Kiggavik Project
Final Environmental Impact Statement

Tier 3 Technical Appendix 10B: Spill Contingency and Landfarm Management Plan

September 2014

History of Revisions

Revision Number	Date	Details of Revisions
01	December 2011	First Issue with Draft Environmental Impact Statement
02	September 2014	Issued for Final Environmental Impact Statement

A management plan is a living document which is continually reviewed and revised throughout the life of the Project to ensure it meets health, safety, and environmental performance standards. This process of adaptive management and continual improvement (Tier 2, Volume 2, Section 17) is consistent with the Inuit Qaujimajatuqangit (IQ) principles of Qanuqtuurunnarniq *being resourceful and flexible to solve problems* and Pilimmaksarniq *maintaining and improving skills through experience and practice.*

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Abbreviations

% ..... percent

AANDC ..... Aboriginal Affairs and Northern Development Canada

Admin .....Administrative

APR ..... Air Purifying Respirator

ARC ..... AREVA Resources Canada

CEPA .....Canadian Environmental Protection Act

CCME ..... Canadian Council of Ministers of the Environment

DF .....Department of Fisheries and Oceans

EC .....Environment Canada

e.g. .....example

ERAP ..... Emergency Response Assistance Plan

ERT .....Emergency Response Team

FEIS..... Final Environmental Impact Statement

GN ..... Government of Nunavut

HEPA..... High Efficiency Particulate Air

Hrs ..... hours

INAC .....Indian and Northern Affairs Canada

KIA .....Kivalliq Inuit Association

Kg ..... Kilogram

Km ..... Kilometre

L..... Litre

Lb..... pound

l/hr..... litre per hour

M..... Meter

ML..... Million Litres

MSDS ..... Material Safety Data Sheet

NT-Nu ..... Northwest Territories-Nunavut

NWB ..... Nunavut Water Board

OHF ..... Oil Handling Facility

OPEP ..... Oil Pollution Emergency Plan

PCB ..... polychlorinated biphyl

Plan ..... Spill Contingency and Landfarm Management Plan

PPE ..... Personal Protective Equipment

QM ..... Quantum Murray

RCMP ..... Royal Canadian Mounted Police

SCBA ..... Self Contained Breathing Apparatus

SHEQ ..... Safety, Health, Environment and Quality

SOPEP ..... Shipboard Oil Pollution Emergencies Plan

Sq.m ..... square metre

TBA ..... To Be Announced

TDG ..... Transportation of Dangerous Goods

TMF ..... Tailings Management Facility

TTC ..... Through Transport Club

UOC ..... Uranium Ore Concentrate

1 Introduction

The AREVA Resources Canada Inc. (AREVA) Spill Contingency and Landfarm Management Plan (Plan) has been developed to facilitate efficient cleanup of potential land-based spills, releases, or discharges related to the Project. This Plan is conceptual in nature and will be finalized during the licensing phase of the Project. This Plan is intended to be reviewed and implemented in concert with Technical Appendix 10C - Emergency Response Plan. Local residents want assurance that AREVA is properly prepared in the event that an accident occurs at the mine site, along the road route between Baker Lake and the Kiggavik site, or during shipping of materials, that may result in a spill of hazardous materials to the environment (EN-BLOG Dec 2010[1], EN-KIV OH Oct 2009[2], IQ-CI09 2009[3], EN-KIV OH Oct 2009[4]).

This Plan applies to the Kiggavik Project located approximately 80 km west of Baker Lake, including the Sissons mining area, and all access points between the mine site and Baker Lake. For information regarding spill contingency and response strategies during shipping of materials to Baker Lake, refer to Technical Appendix 2J- Marine Transportation Plan.

This plan will be submitted to the Chief Environmental Protection Officer prior to the completion of licensing.

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[1] EN-BLOG Dec 2010: *What happens if there is a spill?*

[2] EN-KIV OH Oct 2009: *If there is a spill or some kind of accident, do you have plans to fix the problem?*

[3] IQ-CI09 2009: *The risk of fuel spills is also a worry*

[4] EN-KIV OH Oct 2009: *Our concern is with the spills because there is a lot of wildlife such as polar bears, seals, caribou, and so on. Do you have a management plan to deal with spills?*

1.1 Purpose and Scope

The primary objective of the Plan is to help prevent or reduce the potential of spills of pollutants and prevent, reduce, or eliminate any adverse effects that may result. As such, this Plan provides information and guidance on actions important for the prevention of spills and procedures to detect and respond to spills. As well, this Plan outlines procedures and best practices for managing the contaminated soils landfarm.

