VIA COURIER

January 26, 2012

Aboriginal Affairs and Northern Development Canada
Land Administration
PO Box 2000
Iqaluit, NU X0A 0H0

Kivalliq Inuit Association
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Rankin Inlet, NU X0C 0G0

Nunavut Impact Review Board
PO Box 1360
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Nunavut Water Board
P.O. Box 119
Gjoa Haven, NU X0B 1J0

Government of Nunavut – Department of Environment
PO Box 1000 Station 200
Iqaluit, NU X0A 0H0

Dear All:

Re: 2011 Annual Report for the Kiggavik Project
INAC Land Use Permit N2009C0017; KIA Land Use Licence KVL306C02; NWB Water Licence 2BE-KIG0812

Please find enclosed the 2011 AREVA Resources Canada Inc. (AREVA) Annual Report for the Kiggavik Project and accompanying updated operational plans for your review, comment and distribution. A hard copy and CD of the annual report and plans have been sent via courier.

This report fulfills the Nunavut Impact Review Board screening recommendation; Indian and Northern Affairs Canada permit condition No. 5, and Nunavut Water Board Licence Part B, Item 2 for an annual report submitted by January 31 and March 31st respectively, which addresses the previous year of operation.

AREVA trusts that this annual report is a concise and useful summary of the activities conducted in 2010. Please do not hesitate to contact Frederic Guerin at 306-343-4631 or frederic.guerin@areva.ca or myself at 306-343-4043 with any questions or comments.

Yours truly,

Kim Jackson
Environment and Radiation Protection Supervisor
AREVA Resources Canada Inc.
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cc:
Workers' Safety and Compensation Commission
ARC Distribution

AREVA Resources Canada Inc. - Kiggavik Project Field Program

2011 Annual Report

January 2012

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AREVA Resources Canada Inc.

KIGGAVIK PROJECT FIELD PROGRAM

2011 ANNUAL REPORT

Date of issue: January 2012

AREVA

Kiggavik Project

2011 Annual Report

January 2012

EXECUTIVE SUMMARY

The following Annual Report is a summary of the 2011 field program conducted at the Kiggavik Project and is required by condition #5 of the Land Use Permit N2009C0017 issued by Aboriginal Affairs and Northern Development Canada (AANDC) and under Part B, Item 2 of Licence no. 2BE-KIG0812 issued by the Nunavut Water Board (NWB).

The 2011 field program of the Kiggavik Project focused on diamond drilling, ore and waste rock sampling and geophysical surveys in order to improve the understanding of known uranium deposits in the Kiggavik and Sissons areas. Diamond drilling was also performed in these areas to further evaluate potential deposits. Drilling started on June 9, 2011 and was completed August 6, 2011. During the drilling period 6192.1 m was completed on 15 drill holes using NQ sized diamond core equipment. Packer tests were performed and thermistors installed in two holes, one extending below the base of expected permafrost. Ground temperature data from the thermistors installed in previous years and 2011 was collected.

Environmental baseline work in 2011 was focused on aquatic, atmospheric, terrestrial wildlife and airborne alpha emissions. This information was included in the Kiggavik Project's Draft Environmental Impact Statement (DEIS) which was submitted to the Nunavut Impact Review Board (NIRB) on December 20, 2011. The Kiggavik Project Operational Plans were implemented during the 2011 field program to prevent or reduce any potential adverse effects from exploration activities on wildlife and the environment.

All drilling operations were conducted out of the Kiggavik camp and were supported by helicopter services and the Baker Lake office. In 2011, the camp accommodated up to 53 persons. There were no lost time incidents involving AREVA Resources Canada Inc. (AREVA) personnel and one lost time accident involving a contractor. Occupational health, safety and radiation protection programs were implemented to ensure workers performed in a safe and responsible manner and were not adversely exposed to radiation from uranium exploration activities. AREVA also maintained its ISO 14001 certification for the Kiggavik Project Environmental Management System which was originally achieved in 2009. In addition, AREVA obtained the OHSAS 18001:2007 certification for the Kiggavik Project Safety Management System.

A community engagement program was carried out to support all aspects of the Kiggavik Project, including the field program.

ᑎᑎᖅᑲᖅ ᓈᐃᓪᓕᑎᖅᓯᒪᔪᖅ

ᑎᑎᕋᖅᓯᒪᔪᑦ ᐅᑭᐅᑕᒻᒪᖅᓯᐅᑎᓃ ᐅᓂᑉᑳᐅᖅᓯᒪᔪᑦ ᐅᒃᑭᐅᖓ 2011 ᐱᓪᓕᕆᐊᕆᓐᓪᓚᐅᖅᑕᖏᑦ ᖃᐅᔨᓴᖅᖢᑕ ᑭᒡᒐᕝᕕᖕᒥᒃ ᐊᒪᓪᓘ ᐃᒻᒪᐃᑐᖁᔭᐅᔪᖅ ᓈᔅᓴᐅᑦᑕ 5 ᓄᓐᓇᖕᒐᓃ ᐊᖏᖅᑕᐅᓯᒪᔪᑉ N2009C0017 ᑎᑎᖅᑲᖅᑯᑎz5 ᐃᓄᓪᓕᕆᔾᑐᖃᖁᑦ ᐊᒻᒪᓘ ᐅᑭᐅᖅᑕᖅᑐᒥ ᐱᕙᓪᓕᐊᑎᑦᓯᔾᑦ ᑲᓈᑕᒻᒥ (ᐃᓄᓪᓕᕆᔾᑦ) ᐊᒻᒪᓘ ᐊᔪᕆᓇᓂᐅᑎᖓᑦ Part B, ᑎᑎᖅᑲᖅ 2 ᑌᐃᓴᓐᓴᖓ no. 2BE-KIG0812 ᑎᑎᖅᑲᖅᑯᑎᖓᑦ ᓐᓅᓇᕙᑦ ᐃᒻᒪᓪᓕᕆᔾᑦ ᑲᑎᒪᔨᖅᔪᐊᖏᑦ (ᐃᒻᒪᓪᓕᕆᓂᖅ)

