

## NWB Annual Report

Year being reported: 2009



License No: 2BE-QAM0813

Issued Date: June 2, 2008

Expiry Date: September 31, 2013

Project Name: Turqavik - Aberdeen Project or (Qamanaarjuk Lake Project)

Licensee: Rebecca Hunter

Mailing Address: Cameco Corporation  
2121-11th St W  
Saskatoon, Saskatchewan  
S7M 1J3

Name of Company filing Annual Report (if different from Name of Licensee please clarify relationship between the two entities, if applicable):

Same as above.

## General Background Information on the Project (\*optional):

The 2009 field season included further construction of the exploration camp that was initiated in 2006 and continued throughout 2007 and 2008. The 2009 exploration program consisted of diamond drilling, prospecting, mapping and sampling, as well as ground gravity geophysical survey.

Licence Requirements: the licensee must provide the following information in accordance with

Part B



Item 1



A summary report of water use and waste disposal activities, including, but not limited to: methods of obtaining water; sewage and greywater management; drill waste management; solid and hazardous waste management.

Water Source(s):	Qamanaarjuk Lake, other lakes for drilling	
Water Quantity:	3	Quantity Allowable Domestic (cu.m)
	~1	Actual Quantity Used Domestic (cu.m)
	55	Quantity Allowable Drilling (cu.m)
	~36	Total Quantity Used Drilling (cu.m)

## Waste Management and/or Disposal

- ☒ Solid Waste Disposal  
☒ Sewage  
☒ Drill Waste  
☒ Greywater  
☒ Hazardous  
☐ Other:

Additional Details:

Summary Report:

A summary report of water use and waste disposal activities includes a detailed description of methods of obtaining water and its treatment for domestic use, and description of procedures for greywater and sewage management. The following report outlines the water use and waste disposal practices during the Turqavik – Aberdeen Projects 2009 field season.

Potable water for use at the exploration camp is taken from Qamanaarjuk Lake, located down the hill from the camp. From the lake, water is pumped with a gasoline-driven high-pressure pump. The intake location is approximately 7 m away from the shore. There, the suction hose is equipped with a standard 2" (3.22 cm) pond strainer, ensuring no organisms get accidentally sucked in. Through the 1" (2.54 cm) supply hose, water is pumped up the hill into a sheltered 1000 gallon (3.8 m<sup>3</sup>) tank. During the transfer to a smaller tank (capacity of approximately 300 gallons or 1.1 m<sup>3</sup>), located inside the main building, water is filtered and treated by UV radiation. This filter is a UV20 Series PURA set-up for small commercial application. During the filtering process, water is passed through a series of polyester filters that first remove sediments 10 µ and larger, and then remove any particles as small as 5 µ. In addition, the system includes a charcoal filter and, as a final treatment step, a large UV filter. This filtered and treated water is only used for consumption, preparation of foods, showering, washing of kitchen supplies and laundry. On average, approximately 1 m<sup>3</sup> of water is used daily. Water intake was monitored by a mounted standard meter that is used in municipal supply distribution systems (nutating disc displacement flow meter). Logs of pumped water are kept and are included with this report.

At the camp there are four 200 L capacity sumps. All greywater from domestic use (from cooking, dish washing, showering, and washing machine) is disposed into either one of the sumps. These sumps are located at a distance of well above the minimum 30 metres from the high water mark of the lake, near the main two buildings (used for kitchen, dry and office). The sumps are cribbed with perforated steel drums. The kitchen sump is also equipped with a commercial baffled grease trap for a more efficient waste separation. The locations of the three sumps used for showering, laundry and washing of kitchen supplies have been moved 1 m down slope from their original spot described in the 2008 water report. The kitchen sump was moved to a more adequate gravel-rich spot. The move was necessary to accommodate for the rehabilitation of the old sumps that are not draining water properly. In order to fix the old sumps, burning of the residual waste with propane and breaking down of the soap-rich residue, if applicable, are required.

All sewage and domestic waste are incinerated. On premises, there are two incinerators. One incinerator is The Original Burnadette supplied by Nugget Expediting Ltd. It has floor dimensions of 25" x 25" (63.5 x 63.5 cm) and contains a Beckett Industrial Burner with own diesel fuel supply. This incinerator is used for a fast evaporation of liquids before all waste is transferred to the second incinerator. The second incinerator is a SmartAsh cyclonic barrel burner manufactured by Elastec Inc. It consists of a 208 L capacity drum with manual fuel supply. During incineration, waste is reduced to approximately 3% ashes by volume. The incinerator is designed to use liquid fuel such as diesel or Jet A. All sewage, kitchen food waste, and solid waste (such as glass and plastic jars, paper, wood shavings, used oil, etc.) are incinerated and turned into ash.

