drilling on ice (last ice drilling was in 2011)

19. Describe what will be done with drill cuttings?

Please refer to **Schedule 5 – Waste Management Plan**

20. Describe what will be done with drill water?

Drill water is recirculated and contained in natural sumps.

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.

Please refer to **Schedule 14 – Spill Contingency Plan**

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

Core logging will be done on site but no core testing will be done on site.

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.

Please refer to **Schedule 14 – Spill Contingency Plan**

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

Spill kits are located at all operations camp sites and at all operations drill sites. There are approximately 25 - 205 litre spill kits, numerous quantities of five (5) gallon spill kits plus storage of other spill response equipment like fuel absorbent booms, pads and rolls.

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

This is a renewal application, no changes are requested.

The fuels are listed below were authorized under N2012C0024 and 2BE-CHI1218. All drums are stored in impermeable fuel berms.

Fuels	Number of Containers	Capacity of Containers
Diesel	2000	205 litres
Gasoline	20	205 litres
Aviation Fuel	250	205 litres
Propane	65	100 lb
Oxygen & Acetylene	7	100 lb

A review of past field operations indicates that the maximum quantity of fuel at site since the previous authorizations was 750 drums.

All other chemicals on site are in small quantities and typically contained in small manufacturer containers ranging in size from 5 gallon pails to 500 mililitres. These materials are kept in storage in the maintenance shed or in tool cribs and are in small quantities relative to the amount of fuel at site.

WATER SUPPLY AND TREATMENT

26. Describe the location of water sources.

This is a renewal application, no changes are requested.

Please refer to **Schedule 1 – Critical Locations & Coordinates**

Water Sources for the Discovery Camp, Aurora Camp and Sunrise Camp are adjacent to the camps. The Ch-6 Camp does not have a local water source.

- The Discovery Camp summer water source is a meltwater drainage. In the winter domestic water is hauled to Discovery Camp from one of five (5) approved large diameter drilling under ice winter water withdrawal sites.
- The Sunrise Camp water source is a large lake ("Sunrise Lake") which is eight (8) kilometers long.
- The Aurora Camp water source is a large lake ("Aurora Lake") which is three (3) kilometers long
- The CH-6 Camp does not have a nearby water source. The camp has only been operated in the winter of 2013. At this time water was withdrawn from one of five (5) approved local under ice winter withdrawal site. This will continue to be necessary for future use.

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

This is a renewal application, no changes are requested.

25 Domestic Use: _____ Water Source: See **Schedule 1**

221 Drilling: _____ Water Source: Local water sources are used for summer drilling. Specific approved under ice winter water sources are used for winter large diameter drilling locations.

☐ Other: _____ Water Source: _____

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:

Yes…

DFO documents of Note:

1) Freshwater Intake End-of-Pipe Fish Screen guideline (1995)
2) DFO Protocol for Winter Water Withdrawal from Ice-covered Waterbodies in the Northwest Territories and Nunavut (2010)

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

Potable water is periodically tested to monitor compliance with Canadian Drinking Water Quality criteria.

30. Will drinking water be treated? How?

Yes, treated with ionizer light.

31. Will water be stored on site?

Yes, in water tanks. The tanks are filled every one or two days depending on water use.

WASTE TREATMENT AND DISPOSAL

Please refer to **Schedule 5 – Waste Management Plan**

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

X Camp Sewage (blackwater)

X Camp Greywater

X Solid Waste

X Bulky Items/Scrap Metal

X Waste Oil/Hazardous Waste

X Empty Barrels/Fuel Drums

☐ Other:

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

Please refer to **Schedule 5 – Waste Management Plan**

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

Please refer to **Schedule 5 – Waste Management Plan**

Yes, Peregrine holds a valid Business Licence from the City of Iqaluit which authorizes it to use the municipal waste facilities. Peregrine also uses certified waste handler Nunatta Environmental Services Ltd.

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

Core drill sumps are located in natural depressions away from the ordinary high water mark of all natural water bodies. Cuttings containment areas will be used in the winter and are as described as follows:

1) **Cuttings Containment Area 1 – CH-7 Rock Basin**
   a. The Cuttings Containment Area 1 was engineer selected and received regulatory approval in 2013. It is located in a large natural rock basin with rock walls and broken rock rubble at the base. It measures approximately 25 meters by 300 meters and has an estimated capacity of 7,000 cubic meters of material. This cuttings containment area was used in 2015 at which time 125 cubic meters of cuttings were deposited in the CH-7 rock basin.
2) **Cuttings Containment Area 2 – Flat Area**
   a. The Cuttings Containment Area 2 was engineer selected and received regulatory approval in 2013. It I s located in a large flat area. It measures approximately 100 meters by 100 meters and has a capacity of 2000 cubic meters. This flat area will require a snow berm around the perimeter during use.
3) **Cuttings Containment Area 3 – CH-6 Rock Basin**
   a. The Cuttings Containment Area 3 – CH-6 Rock Basin was selected by an engineer and received regulatory approval in 2013. It is located in a large natural rock basin with rock walls and broken rock rubble at the base. It measures approximately 20 meters by 200 meters and has an estimated capacity of 4,000 cubic meters of material.

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

Leachate monitoring will not be done. Kimberlite is mafic rock and carbonate bearing it does not leach acid.

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, the water supply and waste treatment and disposal methods have been used and proven in cold weather. These procedures have been in operation for approximately 10 years.

Operational procedures are simple and thus not subject to breakdown. Periodic maintenance is done on the incinerator but the maintenance is scheduled.

ABANDONMENT AND RESTORATION

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

Please refer **to Schedule 15 – Abandonment and Restoration Plan**

BASELINE DATA

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

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

Please refer to **Schedule 11 – Bibliography of Environmental Baseline Studies**

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