



Effective June 16, 2006

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NUNAVUT IMALIRIYIN KATIMAYINGI
NUNAVUT WATER BOARD
OFFICE DES EAUX DU NUNAVUT

WATER LICENCE

Application for: (check one)

☐ New ☒ **Renewal** ☐ Amendment ☐ Assignment ☐ Cancellation

LICENCE NO:
(for NWB use only)

1. NAME AND MAILING ADDRESS OF APPLICANT/LICENSEE

Gerard Zaluski, District Geologist
Cameco Corporation, Exploration Department
2121 – 11th St West
Saskatoon, SK.
S7M 1J3

Phone: (306) 956-6359

Fax: (306) 956-6390

e-mail: gerard_zaluski@cameco.com

2. ADDRESS OF CORPORATE OFFICE IN CANADA (if applicable)

Cameco Corporation, Exploration Department
2121 – 11th St West
Saskatoon, Sk.
S7M 1J3

Phone: (306) 956-6200

Fax: (306) 956-6201

e-mail:

3. LOCATION OF UNDERTAKING (describe and attach a topographical map, indicating the main components of the Undertaking)

The undertaking is uranium mineral exploration, which includes water use at camp (proposed new camp on Aberdeen Lake and until then, at the current camp on Qamanaarjuk Lake) and water use from nearby lakes to operate 2-4 diamond drills. The main part of this amendment is to operate an additional 3 drills, for a maximum total of 5, requiring 55 m³ each of daily allowable water use.

Figure 1 – Location Map of Projects in Nunavut

Figure 2 – Detailed Location Map of the Aberdeen and Turqavik Projects

Figure 3 – Map of current Qamanaarjuk camp

Figure 4 – Map outlining proposed drilling areas and water sources

Camp Location

Proposed New Camp – Aberdeen Camp

Latitude: (64° 23' 30"N) Longitude: (98° 27' 54"W)

Current Exploration Camp – Qamanaarjuk Camp

Latitude (64° 37' 42"N) Longitude (97° 59' 39"W)

NTS Map Sheet No. 66B/8, 66A/12

Scale: 1:50,000

Nunavut Water
Board

FEB 17 2012

Public Registry

4. DESCRIPTION OF UNDERTAKING (attach plans and drawings)

See Non-Technical Project Proposal and Summary document (attached).

5. TYPE OF PRIMARY UNDERTAKING (A supplementary questionnaire must be submitted with the application for undertakings listed in "bold")

☐ Industrial

☒ **Mining and Milling** (includes exploration/drilling)

☐ **Municipal** (includes camps/lodges)

☐ Power

☐ Agricultural

☐ **Conservation**

☐ Recreational

☐ **Miscellaneous** (describe below):

See Schedule II of *Northwest Territories Waters Regulations* for Description of Undertakings

6. WATER USE

- ☒ To obtain water
☐ To cross a watercourse
☐ To modify the bed or bank of a watercourse
☐ Other (describe): _____
- ☐ Flood control
☐ To divert a watercourse
☐ To alter the flow of, or store, water

7. QUANTITY OF WATER INVOLVED (cubic metres per day including both quantity to be used and quality to be returned to source)

Water use ☐ 100m³/day or less
☒ Greater than 100m³/day; if greater, indicate quantities to be used for each purpose (camp, drilling, etc.)
 Camp: 5 m³/day, Drilling: 5 drills 55 m³/day each. Total 280 m³/day
Water returned to source
 0 m³/day

8. WASTE (for each type of waste describe: composition, quantity (cubic metres per day), methods of treatment and disposal, etc.)

- | | | | |
|--|---|---|---|
| <input checked="" type="checkbox"/> Sewage | 0.015 m ³ /day, human solids incinerated, liquids disposed through sumps | <input checked="" type="checkbox"/> Waste oil | 0.001 m ³ /day, from genset and other small engines |
| <input checked="" type="checkbox"/> Solid Waste | Max 0.08 m ³ /day, incineration of combustibles and removal of ash to municipal disposal grounds | <input checked="" type="checkbox"/> Greywater | Maximum 3 m ³ /day, from washing and disposed through sumps or water treatment |
| <input type="checkbox"/> Hazardous | | <input type="checkbox"/> Sludges | |
| <input type="checkbox"/> Bulky Items/Scrap Metal | | <input checked="" type="checkbox"/> Other (describe): | Drill cuttings (0.5 m ³ /day – disposed in sumps, radioactive are collected and removed to licensed disposal facility) |

9. OTHER PERSONS OR PROPERTIES AFFECTED BY THIS UNDERTAKING (give name, mailing address and location; attach if necessary)

Land Use Permit
DIAND

☒ Yes ☐ No If no, date expected _____

Regional Inuit Association

☒ Yes ☐ No If no, date expected _____

Commissioner

☐ Yes ☐ No If no, date expected _____

10. PREDICTED ENVIRONMENTAL IMPACTS OF UNDERTAKING AND PROPOSED MITIGATION MEASURES (direct, indirect, cumulative impacts, etc.)

