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Tel: (867) 360-6338 NUNAVUT WATER BOARD
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EXPLORATION/ REMOTE CAMP SUPPLEMENTARY QUESTIONNAIRE

Applicant: Defence Construction Canada **Licence No:** _____
(For NWB Use Only)

ADMINISTRATIVE INFORMATION

1. Environment Manager: Graham Emmerson, UMA Engineering Ltd.
Tel: (403) 270 9200 Fax: (403) 270 0399 E-mail: gemmerson@umagroup.com

2. Project Manager's Environmental Officer: Scott Hamilton, Defence Construction Canada
Tel: (613) 998 4583 Fax: (613) 998 1061 E-mail: HAMILTSC@dcc-cdc.gc.ca

3. Does the applicant hold the necessary property rights?

Yes, work is to be performed on a Federal Reserve on behalf of the Department of National Defence. An application for INAC Land Use Permit has been submitted.

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

[X] Annual
[ ] Multi Year:
If Multi-Year indicate proposed schedule of on site activities
Start: June 2003 Completion: October 2005

Site investigation activities are anticipated to require a single season. A re-visit to the site the following summer may be required if necessitated by unforeseen circumstances such as weather delays.

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?

The average population of the camp will be approximately 20 people including the site investigation team, equipment operators, wildlife monitors and the camp outfitter staff. The work program will be executed in stages with personnel shift changes upon completion of each stage. The maximum population of the camp is anticipated to be 25 people.

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

During the 1950's and 1960's the site was operated as a Distant Early Warning System (DEW Line) site by the Canadian and American governments. The Byron Bay site was an intermediate station designated PIN-4. No other development of the site has been recorded.

CAMP LOCATION

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

Regionally, the landscape is characterized by a surficial veneer of unconsolidated glacial drift, reworked to form extensive raised beach complexes. The landscape is generally poorly draining with numerous, unconnected small pools of water. The largest bodies of water in the vicinity of the site are Dease Straight, southeast of the station area and Nine Mile Lake, to the west of the site. Figure 2, Annex A is an overall site plan of PIN-4 showing the proximity of the work areas to geographical and geomorphologic features.

No biogeographical features, such as caribou crossings, polar bear denning areas, important char fisheries or critical avifauna habitat have been recorded at the site. A summary of the geomorphological conditions and biophysical resources of the site is included in the document segment appended in Annex F.

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 camp location will be selected from previously disturbed areas on site to provide the best access to site roads, the airstrip and investigation targets. The final camp location will be selected once the outfitter contract has been finalized. On similar DEW Line clean-up site investigations, the temporary camp has been established on level, gravel site features such as the airstrip apron or taxiway.

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

[X] Crown Lands Permit Number (s)/Expiry Date: INAC Land Use Permit application submitted and under review.

[ ] Commissioners Lands Permit Number (s)/Expiry Date: _____

[ ] Inuit Owned Lands Permit Number (s)/Expiry Date: _____

12. Closest Communities (distance in km):

The PIN-4 site is a remote station accessible via chartered aircraft or barge. There is no road access to the site. The closest community to the former PIN-4 site is Cambridge Bay NU, located approximately 100 km east of the site.

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

Community consultation is an integral part of the DEW Line clean-up investigation and design process. Part 4 of the Project Description for Nunavut Impact Review Board in Annex E describes the community consultation process.

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 unmitigated, negative impacts on traditional water use areas and wildlife habitats are anticipated as a result of the site investigation activities.

PURPOSE OF THE CAMP

15.
- ○ Mining
- ○ Tourism (hunting, fishing, wildlife observation, adventure/expedition, etc.) (Omit questions # 16 to 21)
- ● Other DEW Line Clean Up Site Investigation (Omit questions # 16 to 22)

16.
- ○ 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:
- ○ 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?

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.

No

SPILL CONTINGENCY PLANNING

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

Fuel and hazardous material spill contingency plans are provided in Annex D and Appendix E of the document in Annex E.