2011ᒥ ᐱᓪᓕᕆᐊᖑᓪᓛᐅᖅᑐᑦ ᑭᒡᒐᕝᕕᖕᒥ ᑕᐅᑐᒃᑕᐅᓪᓘᐊᖅᑐᖅ ᑕᐃᒪᓐᓴᓂᒃ ᐃᑯᑕᖅᓂᖅᒥᒃ, ᐅᔭᕋᐃᑦ ᐊᒪᓗ ᐅᔭᖃᑦ ᐊᑐᖏᑐᑦ ᖃᐅᔨᓴᖅᓂᑯᑦ ᐊᒪᓗ ᓄᓐᓇᖑᐊᓪᓚᐅᖅᓂᖅ ᑐᑭᓯᕙᓪᓚᖅᓯᑉᓗᑎᒃ ᔪᕈᓂᐊᓪᒥᒃ ᖃᐅᔨᒪᔭᐅᔪᒥᒃ ᐅᔭᕋᒃᑕᖅᑕᐅᓂᒃᓴᖓᓂᒃ ᑭᒡᒐᕝᕕᖓᒥ ᐊᒪᓗ ᕿᑭᖅᑕᓪᓕᒥ ᐊᕙᑕᓐᓄᓘ. ᑕᐃᒻᒪᓐᓇᓂᒃᑕᐅᖅ ᐃᑯᑕᖅᑕᓪᓛᐅᖅᑐᑦ ᐊᓯᑲᖓᓂᐊᓃ ᐱᑦᑕᖅᑲᕈᒡᕆᔭᐅᔪᓐᓂ. ᐃᒃᑯᑕᓇᐊᓛᐅᖅᑐᑦ ᑦᔫᓐ· 9, 2011 ᐊᒻᒪᓗ· ᐱᔭᕇᖢᑎᒃ ᐊᐅᒡᒍᔅ 6ᒥ, 2011. ᐃᒃᑯᑕᖅᑕᐅᓪᓚᐅᖢᓃ 6192.1ᒥ ᐱᐊᓐᓂᓪᓛᐅᖅᑐᑦ 15ᓐᓃᒃ ᐃᒃᑯᑕᖅᓂᑯᑦ ᐊᑐᖅᖢᑎᒃ NQ ᐊᖏᓂᓪᓖᑦ ᑕᐃᒻᒪᓐᓄᑦ ᐃᑯᑕᐅᑎᓂᒃ. ᖃᐅᔨᓴᕈᑎᓐᓂᒃ ᐊᑐᓪᓛᐅᖢᑎᒃ ᐊᒪᓗ ᓯᒻᒥᒡᑭᔭᐅᕙᒃᑐᓐᓂᒃ ᐊᑐᖅᖢᑎᒃ ᐃᒃᑯᑕᖅᓂᑯᓐᓂᒃ ᓯᒻᒥᒃᓯᕝᓛᐅᖅᐳᑦ, ᐊᑕᐅᓯᖅ ᐊᑦᑎᓐᓃᐅᓂᐊᓪᓛᐅᖅᑐᑉ ᐅᖓᑎᑲᓐᓂᐊᓐᓄᑦ ᓐᓂᕉᒡᕆᔭᐅᓛᐅᖅᑐᑉ ᖅᑭᖅᑭᓐᓂᐅᑉ ᐊᑖᓅᑦ. ᓄᓐᓇᐅᑉ ᓂᒃᓪᓕᓇᖅᓂᖓᓂᒃ ᖃᐅᔨᒪᑐᑕᐅᔪᖅ ᐃᓪᓕᓯᒪᓛᐅᑐᖅ ᐊᑦᕋᓃ ᐊᒪᓗ 2011ᒥ ᐱᓯᒪᔭᖓᑦ.

ᐊᕝᕙᑎᓪᓕᖖᓇᓂᖅᒧᑦ ᖃᐅᔨᓴᖅᓂᖅ ᐱᓪᓕᕆᐊᖑᔪᖅ 2011 ᑐᕋᓐᓂᖅᑲᓪᓛᐅᕗᖅ ᐃᒪᖅᒥᐅᑕᓐᓂᒃ, ᓯᓪᓚᒧᑦ, ᓇᔪᖅᑕᐅᕙᒃᑐᓐᓄᑦ ᓂᖅᔪᑎᓐᓄᑦ ᐊᒪᓗ ᓯᓪᓚᒻᒧᐊᖅᑕᖅᓂᖕᒐᓄᑦ ᐊᓯᕈᔪᐃᑐᑉ ᐊᓃᐊᓂᖕᒐᓐᓄᑦ. ᑐᑭᓯᐅᕌᕈᑎᒃᓴᑦ ᑎᑎᕋᖅᓯᒪᖅᑕᐅᔪᖅ ᑭᒡᒐᕝᕕᖕᒧᑦ ᐱᓪᓕᕆᐊᖕᓄᑦ ᓯᕗᓪᓕᖅᐸᖅᓯᐅᑦ ᐊᕙᑎᓪᓕᕆᓐᓂᖅᒧᑦ ᑎᑎᕋᖅᓯᒪᔪᖅ (ᐊᕝᕙᑏ) ᑐᖕᓂᔭᐅᓪᓚᐅᖅᑐᖅ ᓅᓐᓈᕙᑦ ᐊᒃᑐᖅᑕᐅᓇᓂᖅᓄᑦ ᑕᒃᑯᓪᒦᐊᒃᑲᖅᓂᖅᓂᖅᒧᑦ ᑲᑎᒻᒪᔨᖅᔪᐊᖅᓄᑦ (ᑲᑎᒪᔨᑦ) ᐅᑉᓗᖅ ᑎᓯᑉᐱᓃ 20, 2011. ᑭᒡᒐᕕᐅᑉ ᐱᓪᓕᕆᐊᖕᒐᓄᑦ ᐸᖅᓈᐅᑕᐅᓯᒪᔪᖅ ᑲᔪᓯᑎᑕᐅᓪᓚᐅᖅᑐᖅ ᐊᑦᕋᒃᒍᓐᖓ 2011ᒥ ᓄᓇᒻᒥ ᐱᓪᓕᕆᐊᖑᓐᓂᑯᑦ ᖃᓄᐃᖁᓇᒋᑦ ᐅᕙᓘᓃᑦ ᑕᒻᒪᑯᐊ ᓂᖅᔪᑏᑦ ᐊᒃᑐᖅᑕᐅᖁᓇᒋᑦ ᖃᐅᔨᓴᖅᓂᖁᓐᓄᑦ ᐊᒻᒪᓘ ᐊᕝᕙᑎ ᐊᒃᑐᖅᑕᐅᖁᓇᒍ.