Continually planning and preparing for the future is one of the four *maligait* or main laws which contribute towards 'living a good life' (Tagalik 2012). Inuit stakeholders exemplified this *maligait* in questions about AREVA's spill response planning (EN-CI NIRB May 2010[5], EN-CH OH Oct 2012[6]). Community members require assurance that measures are being taken to prevent spills and that AREVA is prepared to successfully respond to one should it occur (EN-AR KIA Apr 2007[7], EN-BL NIRB April 2010[8]). To address these concerns, AREVA has prepared this Plan.

This Plan is supported by the following Technical Appendix documents:

- Environmental Management Plan – Appendix 2T
- Hazardous Materials Management Plan – Appendix 2U
- Marine Transportation Plan – Appendix 2J
- Waste Management Plan – Appendix 2S
- Emergency Response Plan – Appendix 10C

[5] EN-CI NIRB May 2010: *Concerns over accidents and malfunctions from shipping and impacts to land and wildlife, which people live off*

[6] EN-CH OH Oct 2012: *There have been big spills in B.C. and Florida. What do we have in place if we have a spill during shipment in such a harsh environment?*

[7] EN-AR KIA Apr 2007: *Suppose something spills. How would you clean it or store it?*

[8] EN-BL NIRB April 2010: *Concerns over potential spills and accidents onto the land and water. How will this be handled and planned for?*

For details on marine spills, Oil Handling Facility (OHF) management at the Baker Lake port facility, and Shipboard Oil Pollution Emergencies Plan (SOPEP) requirements for the Kiggavik Project, refer to Technical Appendix 2J – Marine Transportation Plan.

1.2 Regulatory Framework

This Spill Contingency and Landfarm Management Plan has been developed to ensure AREVA respects all applicable laws, regulations, and requirements of federal and territorial authorities.

- Environmental Code of Practice for Aboveground and Underground Storage Tanks Systems Containing Petroleum and Allied Petroleum Products, 2003, CCME
- Storage Tanks Systems for Petroleum Products and Allied Petroleum Products Regulation 2008
- National Fire Code 1995
- *Territorial Lands Act* 1985
- Territorial Land Use Regulations
- *Canada Oil and Gas Operations Act* 1985
- *Canadian Environmental Protection Act*
- *Fisheries Act*
- *Transportation of Dangerous Goods Act* and Regulations
- TP12402 – Oil Handling Facilities Standards, 1995, Transport Canada
- *Canada Shipping Act* Response Organizations and Oil Handling Facilities Regulations
- *Arctic Waters Pollution Prevention Act*
- *Environmental Protection Act*
- Spill Contingency Planning and Reporting Regulations
- *Nunavut Waters and Nunavut Surface Rights Tribunal Act* 2002
- *Nunavut Environmental Protection Act*
- Nunavut Spill Contingency Planning and Reporting Regulations

All proposed storage facilities will be designed, constructed, and operated according to the regulations and protocols outlined in the above documents. Information pertaining to the Baker Lake Oil Handling Facility (OHF) and associated Oil Pollution Prevention and Emergency Plan (OPEP) is summarized in Section 4.3 of this Plan with further detail provided in the Technical Appendix 2J - Marine Transportation Plan.

1.3 Revisions to Plan

Since this Plan was prepared during the Project planning stage, it will be updated prior to the completion of the licensing phase and subsequently updated periodically to reflect Project specific protocols, teams, and management contact information, once established. Specifics regarding operational differences between fuel storage facilities will be developed upon completion of detailed engineering and presented at the licensing phase.

This response plan will be reviewed by the Facility Supervisor, the Environment Health and Safety (SHEQ) Group and the General Manager, Kiggavik Project on an annual basis and updated as required to keep it current and consistent with regulatory and procedural changes. A management plan is a living document which is continually reviewed and revised throughout the life of the Project to ensure it meets health, safety, and environmental performance standards. This process of adaptive management and continual improvement (Tier 2, Volume 2, Section 17) demonstrates the Inuit Qaujimajatuqangit (IQ) principles of Pilimmaksarniq *maintaining and improving skills through experience and practice* and Qanuqtuurunnarniq *being resourceful and flexible to solve problems* (Nunavut 2008). A history of revisions will be located at the front of this Plan.

Any changes and/or amendments to the Plan will be submitted to the Chief Environmental Protection Officer, Nunavut Water Board (NWB), Aboriginal Affairs and Northern Development Canada (AANDC), and the Kivalliq Inuit Association (KIA).

The existing Kiggavik Site Spill Contingency Plan in use during the current exploration phase at the Kiggavik Project is included as Attachment C. This Plan is updated annually and provided to regulatory authorities.

