# Appendix "C"

♦ Supplementary Questionnaire ♦

# APPLICATION FOR A WATER USE & WASTE WATER DISPOSAL DRILL PERMIT IN THE TERRITORY OF NUNAVUT

*application to:*
**NUNAVUT WATER BOARD**
P.O. Box 119
Gjoa Haven, Nunavut
X0E 1J0

*submitted by:*
**CALEDONIA MINING CORPORATION**
Unit #5 –2155 Dunwin Drive
Mississauga, Ontario
L5L 4M1

*prepared by:*
**ASHTON MINING (NORTHWEST TERRITORIES) LTD.**
Unit 123 – 930 West 1st Street
North Vancouver, British Columbia
V7P 3N4

P.O. Box 119
GJOA HAVEN, NT X0E 1J0 kNK5 wmoEp5 vtmpq
TEL: (867) 360-6338 NUNAVUT WATER BOARD
FAX: (867) 360-6369 NUNAVUT IMALIRIYIN KATIMAYINGI

# EXPLORATION/ REMOTE CAMP SUPPLEMENTARY QUESTIONNAIRE

**Applicant:** Caledonia Mining Corporation **Licence No:** NWB2KLA
(For NWB Use Only)

## ADMINISTRATIVE INFORMATION

1. Environment Manager: _____ Tel: _____ Fax: _____ E-mail: _____

2. **Project Manager:** Jeff Ward **Tel:** (604) 983-7750 **Fax:** (604) 987-7107
E-mail: jeff.ward@ashton.ca

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)? If so, please provide letter of authorization.**

5. Duration of the Project
   - ○ Annual
   - ⊘ Multi Year:
     If Multi-Year indicate proposed schedule of on site activities
     Start: April 1, 2001 Completion: April 1, 2003

## CAMP CLASSIFICATION

6. Type of Camp
   - ○ Mobile (self-propelled)
   - ○ Temporary
   - ⊘ Seasonally Occupied: 480 man days per year
   - ○ 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 camp is intended to house approximately eight people for a period of two months. Activities are usually divided between a summer sampling program and a winter drilling program.

8. **Provide history of the site if it has been used in the past.** Site has never been used in the past.

## CAMP LOCATION

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

The camp is to be located on the eastern side of an unnamed lake. It is located on sandy flat lying ground near deep water to facilitate the landing and take-off of float planes.

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 site was selected based upon reconnaissance by Ashton field personnel during the summer 2000 field season.

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

- ⊘ Crown Lands Permit Number (s)/Expiry Date: _____
- ○ Commissioners Lands Permit Number (s)/Expiry Date: _____
- ○ Inuit Owned Lands Permit Number (s)/Expiry Date: _____

12. **Closest Communities (distance in km):**

Kingoak (formerly Bathurst Inlet) is the closest community. It is approximately 230 kilometers away.

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

No.

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.

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

17. Type of deposit:

- ○ Lead Zinc

- ⊘ Diamond
- O Gold
- O Uranium
- O Other: _____

## DRILLING INFORMATION

18. **Drilling Activities**

- ⊘ Land Based drilling
- O Drilling on ice

19. **Describe what will be done with drill cuttings?**

All drill cuttings will be contained in a sufficiently large, land based sump or natural depression. Cuttings can be flown out at the request of the Nunavut Water Board. All sumps will be located not less than 30 meters from the high water mark of any water body.

20. **Describe what will be done with drill water?**

Drill water will be stored in tanks and re-circulated while in use and any remnant water will be pumped into a sufficiently large, land based sump or natural depression. All sumps will be located not less than 30 meters from the high water mark of any body.

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.**

1) X-TRA GEL
2) Poly Drill O.B.X.
3) Poly Drill Clay Treat II

The MSDS Sheets for these "muds" are listed in "Appendix H."

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

No core testing will be done on site. All core will be flown to Yellowknife.

## SPILL CONTINGENCY PLANNING

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

Please refer to "Appendix B" – Section 6.0 of this application.

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

One spill kit will be located at the camp while two spill kits will be located at the drill site. One spill kit will be located near the fuel storage area while the other will be located near the drill engine. The spill kit is a 45 gallon drum containing shovels. fuel absorbent pads and 20 kilograms of granules.

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

**Maximum quantities of fuel stored at the site will be:**

Campsite:

1) Five 45-gallon drums of diesel
2) Two 24 gallon drums of Jet-B
3) Two 100 pound tanks of propane

Drill:

1) Five 45-gallon drums of diesel
2) Eighteen 24 gallon drums of Jet-B
3) Two 100 pound tanks of propane

Fuel will be stored at least 30 meters away from drainage systems and bodies of water, and whenever possible in natural sumps.

Please refer to "Appendix G" for the MSDS Sheets.

## WATER SUPPLY AND TREATMENT

**26. Describe the location of water sources.**

Water for the camp and drilling activities would be drawn from local water sources in the area. Please refer to the map in Appendix "A."

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

- ⊘ **Domestic Use:** 400 l/day (50 litres x 8 people) **Water Source:** 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:**

As stated in Section 27, minimal amounts of water will be required for the day-to day needs of the camp. This water will be drawn from the near-by lake using an electric 0.5 horsepower pump. A one-millimeter mesh screen will be used to cover the water intake and prevent aquatic life from being drawn into the system.

