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NUNAVUT WATER BOARD

NUNAVUT IMALIRIYIN KATIMAYINGI

EXPLORATION/ REMOTE CAMP SUPPLEMENTARY QUESTIONNAIRE

Applicant: AREVA Resources Inc Licence No: _____

(For NWB Use Only)

ADMINISTRATIVE INFORMATION

1. **Environment Manager:** Dan Zunti
2. **Project Manager:** Dan Zunti
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.**

No
5. **Duration of the Project**
☐ Annual
☒ Multi Year:
If Multi-Year indicate proposed schedule of on site activities
Start: 2008 field season to begin May 2008 Completion: December 2010

CAMP CLASSIFICATION

6. **Type of Camp**
☐ Mobile (self-propelled)
☒ Temporary
☒ Seasonally Occupied: possibly May through to September
☐ Permanent
☐ Other: _____
7. **What is 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 will host approximately 50 personnel and contractors in 2008, during peak times.
8. **Provide history of the site if it has been used in the past.**

The Kiggavik camp was first established in 1977 and it was occupied for drill programs until 1997. During peak years, this camp has accommodated up to 50 persons. Camp clean up activities were undertaken in 2003 and 2004, which included repairing buildings to prevent further deterioration and demolishing those that were beyond repair.

During the 2007 field season a number of buildings were refurbished and new accommodations were established. An incinerator and secondary containment for fuel and waste material was established at the Kiggavik site, which included two fuel caches.

CAMP LOCATION

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

The existing Kiggavik camp is located approximately 80km west of Baker Lake; approximately 300m south of a small unnamed lake at 64° 24'N and 97° 52'W on NTS map sheet #66/A. Please refer to the attached maps and figures in Appendix I.

It was previously indicated that a second camp may be established at the Sissons site. This option is currently not being considered. If the establishment of a camp at the Sissons site is desired at a later date, consultation with NWB, KIA, INAC and the community of Baker Lake will occur prior to choosing a location.

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 Kiggavik camp was selected based on the proximity to the deposits and the small lake for water supply.

If a site at Sissons is to be chosen it will be evaluated on the basis of proximity to the exploration drill program, location of water source, and heritage resource locations.

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

[☒] Crown Lands Permit Number (s)/Expiry Date: Application submitted
[] Commissioners Lands Permit Number (s)/Expiry Date: _____
[☒] Inuit Owned Lands Permit Number (s)/Expiry Date: Two year permit

Existing Crown Lands Permit – INAC # N2006C0037 will expire April 9th, 2008.

IOL issued by KIA - License KVL306C02 expires Jan 2, 2009

12. Closest Communities (distance in km):

Baker Lake is approximately 80km to the east of the Kiggavik camp.

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

Yes. AREVA has undertaken various meetings and discussions with key groups in Baker Lake, including the Mayor and hamlet council members, Hunter Trapper Organization, elders of the Aberdeen Lake area. AREVA has established a community liaison office in Baker Lake and

hired a Community Liaison Officer. A Baker Lake Community Liaison Committee of members appointed by their Stakeholder groups has been formed and meets once a month as a means of keeping the community of Baker Lake involved in the project. Elsewhere in the Kivalliq, AREVA has given presentations to the KIA, the Kivalliq Chamber of Commerce and the Kivalliq Wildlife Board. AREVA has also participated in uranium information sessions sponsored by the KIA in all Kivalliq communities, has met with the councils of Chesterfield Inlet, Arviat, Whale Cove and Rankin Inlet and has held a community meeting in Chesterfield Inlet. AREVA is in the process of setting up a Regional Liaison Committee with representatives from each community in the Kivalliq to enhance regional involvement in the project. AREVA gave presentations to the NPC Uranium Workshop held in Baker Lake and the NTI Public Consultation sessions held in Baker Lake and Kugluktuk and AREVA gives an update presentation at most meetings of the Beverly and Qamanirjuaq Caribou Management Board.

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 impacts are anticipated.