1.4 Emergency Response Team

Environmental Emergency Response will be a joint responsibility of the Safety and Environment Group. They will ensure the necessary steps are taken for adequate response and reporting of spills for the Kiggavik Project. Procedures that will be created will encompass responsibilities of the person discovering the spill, as well as the responsibilities of the Environment Group and the responsibilities of the Emergency Response Team (ERT) if required.

AREVA will have an adequate number of emergency response personnel trained and available onsite. The Incident Commander will be responsible for coordinating and/or delivering emergency response training onsite. The ERT will participate in regular scheduled training and emergency response exercises to ensure that all members are trained in equipment use and spill response methods.

The ERT members will be trained in emergency identification and currently accepted response action techniques. Training will be related to specific emergency response roles, and will include:

- Emergency chain-of-command;
- emergency response plan training;
- communication methods and signals;
- worker health and safety during emergency interventions;
- emergency equipment and use;
- emergency evacuation;
- offsite support;
- personal protective equipment and clothing;

- response to hazardous materials incidents;
- response to fire;
- wilderness survival training;
- ice and water rescue;
- search and rescue;
- fire response & firefighting techniques;
- spill response procedures and techniques on land, water, snow, and ice, and during all four seasons including marine spill response;
- spill response equipment and materials;
- marine shoreline recovery operations; and
- debriefing.

If required, additional assistance from government agencies such as Environment Canada, the Canadian Coast Guard, Fisheries and Oceans Canada, Transport Canada, or companies specialized in spill response operations will be obtained. For detailed information regarding the Kiggavik emergency response, refer to Technical Appendix 10C – Emergency Response Plan.

1.5 Training

All personnel (AREVA employees, contractors, and visitors) will receive formal orientation upon arrival at the Kiggavik site. The spill contingency awareness plan is reviewed during their orientation by the SHEQ Department or designate including the location of Material Safety Data Sheets, location of spill kits, and additional supplies and tools. Training for spill contingencies consists of alerting personnel to be watchful for leaks or spills and where these are most likely, instruction in the use of the equipment and materials, introduction to the protocol of chain of command, and the legal requirement to report certain spills. Additionally, all personnel are given training in initial spill response methods (first responder), which emphasizes personal safety, containment of the spill, and how to get help.

Routine refreshers are conducted to review the procedures within this plan. As well, safety and response personnel will conduct practice drills at regular intervals to allow field-personnel opportunity to practice emergency response skills. All Emergency Response Team (ERT) members will have the appropriate training to respond to spills of hazardous materials.

2 Spills

A spill is defined as the discharge of a hazardous material out of its containment and into the environment. Potential hazards to humans, vegetation, water resources, fish and wildlife vary in severity, depending on several factors including nature of the material, quantity spilled, location and season. Fuel is the main product that may be spilled and therefore spill response procedures focus on this hazardous material. Other substances that may be spilled include ammonium nitrate, mill process reagents, untreated effluent, and radiologically contaminated materials.

The estimated quantity and rate of contaminant released into the environment may be affected by several factors including size of the storage containment, degree of damage to the containment system, reason for release (e.g. leak, puncture of vessel, leaving a valve open), type of materials being released (e.g. liquid, solid or gas) and environmental conditions surrounding the incident. The form and characteristics of the contaminant are specific to the material in question; various chemicals will be stored and used in liquid, gas and solid forms. Characteristics vary according to the material; it may be compressed, flammable, oxidizing, toxic and/or corrosive.

Chemicals and reagents are assessed prior to being brought to site and precautions taken to ensure they are handled, stored and used safely. Refer to Technical Appendix 2U - Hazardous Materials Management Plan for a description of the different types of materials at the Kiggavik site, dock site and mine site. Included is a description of how these are stored, estimated amounts of usage and a brief description of characteristics. At this time, the detailed specifications for many reagent vessels, piping and tanks are not available. The potential spill of petroleum chemicals including plausible scenarios, clean up and contingencies and storage tank sizes is assessed further in the following chapters.

2.1 Spill Prevention

Contingency measures to prevent spills include routine monitoring systems, continual computerized monitoring controls, visual alarms, free board for ponds, double containment vessels and secondary containment surrounding storage vessels. Multiple barriers are implemented to establish a defense-in-depth whereby multilevel or catastrophic failures would be required to experience a worst case situation where material would be released from a vessel or container in its entirety. On the mill terrace, as a final barrier if contingency measures are not adequate, surface drainage ultimately reports to the Tailings Management Facility, thus effect on the environment of any on-site spill is anticipated to be minor. The potential release of materials beyond the project footprint during transport is discussed in Technical Appendix 10A - Transport Risk Assessment.