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

As Ashton has never had a problem with the quality of drinking water in the North and this is a small-scale operation water quality will only be monitored using the senses of sight and smell.

**30. Will drinking water be treated? How?**

No chemical treatments of drinking water will be done however all water drawn into the system is screened.

**31. Will water be stored on site?**

Water will be temporarily stored in a hot water tank for use by camp personnel.

## WASTE TREATMENT AND DISPOSAL

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

⊘ **Camp Sewage (blackwater)**

Sewage will be deposited into a sump, which will be restored to the natural contours of the land prior to the expiry of the permit.

⊘ **Camp Greywater**

Camp grey water will be deposited into a sump, which will be restored to the natural contours of the land prior to the expiry of the permit.

⊘ **Solid Waste**

Combustible garbage will be properly stored and burned daily in a suitable container. Non-combustible garbage and debris including metal wastes will be removed from the site and flown to Yellowknife.

⊘ **Bulky Items/Scrap Metal**

Bulky items /Scrap Metal will be removed from the site and flown to Yellowknife.

⊘ **Waste Oil/Hazardous Waste**

Ashton will not generate any hazardous waste however the routine maintenance associated with generators may produce a small amount of waste oil. This oil will be contained and flown to Yellowknife.

⊘ **Empty Barrels/Fuel Drums**

Empty barrels will be stored then returned to Yellowknife.

○ **Other:**

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

The incineration system consists of a 45-gallon drum with the top removed. A heavy mesh screen is placed over the opening to prevent debris or embers from escaping. This system is commonly referred to as a "burn barrel." Only camp wastes will be incinerated. This consists mainly of household/kitchen type waste such as food scraps, newspapers, old maps etc.

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

All waste that is not combustible will be flown to Yellowknife.

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

The sump or natural depression is located at least 30 meters from the high water mark of any water body.

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

No. This is not a factor in this type of operation.

## SECTION 11.0 – OTHER PERSONNEL

Caledonia is anticipating a camp of 6 to 8 people for both the winter drilling program and summer sampling programs. Personnel at the camp will mainly consist of: 1 cook, 1 helicopter pilot, 2 geologists with the balance being made up of either technicians or drillers.

The staffing of exploration programs is dependant upon the results of our geological evaluation work and the annual budget allocation for Nunavut. As a result it is relatively difficult to determine who will be working on the project a year from now.

Two tables have been provided below. The first table outlines the principle field staff for Nunavut while the second table outlines the contracting companies that are regularly used. Ashton Mining (Northwest Territories) Ltd. will be managing all field operations and, as a result, their personnel are listed in Table 1.

**Table 1**
**Summary of Ashton Field Personnel**

| Name | Position | Name | Position |
|---|---|---|---|
| ♦ Jeff Ward | Project Manager | ♦ Jim Rooke | Lab Technician |
| ♦ Dave Pickston | Sr. Geological Technician | ♦ Andrew Berry | Project Manager |
| ♦ Scott Jardine | Geological Technician | | |

**Table 2**
**Summary of Ashton Contractors**

| # | Company | Address | Phone / Fax |
|---|---|---|---|
| 1 | Ashton Mining (NWT) Ltd. | Unit 123 – 930 West 1st Street<br>North Vancouver, BC<br>V7P 3N4 | Ph: (604) 983-7750<br>Fax: (604) 987-7107 |
| 1 | Discovery Mining Services | P.O. Box 2248<br>Yellowknife, NT<br>X1A 2P7 | Ph: (867) 920-4600<br>Fx: (867) 873-8332 |
| 2 | Great Slave Helicopters Ltd. | Bag 7500<br>Yellowknife, NT<br>X1A 2R3 | Ph: (867) 873-2081<br>Fx: (867) 873-6087 |
| 3 | Air Tindi Ltd. | Bag 1693<br>Yellowknife, NT<br>X1A 2P3 | Ph: (867) 669-8260<br>Fx: (867) 669-8247 |
| 4 | First Air | Postal Service 9000<br>Yellowknife, NT<br>X1A 2R3 | Ph: (867) 669-6600<br>Fx: (867) 669 6603 |

## 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 during previous drill programs and camp operations conducted under NWB and DIAND permits.

## ABANDONMENT AND RESTORATION

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

Upon completion of Ashton's drilling operations, all materials and equipment will be removed from the site and all sumps will be restored to the natural contours of the land. Any lands affected by Ashton's operations will be restored to the most reasonable extent possible, to their original state.

## BASELINE DATA

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

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

As this is a "scout" drilling program and the campsite is temporary in nature no base line data has been collected.

## 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
- O NWB - Interim Rules of Practice and Procedure for Public Hearings
- O NWTWB - Guidelines for the Discharge of Treated Municipal Wastewater in the NWT
- O NWTWB - Guidelines for Contingency Planning
- ⊘ DFO - Freshwater Intake End of Pipe Fish Screen Guideline
- ⊘ Fisheries Act - s.35
- ⊘ RWED - Environment Protection- Spill Contingency Regulations
- O Canadian Drinking Water Quality Guidelines
- O Public Health Act Camp Sanitation Regulations
- O 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.**