PURPOSE OF THE CAMP

15. ☒ Mining – Exploration (drilling, mapping, geophysical surveys)
☐ 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
☐ Gold
☒ Uranium
☐ Other: _____

DRILLING INFORMATION

18. **Drilling Activities**
☒ Land Based drilling
☐ Drilling on ice
19. **Describe what will be done with drill cuttings?**

All land-based drill cuttings will be pumped to a natural depression or low lying area that will be located a minimum of 30-metres from the normal high water mark of any water body. The area will be backfilled upon completion of the hole. Drill cutting in ore will be collected and stored in designated areas (see Radiation Protection Plan).

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

The drill water will be re-circulated when feasible to do so; otherwise it will be directed into the environment.

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.**

MSDS sheets for some of the common additives used are included in the attached Spill Contingency Plan. AREVA will ensure that the additives are non-toxic and biodegradable and will update the Spill Contingency Plan with appropriate MSDS sheets upon the occurrence of any changes.

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

Drill cores will be split and sent to a laboratory for geochemical analysis.

SPILL CONTINGENCY PLANNING

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

Yes there is a Spill Contingency Plan in place. The November 2006 version that was previously submitted has been revised to reflect the addition of the fuel tank storage system. Please see attached.

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

There will be one spill kit at camp, one at each drill site, and one at each fuel cache locations and one per 100,000-litres of fuel at fuel storage tanks. In addition, there will also be a minimum of one empty fuel drum located at each fuel cache for the collection of any fuel contaminated spill clean up product. Additional spill pads will be available at each fuel cache and in a storage location at camp. Please refer to the attached Spill Contingency Plan.

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

This information is provided in the attached Spill Contingency Plan. In summary, the type of fuels and chemicals include:

Product	Storage Container	Quantity
Jet B	205 liter drum/double walled tank (50,000liter)	4 drums/3 tanks
P-50 Diesel	205 liter drum/double walled tank (50,000liter)	133 drums/5 tanks (2 at Sissons, 3 at Kiggavik)
Gasoline	205 liter drum	Less than 50
Propane	100 lb	100

AREVA intends to install the fuel tank storage systems in 2008 to replace the previous handling and storage requirements of large amounts of 205 liter drums of diesel, gas and Jet-B fuels. However, any remaining fuel from the 2007 field season will be retained on site for future use (quantity listed in above table). A majority of the empty fuel drums will be shipped off site for handling; however some will remain on site and will be utilized for fuel transfers from the fuel tanks to supply equipment, camp needs and the helicopter.

All fuel, chemicals and hazardous waste material will be stored in adequate storage containers and placed in secondary containment (artic berms; other lined storage or buildings designated for storage) for future handling.

WATER SUPPLY AND TREATMENT

26. Describe the location of water sources.

The Kiggavik camp is located to the south of a small unnamed lake. This small lake was used in previous years and during the 2007 field season as the water source for the Kiggavik camp.

As a result of elevated oil and grease results from a sample collected during the 2007 field season, this unnamed lake will not be used until further testing can be completed. An adjacent small unnamed lake may be utilized as a water source for camp.

There are numerous lakes in the vicinity of the drilling program areas; water will be extracted from the lakes identified in the attached figures.

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

- ☉ Domestic Use: 100 L/day per person Water Source: small unnamed lake
- ☉ Drilling Units: 35 m3/day Water Source: see Figure #4
- Other: _____ Water Source: _____

The existing water license allows for the combined water use of 40 cubic meters per day. The 2007 field season used approximately 3 cubic meters per day for domestic use at the camp and 30 cubic meters per day per drill rig (only one drill rig in 2007), for a total of approximately 33 cubic meters per day. This value is anticipated to increase in 2008 to approximately 90 cubic meters with the use of three drill rigs and an increase in persons in camp.

Please accept this request for approval to use up to 100 cubic meters per day – combined domestic and drilling purposes.