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

A spill kit will be located at each fuel storage/handling area operated by the camp and will consist, at minimum, of the following :

- Oil Absorbent materials
- Salvage/storage drum
- 2 shovels
- rubber lined gloves
- 1 wheelbarrow or trailer for removal of impacted soils

Other smaller, customized spill kits will be located in close proximity to areas where laboratory materials are stored and used.

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

It is estimated that the camp operation will require a combined total less than 4000 litres of gasoline or diesel fuel. Fuel is stored in 205 litre barrels in a location situated a minimum of 100 metres from any water body or drainage course. Fuel is provided by the camp outfitter. MSDS information can be obtained upon request from the outfitter after the award of the contract.

WATER SUPPLY AND TREATMENT

26. Describe the location of water sources.

The domestic water supply for camp operations is indicated on Figure 2, Annex A.

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

- ● Domestic Use: 2500 L/day Water Source: Water Supply 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 will be pumped from the water supply lake into a mobile water tank using a portable pump. Water intake hoses will be equipped with 2.5 mm wire mesh screens to prevent the intake of fish and sediment.

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

Bottled water is to be provided by the camp outfitter to serve as the potable water supply for the duration of the site investigation.

30. Will drinking water be treated? How?

Not Applicable.

31. Will water be stored on site?

Water required for non-potable uses will be stored in the mobile tank.

WASTE TREATMENT AND DISPOSAL

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

- Camp Sewage (blackwater)

Camp sewage will be disposed of in dug latrines or incinerator toilets. Sewage will be buried a minimum distance of 100 m from any body of water or drainage course.

- Camp Greywater

All non-sewage waste water and greywater will be discharged to a greywater pit located a minimum of 30 m from natural water bodies or drainage courses. The greywater pit will be backfilled prior to departure from the site.

- Solid Waste and Bulky Items/Scrap Metal

Non-hazardous combustibles will be incinerated on site. Ash and residual waste will be buried with the sewage. Laboratory waste and non-combustibles will be packaged and stored in a suitable DEW Line facility for disposal during the DEW Line clean up. Excess fuels, camp facilities and equipment will be removed from site during demobilization.

- Waste Oil/Hazardous Waste

It is not anticipated that the site investigation will generate hazardous wastes. Equipment oil changes will be performed prior to mobilizing to site.

- Empty Barrels/Fuel Drums

Empty fuel drums and excess fuels will be removed from site during demobilization.

○ Other:

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

Domestic wastes and non-hazardous combustibles will be incinerated in an enclosed vessel located a minimum of 100 metres away from the camp, site facilities, water bodies or drainage courses. A fire extinguisher will be available at the incineration site.

34. Where and how will non-combustible waste be disposed of ? If in a municipality in Nunavut, has authorization been granted?
Non-combustible waste will be packaged and stored on site in a suitable DEW Line facility, such as the warehouse or hangar, for disposal during clean up. During the clean up operation, the waste will then be placed in an on-site landfill or transported to a waste treatment facility off site, depending on the nature of the material.

35. Describe location (relative to water bodies and camp facilities) dimensions and volume, and freeboard for 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?
The water supply and waste treatment/disposal methods proposed for use during the PIN-4 site investigation have been employed with success during previous DEW Line site investigations at 17 of the 21 sites in the Canadian Arctic. Contingency plans for fuel and hazardous material spills, wildlife encounters and finding heritage resources are provided in Annex D.

ABANDONMENT AND RESTORATION

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

All equipment, materials and supplies brought to site during the site investigation will be removed from site following the completion of the site activities or packaged and stored in a suitable DEW Line facility on-site for reuse during the clean up. All test pits and excavations will be backfilled. Waste products will be disposed of as mentioned in sections 32 through 34.

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:

During the initial stages of DEW Line Clean Up planning, information was gathered about the physical and biological environment of the site as well as the socio-economic characteristics of the site. Available information gathered during previous investigations is presented in the document segment included in Annex F.

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.