ᐃᒃᑯᑕᖅᓂᓪᓘᒃᑖᑦ ᖃᐅᔨᓴᖅᑕᐅᓯᒪᓗᒃᑕᖅᑐᑦ ᑭᒡᒐᕕᐅᑉ ᓄᓐᓇᖅᑯᑎᖕᖓᓃ ᐊᒻᒪᓘ ᐃᑲᔪᖅᑐᖅᑕᐅᑦᓯᐊᖢᓐᓃ ᖁᖕᓕᒥᒡᒍᓕᒃᑎᒡᒍᑦ ᐊᒪᓗ ᖃᒻᒪᓐᓂ’ᑐᐊᖅᒥ ᑎᑎᕋᖅᕕᖕᒐᓃ. ᐅᒃᑭᐅᖓ 2011, ᓄᓐᓇᖕᒐᓃ ᐱᓪᓕᕆᔾᖃᓯᐅᕗᖅ 53 ᐃᓐᓄᓐᓂᒃ. ᐱᓪᓕᕆᐊᒃᓴᓐᓂᒃ ᐊᓯᐅᔨᓛᐅᖅᑐᑦ ᐊᕆᕝᕙᒥᐅᑦ ᐱᓪᓕᕆᔪᓪᓕᕆᔾᖏᑦ ᑲᓈᑕᒻᒥ ᑎᒻᒥᖓ. (ᐊᕆᕝᕙ) ᐱᓪᓕᕆᔾᖏᑦ ᐊᒻᒪᓘ ᐊᑕᐅᓯᖅ ᑲᓐᑐᕋᖅᓯᒪᔪᖅ ᐊᑕᐅᓯᖅ ᐊᖏᓐᓚᐅᖅᑐᖅ. ᐱᓪᓕᕆᐊᖅᑲᖅᑐᖅ ᐊᓐᓂᐊᖅᑕᐅᓪᓚᓂᖅᒥᒃ, ᖃᓄᐃᖏᑦᓯᐊᓂᖅᒧᑦ ᐊᒻᒪᓘ ᐅᑕᖅᓇᖅᑐᒧᑦ ᐱᓪᓕᕆᐊᖕᒪ ᖃᓄᐃᖏᑦᓯᐊᑎᑦᓯᓂᕐᒧᑦ ᑲᔪᓯᔪᖅ ᖃᓄᐃᑦᑐᖅᑕᖅᓇᖅᓄᑦ ᐊᖕᓂᖅᑐᖅᑕᖅᓇᖅᑐᖅ ᐊᒪᓗ ᐱᓪᓕᕆᐊᒥᓂᒃ ᐱᓯᐊᖅᑎᑦᓯᓐᓂᖅ ᐊᒪᓗ ᖃᓄᐃᑦᑐᐃᓇᖅ ᓈᒻᒪᖕᒋᑐᖅᑲᖅᓇᖅ ᐅᑕᖅᓇᖅᑐᒥᒃ ᔪᕈᓐᓇᖅᑐᐊᓪᒥᑦ ᖅᑭᓐᓇᖅᓴᖅᑎᓗᒋᑦ. ᐊᕆᕝᕙᒃᑯᑦ ᐊᖅᑭᐅᒪᑎᑦᓯᐊᖅᐸᒃᑐᑦ ᐊᔪᕆᓇᓂᐅᑎᒥᓐᓂᒃ 14001ᒻᒥᒃ ᑭᒡᒐᕕᖕᒧᑦ ᐱᓪᓕᕆᐊᒥᓄᑦ ᐊᕙᑎᓪᓕᕆᓂᖅᒧᑦ ᐊᐅᓪᓚᑎᑦᓯᐊᖅᓂᖅᒥᒃ ᐱᐅᓯᓇᓕᖅᑕᓪᒥᓐᓂᒃ ᑕᐃᒪᖓᑦ 2009. ᐃᓪᓚᑉᑭᐊᑲᖅᓂᖅᓗᒍ, ᐊᕆᕝᕙᒃᑯᑦ ᐱᓯᒪᔪᑦ ᐊᔪᕆᓇᓂᐅᑎᒥᓐᓂᒃ 18001:2007ᒥ ᐱᔪᓐᓇᐅᑎᒻᒥᓐᓂᒃ ᑭᒡᒐᕕᖕᒧᑦ ᐱᓪᓕᕆᐊᒥᓄᑦ ᐊᖕᓂᖅᑕᐃᓪᓕᓂᖅᒧᑦ ᐊᐅᓪᓚᑎᑦᓯᐊᖅᓂᖅᒥᒃ ᐊᐅᓪᓚᖅᓂᖅᒧᑦ.

k8N9`o`i5 ᐱᓪᓕᕆᖃᑎᒌᖕᓂᖅᒧᑦ ᐱᓪᓕᕆᐊᖑᐊᓪᓚᒃᑐᑦ ᑲᔪᓯᑎᑕᐅᕙᒃᑐᖅ ᐃᑲᔪᖅᑐᐃᖕᓂᖕᒋᓄᑦ ᑭᒡᒐᕝᕕᖕᒧᑦ ᐱᓪᓕᕆᐊᖕᒐᓄᑦ, ᐱᖅᑕᐅᐸᓗᒃᑎᑦ ᑕᒃᐸᓃ ᐱᓪᓕᕆᐊᖑᔪᑦ.

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1 SUMMARY OF 2011 FIELD ACTIVITIES

1.1 GENERAL

Field activities undertaken by AREVA Resources Canada Inc. (AREVA) and its contractors in 2011 included feasibility work, deposit appraisal and environmental baseline work:

- Exploration geological work in 2011 focused on diamond drilling at End, Bong, Sleek Lake and Andrew Lake. Ground geophysical surveys were conducted on the Sleek Lake Grid as well as the Granite Grid and Bong Grid corridor.
- Deposit appraisal and feasibility work in 2011 focused on diamond drilling in the Kiggavik area for the purpose of conducting packer testing and thermistor installation.
- Environmental baseline work in 2011 focused on atmospheric, terrestrial wildlife, and aquatic assessments.

Operations were conducted out of the Kiggavik camp and were supported by helicopter services and the Baker Lake office. In 2011 the camp accommodated up to 53 persons. Main Project contributors were as follows:

Activity	Contributors
Management	AREVA
Drilling	Boart Longyear
Geological logging and probing	AREVA
Ore and waste rock sampling	AREVA
Packer testing	Golder
Environmental Baseline Work/Aquatic studies	Golder
Environmental Baseline Work/Wildlife studies	Gebauer
Wildlife Monitoring	AREVA & NPS
Helicopter	Helicopter Transport Services (HTS)
Environment and Radiation Protection	AREVA
Health and Safety Services	AREVA & Tangmaarvik Inland Camp
Occupational First Aid & Catering	5136 Nunavut
Camp Operations & Maintenance	AREVA & NPS
Fuel and other Overland Transportation	Peter's Expediting
Expediting	AREVA & Peter's Expediting
Ground Geophysical Survey	Patterson Geophysics

1.2 CAMP ACTIVITIES

The temporary wooden camp at the Kiggavik site was maintained throughout the 2011 field season. A landing strip was created at the fuel cache esker to accommodate turbo otter flights and was used minimally by other companies working in the area.