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

The water intake for camp operations will consist of a submersible pump and a filtered intake that complies with DFO guidelines for screens to prevent the entrainment of fish.

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

The lake and drinking water will be monitored and analyzed to meet federal/territorial requirements and compared to the Canadian Drinking Water Quality Guidelines.

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

Drinking water at the camp is currently being passed through a UV filter system. The system will be assessed and improvements will be made on an as needed basis.

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

Water will be collected as needed and stored in a tank at the camp.

WASTE TREATMENT AND DISPOSAL

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

- ☉ Camp Sewage (blackwater): 0.02 cubic metres/day/person.

Disposal method – currently using porta-toilets, bagged sewage is collected daily and incinerated in the on-site Single Chamber Cyclonator Incinerator.

The expansion to the latrine building will include the addition of four incinerating toilets, resulting in a clean ash to be collected and disposed of. The ash will be drummed, stored and shipped off site for appropriate handling.

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- ☉ Camp Greywater: 6 cubic metres/day.

Disposal method – piped to a low lying area, located directly south of camp

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- ☉ Solid Waste: minimal amount anticipated.

Disposal method – incineration paper, untreated wood and food waste, or remove from site for proper disposal.

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- ☉ Bulky Items/Scrap Metal: minimal amount anticipated.

Disposal method – removed from site for proper handling

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- ☉ Waste Oil/Hazardous Waste: minimal amount anticipated.

Disposal method – stored in appropriate containers, in secondary containment until removed from site for handling at approved sites.

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- ☉ Empty Barrels/Fuel Drums

Disposal method – removed from site on a regular basis and returned to Baker Lake to be barged south for recycling

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- Other:

See attached Waste Management Plan for specific details.

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

A Single Chamber Cyclonator Incinerator (Series CY1000) was purchased and installed at the Kiggavik camp during the 2007 field season.

Combustible wastes such as food, paper and untreated wood will be incinerated on a regular basis. Solid sewage is also being incinerated on a daily basis.

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

Non-combustible, inert waste will be removed from site and taken to the Baker Lake landfill. A copy of the signed agreement between the Hamlet of Baker Lake and Areva Resources Canada Inc was forwarded to Joe Murdock (NWB) on February 14, 2007.

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

If sumps are to be used they will be located at a minimum of 30 meters from the normal high water mark of any water body, including streams. A schematic has been provided (see attached) to show the general location and layout of the Kiggavik camp.

If sumps are developed the locations will be added to the schematic and forwarded to the agencies.

If it determined at a future date that a camp is required at the Sissons site, the location and layout will be determined in consultation with the agencies and the community of Baker Lake.

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

Visual inspections of any existing sumps will be conducted daily. In the event that any leaching is observed, the DIAND Water Resource Officer will be contacted immediately.

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 treatment and disposal methods being proposed are currently in practice across the north and follow the regulated guidelines and accepted methods. The current contingency plan at this time is mitigation (safe distance for disposal in sumps, shipping off site any hazardous chemicals/scrap metal/non-combustible waste, etc.) and monitoring. Should any there be any concerns, the DIAND Water Resource Officer will be notified immediately.

ABANDONMENT AND RESTORATION

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

Please see the attached “Abandonment & Restoration Plan”. The Plan includes seasonal shutdowns as well as final closure. All drill sites will be cleaned daily with all wastes removed to camp for disposal. All field personnel will be required to return personal garbage to camp for disposal.

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:

Extensive amount of environmental baseline information has been collected in this project area in support of the Kiggavik Project Environment Assessment Report in 1990/1991.

In 2007 environmental baseline work included the following:

- Surface hydrological investigations
 - Discharge measurements
 - Survey stream and lake water elevations
- Aquatic Ecology Assessments
 - Water Quality
 - Aquatic Habitat
 - Fish Community
 - Lake Sediment and Benthic Invertebrate Sampling

In 2008 additional baseline work will be conducted in the areas of aquatic, terrestrial and wildlife to assist in updating currently available information and to address data gaps.

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.