The main impact of this amendment is an extra 110-165 m³ of water use per day (if the maximum number of drills are drilling steady). The increased drilling will increase ground and helicopter noise, as well as more drill setups on the tundra. The cumulative impact of this amendment is more noise to wildlife and, therefore, more potential disturbance. The mitigation measures will be as outlined in our Wildlife Plan (attached), we shut down the drill if caribou come within 2 km of the drill site. We have wildlife monitors that indicate to the drill crew if those circumstances arise. Drill crews are also required to shut down if no monitor is present (night shift) and these circumstances arise. This instance occurred twice in 2009 and again in 2010 and 2011 where 100's to 1000's of caribou surrounded the drill site and drilling was ceased until the caribou moved away. Those measures would apply to all drills. The additional drills will be mainly used for delineation drilling at the Tatiggaq and Qavvik zones, confined to small areas (approx. 1000 x 500 m

areas) so all disturbances will be more easily monitored.

The second impact will be the creation of a new, larger exploration camp (38-60 people) which will increase noise and activity in that area. This will be mitigated by using a historic exploration camp site, minimizing waste (using incinerating toilets), and fabric structures that can be easily removed. This impact will be mitigated by the closure of the existing exploration camp. The purpose of relocating the camp is to make it closer to the drilling sites, which will significantly reduce helicopter use and its impact on wildlife.

A NIRB Screening 1 and 2 was completed on the original project proposal in 2008. A new NIRB 1&2 Screening will be completed on the new, 2012 INAC and KIA LUP applications.

NIRB Screening



Yes

☐ No

If no, date expected _____

11. INUIT WATER RIGHTS

Will the project or activity substantially affect the quality, quantity, or flow of water flowing through Inuit Owned Lands and the rights of Inuit under Article 20 of the Nunavut Land Claims Agreement?

No

If yes, has the applicant entered into an agreement with the Designated Inuit organization to pay compensation for any loss or damage that may be caused by the alteration. If no compensation agreement has been made, how will compensation be determined?

12. CONTRACTORS AND SUB-CONTRACTORS (name, address and functions)

Forest Helicopters Inc., Kenora, ON (helicopter)
Boart Longyear, Saskatoon, SK (diamond drilling)
SK Construction, Baker Lake, NU (expediting services)
Discovery Mining Services (camp construction and labour)
Gebauer and Associates, Vancouver, BC (wildlife monitoring)
MWH Geo-Surveys, Vernon, BC (gravity surveys)
Golder and Associates, Saskatoon, SK (Archaeology Survey)

13. STUDIES UNDERTAKEN TO DATE (list and attach copies of studies, reports, research, etc.)

Yearly Wildlife Monitoring 2008, 2009, 2010, other wildlife studies (environmental land cover classification, height of land, crossing research). Archeology survey - all attached

14. THE FOLLOWING DOCUMENTS MUST BE INCLUDED WITH THE APPLICATION FOR THE REGULATORY PROCESS TO BEGIN

Supplementary Questionnaire (where applicable: see section 5) ☒ Yes ☐ No If no, date expected _____

Inuktitut and/or Innuinaqtun/English Summary of Project ☒ Yes ☐ No If no, date expected _____

Application fee of \$30.00 (Payee Receiver General for Canada) ☒ Yes ☐ No If no, date expected _____

Water Use fee of \$30.00 (unless otherwise indicated in Section 9 of the *NWT Waters Regulations*; Payee Receiver General for Canada)



Yes ☐ No If no, date expected _____

15. PROPOSED TIME SCHEDULE (unless otherwise indicated, the NWB will consider the application for a five (5) year term)



one year or less (or)



Multi Year

Start Date: May 2012

Completion Date: June 2017 (option for renewal)

Gerard Zaluski
Name (Print)

District Geologist, NU & NWT
Title (Print)


Signature

Jan 12, 2012
Date

For Nunavut Water Board office use only

APPLICATION FEE Amount: \$ _____ Pay ID No.: _____

WATER USE DEPOSIT Amount: \$ _____ Pay ID No.: _____