1.3 FUEL CACHE

Two primary fuel cache locations were utilized in 2011:

- Fuel cache at esker:
  64° 25' 37.98" N, 97° 43' 22.07" W
  (14W 561512, 7145240)

- Fuel cache at Kiggavik camp:
  64° 26' 25.82" N, 97° 39' 39.05" W
  (14W 564464, 7146782)

Located on the fuel cache at the esker, AREVA utilized eight 50,000 L double walled steel Envirotanks for fuel storage. Three for jet fuel and five for diesel fuel. The eight tanks were installed by an approved installer and in accordance with Canadian Council for Ministers of the Environment (CCME) – Environment Code of Practice for Aboveground and Underground Storage Tank Systems Containing Petroleum and Allied Petroleum Products. The tanks are also registered with Environment Canada. Photograph 1-1 shows an aerial photo of the fuel cache and landing strip.

In 2011 AREVA allowed Forum Uranium to store and use jet fuel in drums (68 205 L drums) properly stored in berms at the fuel cache. Both Forum Uranium and Cameco also used fuel from AREVA's bulk tanks at the fuel cache esker. A few 205 L drums of diesel fuel are used at the camp for stove and incinerator use. These steel drums are kept in containment berms near the generator building. All fuel containers were labeled, identifying the contents and AREVA's name.

Photograph 1-1 Kiggavik Fuel Cache

1.4 DRILLING AND SAMPLING

Drilling started on June 9, 2011 and terminated on August 6, 2011. Diamond drilling was carried out in 5 areas in 2011: Kiggavik Main Zone, End, Bong, Sleek Lake and Andrew Lake. During the drilling period a total of 6192.1 m was completed on 15 drill holes using NQ sized diamond core equipment. Diamond drilling on the End Grid deposit included six drill holes with a total meterage of 2669.6 m, three holes were drilled in the Bong area for 1104 m, the Andrew Lake area included one drill hole for 435 m, the Sleek Lake area consisted of three drill holes for 1,479.5 m and the Main Zone area consisted of two drill holes for 504 m.

Drilling rates were generally good. All drill core was logged. Ore samples were collected from drill core and sent to a laboratory for testing. Table 1.4-1 includes a summary of the 2011 drilling program.

Table 1.4-1 Summary of 2011 Drill Holes

HOLE ID	Zone	Grid Coords	UTM X Easting	UTM Y Northing	Azimuth /Dip	Start	Finish	Depth (m)
GW-11-01	Main Zone	n/a	564872	7148669	-90	June 09	June 13	252
GW-11-02	Main Zone	n/a	565093	7146471	-90	June 17	June 21	252
END-11-01	END Grid	7+75S / 2+25E	554327	7135702	-90	June 16	June 24	315.6
END-11-02	END Grid	3+75S / 0+42E	554586	7136047	-90	June 25	July 5	516
END-11-03	END Grid	7+75S / 1+75E	554294	7135741	-90	June 29	July 14	477
END-11-04	END Grid	3+80S / 0+42E	554586	7136047	-84°→328°	July 7	July 15	468
END-11-05	End Grid	4+15S / 0+42E	554556	7136030	-90	July 16	July 24	392
END-11-06	End Grid	3+50S / 0+41E	554613	7136061	-90	July 25	August 2	501
BONG-050	BONG Grid	1+00N / 1+10W	562350	7144018	-90	June 21	June 30	387
BONG-051	BONG Grid	1+00N / 1+10W	562350	7144018	-83°→290°	June 21	July 7	327
BONG-052	BONG Grid	1+00N / 1+35W	562325	7144025	-90	July 15	July 21	390
SLEK-010	Sleek Lake		556428	7137073	-90	July 18	July 28	561
SLEK-011	Sleek Lake		556868	7167681	-90	July 22	July 28	447.5
SLEK-012	Sleek Lake		557142	7138241	-90	July 29	August 5	471
AND-11-01	Andrew Lake		556206	7134621	-60°→250°	July 29	August 6	435
							TOTAL:	**6192.1m**

1.4.1 End Grid

All holes were drilled to completion. Most of the drilling in 2011 focused on the North Pod of End Deposit, and all of these holes were on the Northwest edge of this pod. They confirmed additional resources in the area. Two holes (END-11-01 and END-11-03) were drilled on the South Pod of the deposit, where encouraging results at depth in 2010 indicated the possibility of additional mineralization below the known existing pod. These holes confirmed the upper mineralized lens, but did not confirm additional mineralization at depth. During this field

campaign, four drill holes were probed to completion; one drill hole was partially probed and one drill hole could not be probed due to poor ground conditions.

The main rock type observed at the End Grid was metasediment (psammite and quartzite) with local granite intrusions, which are here divided into four general groups: the upper paleo-weathered zone with hematitic alteration, the chlorite cap, the mineralized zone, and the slightly weathered to fresh zone. Main structural features include a shallow foliation, and variably-dipping fractures, shear zones, faults, breccias and vein systems.

Four drill holes were able to test the extension of known mineralization to the Northwest. Based on these results, the resulting interpretation now has the main ore lens splitting into multiple satellite ore units that continue to the Northwest. Mineralization is now open in that direction, as the extent is now unknown.

1.4.2 Main Zone

Two holes were completed at Main Zone in 2011, primarily for geotechnical purposes. Holes were logged to acquire geotechnical parameters. GW-11-01 and GW-11-02 were drilled to facilitate investigation into the hydrogeological conditions. The major rock types observed at Main Zone include metasediment and a granitic unit. Near surface rock appeared to be slightly to moderately weathered. In general, alteration within the metasedimentary gneiss appears to be dominated by silicifiication, while granite was observed to be predominantly bleached. However, there are significant intervals of strong bleaching and some clay replacement in metasediments locally, particularly in GW-11-01.

1.4.3 Andrew Lake

One hole was completed South of the Andrew Lake deposit to 435 m. AND-11-01 was drilled to test a gravity low below Andrew Lake, and is mostly composed of strongly paleo-weathered metasediments overlying fine- to medium-grained granitic gneiss.

Structures through AND-11-01 contrast the structural complexity of the deposit to the North in that there are no significant structural zones through the hole. The drill hole was barren.

