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NUNAVUT WATER BOARD
NUNAVUT IMALIRIYIN KATIMAYINGI
OFFICE DES EAUX DU NUNAVUT

EXPLORATION/ REMOTE CAMP SUPPLEMENTARY QUESTIONNAIRE

Applicant: **Hope Bay Mining Ltd.** **Licence No:** **2BE-HOP0712**
(For NWB Use Only)

ADMINISTRATIVE INFORMATION

1. Environment Manager: **Chris Hanks – Director Environmental Social Responsibility**
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2. Project Manager: **Russ Eby** Tel: **(604) 759-4684** Cell: **(907) 250-5701**
E-mail: **russ.eby@newmont.com**

3. Does the applicant hold the necessary property rights?

Yes. Surface rights are administered by the KIA under land use license KTL303C056 and mineral rights are administered by INAC under mining lease 4649 (Madrid 2). HBML's surface and mineral rights are in good standing with the KIA and INAC, respectively.

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: **May 20, 2007** Completion: **June 30, 2012 (Term of current license)**

CAMP CLASSIFICATION

6. Type of Camp

☐ Mobile (self-propelled)
☐ Temporary
☐ Seasonally Occupied: _____
☑ Permanent
☐ Other:_____

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

The maximum capacity of the camp is governed by the sewage treatment plant (STP) which is designed for a 180 person camp. There will be 180 beds at the camp.

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

The Nunavut Water Board first issued a water license for the Windy Camp in 1996. The original Windy Camp, located on the east shore of Windy Lake, has provided support services for regional exploration activities for the central and northern areas of the Hope Bay belt since that time. Windy Camp included camp facilities, offices, workshops, fuel storage, and core storage areas. It was closed in 2008 and temporary shutdown activities were undertaken.

CAMP LOCATION

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

The new location for Windy Camp is in Quarry D. The site is located on a topographical high and ranges in elevation between about 44 m and 60m above sea level. The quarry will be developed down to a level of 47 m, which is the elevation at which the camp will be constructed. Overall the site is in the Windy Lake catchment and Windy Lake, the nearest water body (at elevation 10 m above sea level), is approximately 500 m due west from the proposed camp. The site will free drain towards to the north. Air photo interpretation confirms that the soils in this area are consistent with other locations where detailed investigations have been carried out. The soils consist of marine silt and clay, and the lack of frost polygons suggest that the material is likely not ice rich. The entire site is cold permafrost with average ground temperatures of about -8 ^{o}C and an active layer of about 0.5 m thick. Total permafrost depth is about 500 m.

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.

The existing Windy Camp is located on the eastern shore of Windy Lake. The landowner , the Kitikmeot Inuit Association, had requested that HBML relocate the camp such that it would be at least 30 m from Windy Lake's high water mark. Quarry D was chosen as the camp location because it is ideally suited to construct a new camp, is sufficiently close to the old site to be functional, and it is outside of the potential zone of influence of a future open pit at Naartok. See attached drawings for site location.

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

☑	Crown Lands	Permit Number (s)/Expiry Date: **ML-4649/Oct. 12, 2022**
☐	Commissioners Lands	Permit Number (s)/Expiry Date:
☑	Inuit Owned Lands	Permit Number (s)/Expiry Date: **KTL303C056/Jan. 30, 2011**

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

- **Umingmaktok is appoximately 68 km NW of Windy Camp**

- **Cambridge Bay is approximately 134 km NNE of Windy Camp**

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

HBML has notified and discussed this project with the KIA. HBML will consult the nearby communities soon.

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. This camp is located close to the original Windy Camp and will continue to use Windy Lake as a water source as is permitted by the current license 2BE-HOP0712.

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)

- ☐ Preliminary site visit
- ☑ Prospecting
- ☑ Geological mapping
- ☑ Geophysical survey
- ☑ Diamond drilling
- ☑ Reverse circulation drilling
- ☐ Evaluation Drilling/Bulk Sampling (also complete separate questionnaire)
- ☐ 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?

This is an amendment application. Drill cuttings treated as per requirements of the current license.

20. Describe what will be done with drill water?

This is an amendment application. Drill water treated as per requirements of the current license.

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.

This is an amendment application. Drill additives to be used are in line with the requirements of the current license.

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

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.

HBML's current Spill Contingency Plan, submitted in March 2010, is on file with the NWB in hard copy and digital format.

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

Hydrocarbon spill kits will be positioned in all areas where there is the likelihood for a spill to occur such as: the tank farm and containment berms, the camp site, the main generator sets, the helicopter pad, the equipment parking area(s), and the incinerator.