Incinerated ash is removed by hand, packed into cardboard boxes and wrapped in

Incinerated ash is removed by hand, packed into cardboard boxes and wrapped in two plastic bags for additional security. These packages are then transported to municipal disposal grounds in Baker Lake.

At the drill site, water is used for circulation down the drill hole to cut through the rock and to wash out the hole. The length of the water line for the drill ranged from 50 to 1,500 m. Water was pumped from the closest lake that was also large enough to supply approximately 35 m<sup>3</sup> of water per day. Water intake was monitored by the pump set-up itself with a moving rate of 10 gallons/minute (approximately 38 litres/minute or 0.038 m<sup>3</sup>/min). Circulated water ran off from the drill site and percolated into the ground. The cuttings were directed into natural depressions of the terrain. One drill hole intersected weak uranium mineralization. The cuttings were separated using a centrifuge of the drill's water recycling system, gathered into a chemically resistant industrial-size vinyl bag, and levels of uranium concentration were monitored daily. The radiation level of the cuttings fell below the 0.005 mSv/hr, which is equivalent to 0.05% uranium concentration. As indicated by the INAC Land Use Permit N2008C0007 only cuttings that exceed 0.05% uranium concentration are to be collected and disposed either down the drill hole or by other acceptable means. After the drill hole was completed the cuttings were removed from the vinyl bags and distributed in natural depressions directly around the drill site.

All fuel drums at the camp and at the airstrip were stored in berms. At the camp, the generator is connected to a double-walled 250 gallon (0.95 m<sup>3</sup>) metal fuel tank by copper fuel lines. For use at the camp 9 berms were purchased, 8 of which have dimensions of 10' x 10' x 1' (3 x 3 x 0.3 m) and can hold 15 drums. And one berm has dimensions of 10' x 15' x 1' (3 x 4.6 x 0.3 m) to hold approximately 25 drums. The berms are made of XR-5 high grade chemically resistant vinyl fabric. Rain water that collects in the berms is absorbed, filtered and returned as greywater. All used absorbents are incinerated. There are two extra large berms at the main airstrip. One berm has the dimensions of 30' x 60' (9 x 18 m) to hold up to 300 drums of fuel, and the second berm has the dimensions of 50' x 50' (15 x 15 m) to hold a maximum of 416 drums of fuel. At the drill sites fuel is stored in double-walled metal containers.

#### A list of unauthorized discharges and a summary of follow-up actions taken.

Spill No.:  (as reported to the Spill Hot-line)

Date of Spill:

Date of Notification to an Inspector:

Additional Details: (impacts to water, mitigation measures, short/long term monitoring, etc)

#### Revisions to the Spill Contingency Plan

SCP submitted and approved - no revision required or proposed



Additional Details:

**Revisions to the Abandonment and Restoration Plan**

AR plan submitted and approved - no revision required or proposed ▼

Additional Details:

**Progressive Reclamation Work Undertaken**

Additional Details (i.e., work completed and future works proposed)

Exploration program is ongoing with a similar objective for 2010 field season.

**Results of the Monitoring Program including:****The GPS Co-ordinates (in degrees, minutes and seconds of latitude and longitude) of each location where sources of water are utilized;**

Details attached ▼

Additional Details:

Report on locations where sources of water are utilized with corresponding photos is attached.

**The GPS Co-ordinates (in degrees, minutes and seconds of latitude and longitude) of each location where wastes associated with the licence are deposited;**

Details described below ▼

Additional Details:

See attached Excel sheet for GPS coordinates. At the camp, four sumps are used for disposal of greywater, as well as sewage and other waste are incinerated. Circulated water at the drill sites is allowed to percolate back into the ground on location.

**Results of any additional sampling and/or analysis that was requested by an Inspector**

No additional sampling requested by an Inspector or the Board ▼

Additional Details: (date of request, analysis of results, data attached, etc)

**Any other details on water use or waste disposal requested by the Board by November 1 of the year being reported.**

No additional sampling requested by an Inspector or the Board ▼

Additional Details: (Attached or provided below)

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**Any responses or follow-up actions on inspection/compliance reports**

Inspection Report received by the Licensee (Date): ▼

Additional Details: (Dates of Report, Follow-up by the Licensee)

As identified by inspections in 2007 and 2008:

1. Use berms for secondary containment of fuel drums at the camp, and at the drill site fuel is stored in double-walled metal containers.
2. Proper incinerators are used for waste management.

**Any additional comments or information for the Board to consider**

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**Date Submitted:**

March 30, 2010

**Submitted/Prepared by:**

Rebecca Hunter

**Contact Information:****Tel:**

(306) 956-6279

**Fax:**

(306) 956-6390

**email:**[rebecca\\_hunter@cameco.com](mailto:rebecca_hunter@cameco.com)