1.4.4 Bong

The diamond drilling program in the Bong area was undertaken as a follow-up of positive results obtained during previous drilling programs. The three drill holes (BONG-11-01, BONG-11-02 and BONG-11-03) resulted in 1104 m of drilling. All three holes were prematurely terminated. Two of these holes were stopped due to poor ground conditions and the third (BONG-11-03) was terminated due to the presence of artesian conditions. All three holes tested the extent of the northern mineralized zone to the South. Although the holes at Bong Grid all intersected mineralization the amount decreased from the North, suggesting that the deposit does not continue much further in that direction.

The stratigraphy at Bong is dominated by metasediments, with minor occurrences of granite, lamprophyre and syenite. The alteration and structure in all three holes is quite intense.

1.4.5 Sleek Lake

The diamond drilling program in the Sleek Lake area was undertaken based on information received both from the most recent airborne gravity survey, as well as the 2011 resistivity program done on the site. Three holes were completed for 1479.5m along a linear northerly trend in the resistivity data. All holes intersected strongly paleoweathered lithologies, dominated by both metasediments and granite. Granite content in general decreased northward.

Alteration was minimal in all three holes, although there was moderate bleaching and chloritization locally. Only trace mineralization was encountered in SLEK-012 below a large structural zone (1 sample with 0.029%U over 0.5m).

1.5 GEOPHYSICS

A ground resistivity program was undertaken in 2011 on the Sleek Lake Grid as well as the Granite Grid to Bong Grid corridor. The intent of the program was to map the structure in the basement below the overburden in order to facilitate better targeting of potential mineralized/altered zones.

At Sleek Lake a total of four gradient arrays were completed for 44 total kilometres and two pole-dipole profiles for 6 km. At Bong-Granite five gradient arrays and two pole-dipole profiles were completed for a total of 55 and 6 km respectively. The results outlined linear features in the data, but further evaluation is needed.

1.6 PROSPECTING AND GEOLOGICAL MAPPING

A prospecting and geological mapping program was undertaken over the entire St. Tropez property from June 29, 2011 to August 7, 2011. Traverses were done over areas determined to be high priority through the evaluation of a recent airborne gravity survey and review of historic work on the property. To aid in the mapping a geochemical sampling program was initiated in order to better classify rocks and alteration seen in outcrop. In total, 148.1 line kilometres of traverses were completed and 31 geochemical samples taken. All mapping was done at a 1:25,000 scale. Figure 1.6-1 shows the location of the St. Tropez claim.

1.7 PACKER TESTING

Two single well pressure response tests using pneumatic packers were carried out in two boreholes drilled in the vicinity of the Main Zone deposit as part of the hydrogeological testing program in 2011: one in GW-11-01 located in the vicinity of the proposed construction camp (north of the Main Zone deposit) and one in GW-11-02 located south of the Main Zone deposit. The testing extended from about 219 m to 252 m below ground surface (mbgs). A single packer wireline tool was used to isolate a section of the borehole below the base of the permafrost to obtain bulk hydraulic parameters for that interval. Results of the tests provided information on the estimated hydraulic conductivity values of the deep aquifer system below the permafrost layer, and groundwater pressure values (hydraulic heads) corresponding with the individual test intervals.

In general, all tests resulted in very low injection inflow and a low estimate of apparent hydraulic conductivity, as expected in the deep bedrock environment. The estimated bulk hydraulic conductivity values varied between 9X10-9 to 2x10-10 m/s. The estimated transmissivity values for the intervals tested ranged from 3X10-8 to 5x10-9 m2/s. One test (GW-11-01) was likely conducted within the permafrost section of the borehole. A summary of the transmissivity and hydraulic conductivity values calculated for the two test intervals in boreholes GW-11-01 and GW-11-02 is presented in Table 1.7-1.

Table 1.7-1 Summary of Single Well Pressure Response Test Results

Borehole	Test	Test Interval Top (mbgs)	Test Interval Bottom (mbgs)	Test Interval Length (m)	Transmissivity (m^2/s)	Hydraulic Conductivity (m/s)
GW-11-01	1	218.7	252	33.3	3.00E-08	9.00E-10
GW-11-02	2	224.9	252	27.1	5.00E-09	1.80E-10

1.8 THERMISTER INSTALLATION AND MONITORING

Two deep thermistor strings (one in each borehole GW-11-01 and GW-11-02) were installed to investigate the vertical extent of the permafrost zone in the north and south portions of the Kiggavik Main Zone deposit. Both boreholes were additionally instrumented with a VW piezometer to investigate the hydraulic heads or groundwater pressure of the aquifer underneath the permafrost.

The temperature conditions in boreholes GW-11-01 and GW-11-02 nearly stabilized within approximately four weeks after the installation and temperature readings were taken in order to estimate the permafrost depth. The depth of the permafrost was inferred from temperature profiles measured with thermistor strings. The permafrost depth in the area of the borehole GW-11-02 was estimated approximately 230 m below ground surface (mbgs). The permafrost depth in the area of the borehole GW-11-01 was estimated approximately 280 mbgs. Because the thermistor string (including the VW piezometer) instrumented in this borehole probably did not extend beyond the base of the permafrost. Hence, the linear trend between the temperature obtained from the last node of the thermistor string and the temperature measured at the VW piezometer was extended beyond the last datum to reach the zero degree temperature. The elevation of the base of the permafrost was estimated at approximately between 55 to 65 metres below sea level at both locations. Table 1.8-1 shows the permafrost depths at multi-level thermistors installed in boreholes GW-11-01 and GW-11-02 based on the 2011 observations.

Table 1.8-1 Estimated Permafrost Depths at Multi-Level Thermistor Locations

Hole ID	Site	Deposit Zone	Estimated Permafrost (PF) Depth (mbgs)	Drilled Length (mbgs)	Is EOH* below PF Depth?
END-09-01	Sissons	End Grid	235	432	Yes
MZ-07-01	Kiggavik	Main Zone	220	238	Yes
MZ-09-02	Kiggavik	Main Zone	208	260	Yes
MZ-09-04	Kiggavik	Main Zone	225	270	Yes
AND-07-01	Sissons	Andrew Lake	260	331	Yes
AND-09-03	Sissons	Andrew Lake	253	327	Yes

Hole ID	Site	Deposit Zone	Estimated Permafrost (PF) Depth (mbgs)	Drilled Length (mbgs)	Is EOH* below PF Depth?
GW-11-01	Kiggavik	Main Zone	280	252	Likely No
GW-11-02	Kiggavik	Main Zone	230	252	Yes

*End of Hole

The temperature data collected from the multilevel thermistors indicate a temperature gradient of 0.01 °C/m in borehole GW-11-01, and 0.02 °C/m in borehole GW-11-02. The coldest temperature -6.2 °C was measured at 19.0 mbgs in borehole GW-11-02. In GW-11-01 the lowest measured temperature was -5.4 °C at 38 and 67 mbgs. Figures 1.8-1 and Figure 1.8-2 show the temperature profiles in the boreholes GW-11-01 and GW-11-02, respectively.