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

For diesel: 2 x 75,000 L AST, 6 x 70,000 L AST tank, 1 x 50,000 L AST tank
For gasoline: 1,243 L total capacity tidy tanks (gasoline arrives on site in 45 gallon drums and is transferred to the tanks as needed)

MSDS sheets are available on site.

WATER SUPPLY AND TREATMENT

26. Describe the location of water sources.

Raw water is pumped from Windy Lake.

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

- ☑ Domestic Use: **63 cu.m/day** Water Source: **Windy Lake**
- ☑ Drilling: **80 cu.m/day** Water Source: **Nearest 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? (see *DFO 1995, Freshwater Intake End-of-Pipe Fish Screen Guideline*) Describe:

No changes from existing license. Water intake for Windy Camps is 100' from shore and 60' deep. The pump intake is screened to meet DFO requirements. The pipeline is 2" in diameter and is heat traced.

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

Raw water and treated tap water are sampled weekly, or more as required, for: Hg, Al, Sb, As, Ba, Be, B, Cd, Cr, Co, Cu, Pb, Li, Mo, Ni, Se, Ag, Tl, Sn, Ti, U, V, Zn, Ca, Fe, Mg, Mn, K, Na, ammonia-N, biological oxygen demand, fecal coliforms, nitrate (as N), nitrite (as N), oil and grease (visible sheen), oil and grease, phosphorus, total suspended solids, Cl, Ca, Mg, K, Na, F, ion balance, TDS, hardness (as $CaCO_3$), nitrate and nitrite as N, sulfate, pH, conductivity, bicarbonate, carbonate, hydroxide, alkalinity.

30. Will drinking water be treated? How?

Water will first be pre-treated (cartridge filtration). This will be followed by UV disinfection and chlorination .

31. Will water be stored on site?

Treated water will be stored temporarily in two tanks with a volume of 5 m^3 each. These tanks are part of the water treatment plant. The firewater storage tank volume is 518 m^3.

WASTE TREATMENT AND DISPOSAL

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

- ☑ Camp Sewage (blackwater) **Camp sewage will be discharged to a new sewage treatment plant (STP) that will treat sewage by membrane bio-reactor and UV disinfection. It will have a maximum capacity for 180 people per day and a discharge rate of 63 m^3/day. This new STP will discharge treated wastewater to HOP-2, the approved outflow location for 2BE-HOP0712.**

- ☑ Camp Greywater **Camp greywater will also be treated in the STP. See above.**

- ☑ Solid Waste **Solid waste that can be burned will be incinerated. Waste that cannot be burned will be sorted on site before being backhauled from site.**

Backhauled waste is taken by barge or by air to approved disposal facilities for proper disposal.

☑ Bulky Items/Scrap Metal **Waste that cannot be burned will be sorted on site before being backhauled from site. Backhauled waste is taken by barge or by air to approved disposal facilities for proper disposal.**

☑ Waste Oil/Hazardous Waste **Waste oil is burned in an oil furnace. Hazardous waste is removed from site by barge or by air and sent to a disposal facility certified to handle the waste.**

☑ Empty Barrels/Fuel Drums **Empty barrels and fuel drums are removed from site by barge or by air and sent to a disposal facility certified to handle the waste.**

☐ Other:

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

The incineration system will be a diesel fired incinerator. Waste to be incinerated includes food waste, paper, and untreated wood products.

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

Please see responses to question 32.

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

Not applicable.

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

Not applicable.

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?

All methods have been in place for a number of years. No problems are expected. Contingency plans are in place as set out in the Standard Operating Procedures for each system and the Spill Contingency Plan, for example.

ABANDONMENT AND RESTORATION

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

As previously, the specific tasks associated with the final abandonment and restoration activities of the camp site can be summarized as follows:

- **Collection and disposal of hazardous and non-hazardous wastes;**
- **Decommissioning and rehabilitation of fuel storage area;**
- **Demolition or relocation of site structures;**
- **Remediation of any contaminated soils;**
- **Rehabilitation of any permafrost degradation areas; and**
- **Site re-vegetation and drainage control.**

As previously, appropriate environmental monitoring will be implemented at the completion of each phase to ensure conformance with closure objectives.

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: _____

No baseline information has been collected as a direct requirement of this water license, however, considerable baseline data has been collected as a component of the Doris North Environmental Impact Statement. Environmental, socio-economic, and traditional knowledge studies are ongoing and this data is being used to create a baseline dataset for the Hope Bay Belt. See the Final Environmental Impact Statement, Doris North Project, Nunavut, Canada, submitted by Miramar Hope Bay Ltd. October 2005 to the Nunavut Impact Review Board.

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