The estimated static hydraulic head of the sub-permafrost layer in borehole GW-11-02 was 0.3 mbgs (171.9 m above sea level). The static hydraulic head of the sub-permafrost layer could not be measured in borehole GW-11-01, because the VW piezometer is likely located within the permafrost layer.

Temperature readings taken in June 2011 from previously installed thermistor strings (installed during 2009) at the Kiggavik project site are consistent with previously collected data. The base of the permafrost layer estimated with previously installed instruments in the area of Main Zone deposit correlated with the base of the permafrost elevation measured with the thermistors installed in GW-11-01 and GW-11-02. Figure 1.8-3 shows the temperature profiles in boreholes MZ-09-04, AND-09-03 and END-09-01 located in the areas of Kiggavik Main Zone, Andrew Lake and End Grid deposits, respectively.

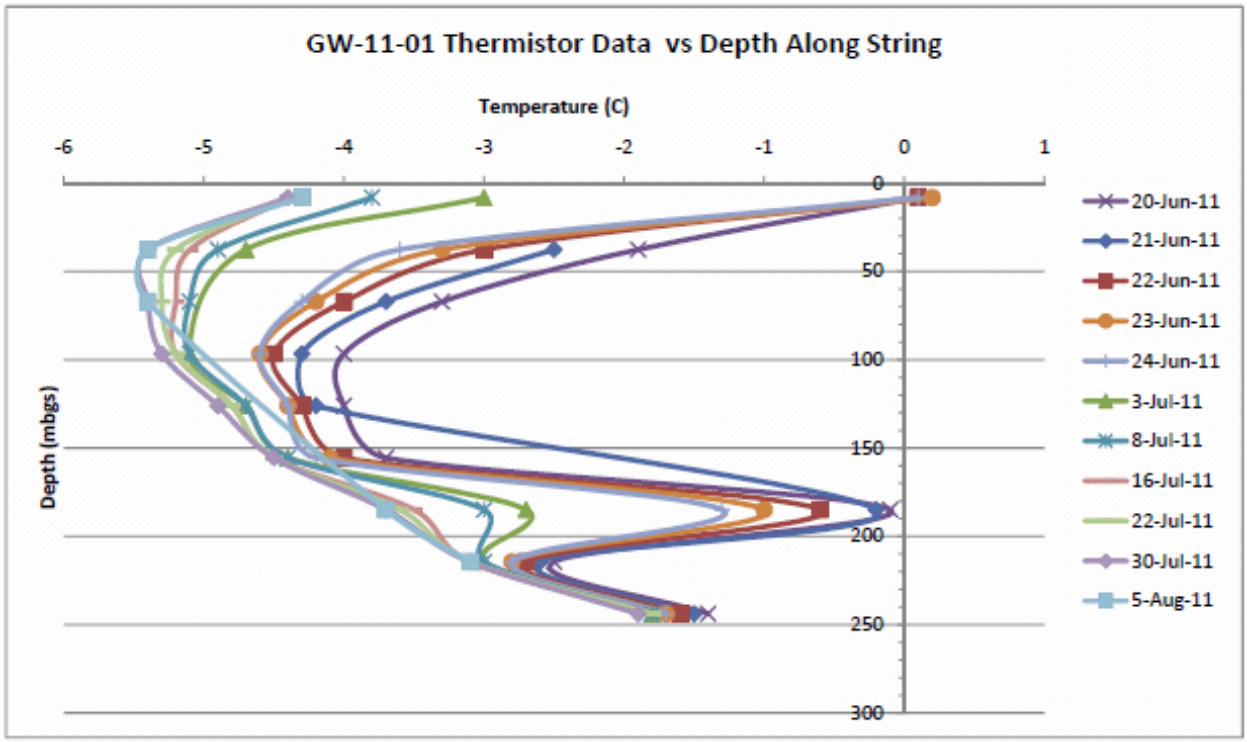


Figure 1.8-1 Temperature Profile in Borehole GW-11-01

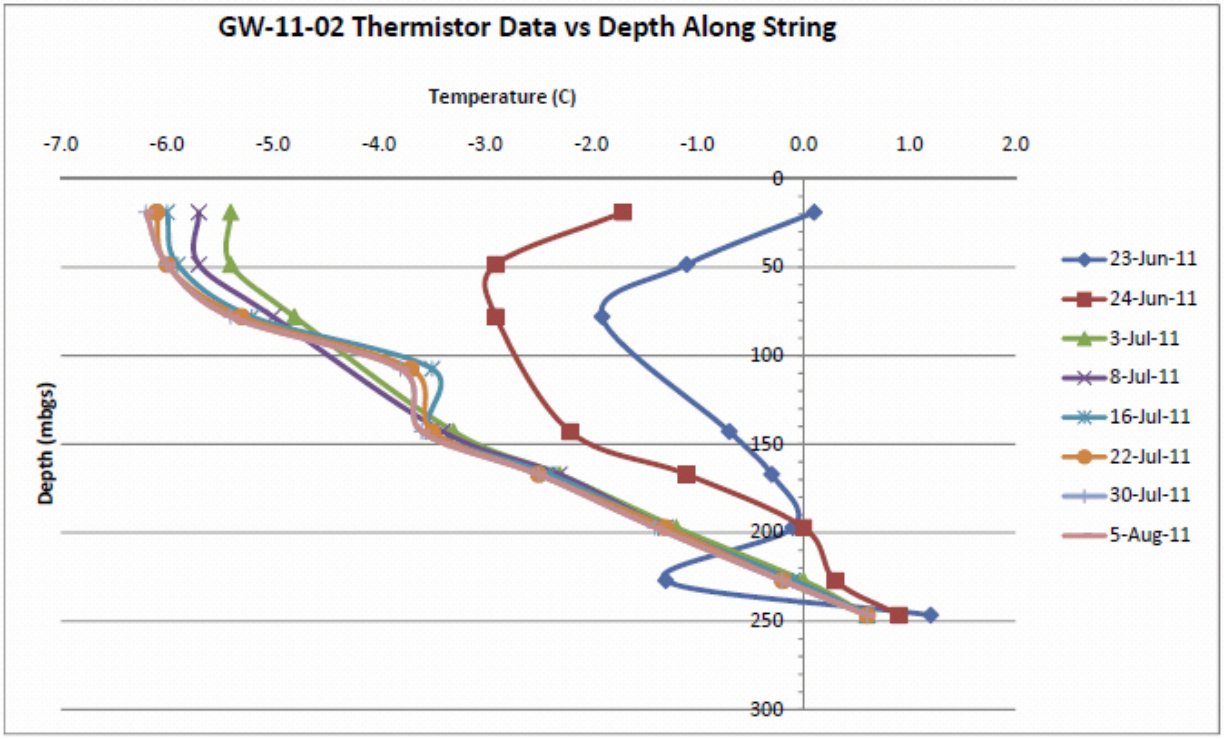


Figure 1.8-2 Temperature Profile in Borehole GW-11-02

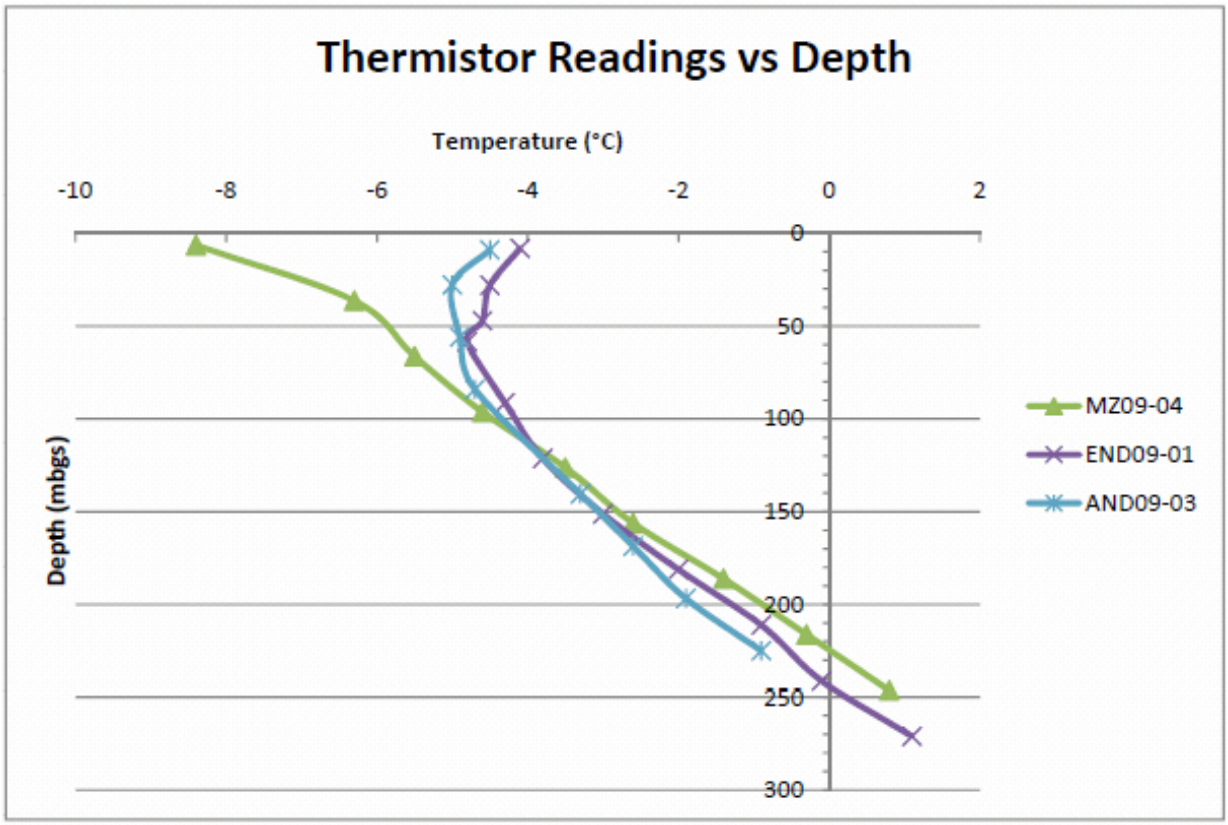


Figure 1.8-3 Temperature Profile in Boreholes MZ-09-04, AND-09-03 and END-09-01

1.9 ENVIRONMENT, HEALTH AND SAFETY MONITORING

The 2011 Environmental, Health and Safety program was implemented by AREVA staff as well as Tangmaarvik Inland Camp who provided a Safety Coordinator for the Kiggavik Project. The Wildlife Mitigation and Monitoring Plan (WMMP) was implemented by Independent Wildlife Monitors from the Baker Lake community, as well as AREVA staff.

Wildlife Monitoring and Mitigation

The WMMP was implemented during the 2011 field program to prevent or reduce any potential adverse effects from exploration activities on wildlife. Independent Wildlife Monitors kept records of wildlife observations from survey stations located around the Kiggavik camp, as well as at the drilling locations. AREVA staff and contractors also recorded incidental wildlife observations.

Commencing July 19, large herds of caribou were migrating within the Project area. The large herds finished their migration through the Project area on August 1, 2011. The largest group of caribou was observed on July 23, which required the suspension of drilling activity. Muskox and wolves were seen near the site on several occasions. During fieldwork, crews also observed several other mammals (hares, arctic fox, and siksiks) and birds (ptarmigan, ducks, geese, cranes and other birds). Further details regarding wildlife monitoring and mitigation measures are provided in Section 3.6 of this annual report.

Environment Protection

All drill sites were subject to gamma radiation surveys prior to and following any drilling activities. If elevated levels of gamma radiation were detected following completion of drilling activities, clean-up activities were conducted followed by another gamma survey to ensure remaining gamma radiation readings were below 1 µSv/h above background. Refer to Section 8 for further details.

One environmental incident (spill) occurred on September 21, 2011 at the Kiggavik Fuel cache. Details of the incident can be found in Section 13.

The Kiggavik Project completed the field season in accordance with AREVA's ISO 14001:2004 certification, which was originally achieved in 2009.

Occupational Health and Safety

There were no lost time accidents in 2011 involving AREVA personnel; however one lost time accident occurred with nine lost days of work involving a contractor. Details are provided in Section 4.1.

In May, Firearms Safety Training was held in Baker Lake. This included two sessions which were open to Baker Lake residents and AREVA personnel with a focus on those who work at the Kiggavik site. On July 21, 2011 the Baker Lake conservation officers gave a wildlife deterrence demonstration at the Kiggavik site with AREVA staff, and the Independent Wildlife Monitors. As well, the conservation officers completed a visual inspection of the Kiggavik camp, and provided some recommendations regarding the incinerator and grey water disposal system to reduce wildlife attractants associated with these camp facilities.

In August AREVA obtained its OHSAS 18001:2007 certification for the Kiggavik Project Safety Management System.

Radiation Protection

A Radiation Protection program was implemented to ensure work activities were performed in a safe and responsible manner and that workers were not adversely exposed to radiation from drilling activities.

The Radiation Protection program was conducted using:

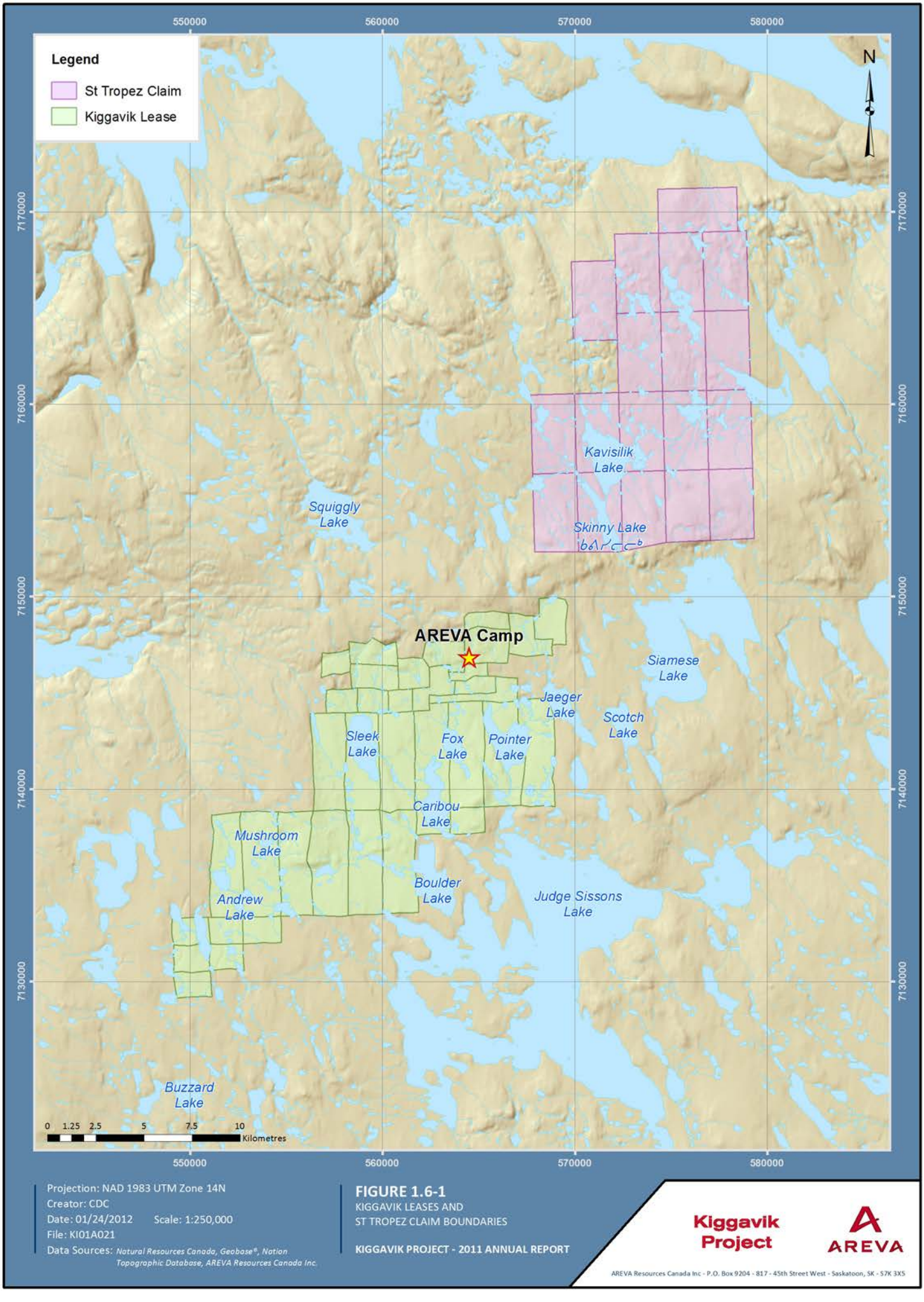
- Gamma dosimetry which included optically stimulated luminescent dosimeters (OLDs) and direct reading dosimeters (DRDs) for personal dosimetry;
- Automess survey instrument for gamma radiation area monitoring;
- Ludlum model 2221 with Trimble GeoExplorer for pre and post gamma surveys;
- Ludlum model 12 survey Instrument / pancake probe and swipes for contamination monitoring;
- Portable Tri-Met Model TM372 sample counters, SKC air pumps and Ludlum Model 2929 Scaler with Model 43-10-01 Scintillation Detector for radon progeny and long lived radioactive dust (LLRD) monitoring
- Track etch cups for environmental radon monitoring; and
- 3 Radon Detectors for environmental radon monitoring.

No Code of Practice dosimetry action levels were exceeded during the 2011 field program. Full details of the radiation protection program are provided in Section 4.2.

1.10 ENVIRONMENTAL BASELINE WORK

Baseline studies in 2011 were conducted to provide additional information for the Draft Environmental Impact Statement (DEIS) which was submitted to the Nunavut Impact Review Board (NIRB) December 20, 2011. The studies conducted in 2011 include:

- Terrestrial wildlife - winter survey of the potential road routes
- Aquatic - Bathymetry and fish habitat study of four potential barge dock site locations on Baker Lake
- Atmospheric - Air quality monitors which monitor TSP, PM2.5, PM10, metals and radionuclides were in operation throughout the Kiggavik field season
- Airborne alpha emissions – Three site airborne alpha dosimeters were installed. One each were placed in Baker Lake, Kiggavik Site and Sissons Site



Projection: NAD 1983 UTM Zone 14N
Creator: CDC
Date: 01/24/2012 Scale: 1:250,000
File: KI01A021
Data Sources: *Natural Resources Canada, Geobase®, Nation Topographic Database, AREVA Resources Canada Inc.*

FIGURE 1.6-1
KIGGAVIK LEASES AND
ST TROPEZ CLAIM BOUNDARIES

KIGGAVIK PROJECT - 2011 ANNUAL REPORT

Kiggavik Project

AREVA

AREVA Resources Canada Inc - P.O. Box 9204 - 817 - 45th Street West - Saskatoon, SK - S7K 3X5