Regarding transport of materials from the port facility to the Kiggavik site, controls will be implemented to reduce road accidents and thus limit the potential occurrence of spills on roadways. An enforced speed limit will be implemented to ensure safe driving. Roads will be maintained by

AREVA on a regular basis to ensure they are in good condition, including grading, snow clearing, and spreading of sand in the winter.

AREVA recognizes that severe winter whiteout conditions may have an effect on potential risk of spills. A policy will exist to cease or curtail work dependent on weather conditions to minimize the potential for a spill. For example, AREVA is aware of the possibility of sudden changes in weather (EN-AR OH Nov 2013[9]) such as the onset of whiteout conditions, and as such, emergency shelters will be situated approximately every 10km on the Kiggavik-Baker Lake access road. Individuals driving along the road will be required to take refuge in emergency shelters situated along the roads as required. Supplies will be adequate to maintain refuge for 10 days. There will also be supplies in the shelter and in the transport vehicles for initial spill response. All vehicles will be equipped with radio communication to sites and in the winter, they will be traveling in convoys for additional protection. There will also be strategically located spill response gear at the Kiggavik site, Sissons site and the Baker Lake Dock site, as shown in Technical Appendix 10C - Emergency Response Plan to minimize response times to potential spill sites. The specific location of these sites and specific inventory of spill response materials will be identified during licensing.

2.2 First Responder

The person who spills or is the first person to observe the spill is the first responder. Initial and immediate responsibilities of the first responder is to ensure personal safety, identify and contain spilled materials if possible, report the spills to the Facility Supervisor and/or SHEQ Department.

2.2.1 Safety of Responders

In the event of a spill or other environmental emergency, the health and safety of personnel involved is paramount. As such, all actions performed as part of the spill response must only be undertaken if they can be conducted in a safe manner. If an action cannot be undertaken safely or if personnel are not adequately trained or equipped to respond to the spill, it is necessary to evacuate all personnel to a safe zone. At this point, the emergency response team (ERT), with the appropriate resources to manage the spill safely and effectively, will assume command of the incident.

[9] EN-AR OH Nov 2013: *Baffinland ran into a problem when 4 pick-ups got stuck in stormy weather on road. Distance between shelters were too far and survival packs carried in pick-ups were not adequate*

2.2.2 Identifying, Containing and Reporting a Spill

Identification of the material spilled is essential to ensure safety precautions are adequate and containment methods will be effective. The material properties must be known in order to assess potential dangers and apply appropriate treatment for injured personnel and determine the appropriate containment measures.

The following procedures are discussed with all site employees during the site orientation to ensure all personnel are knowledgeable and prepared to handle a spill as a first responder:

- Ensure there is no immediate danger to oneself;
- Move upwind of the material;
- Identify the spill substance, determine its source, and estimate volume released;
- Call for help – contact the Facility Supervisor and the SHEQ Department;
- Identify the source of leak and prevent further release if safe to do so; and
- Attempt to contain the spilled material if safe to do so.

If the spilled substance is not known, the quantity spilled is too large to contain, or conditions appear dangerous, contact the Facility Supervisor and SHEQ Department immediately and maintain an evacuation zone around the spill.

2.3 Spill Response

ERT response to a spill invokes the implementation of the Emergency Response Plan as detailed in Technical Appendix 10C. The estimated spill response time is also discussed in this plan. The response organization details the roles and responsibilities of each party involved in the spill. In the event that it is not safe to attempt a cleanup effort internally, the Incident Commander will inform the Site Commander who will coordinate additional external assistance.

Upon notification of a spill, the Facility Supervisor (or designate) and SHEQ Manager (or designate) shall:

- Notify the ERT if they are required and have not been notified yet;
- Proceed to the scene of the spill to advise and assist. The Incident Commander assumes responsibility over the spill scene and directs the Emergency Response Team;
- The responders shall attempt to stop further spillage and contain the spilled material if safe to do so;
- Interview the individual who discovered the spill noting their name, time discovered, details on how the spill occurred, and any actions taken by the individual to stop the spill;

- Document the spill by completing the Spill Report Form (see Attachment B) and contacting the 24-hour Spill Line immediately (see Section 2.5.2 for Reporting Requirements); and
- Within 30 days of the spill, ensure a written detailed report is prepared for submittal to required regulatory agencies (see Attachment A).

The emergency response team shall:

- Position themselves upwind of the spill;
- Determine what has been spilled;
- Consult the Material Safety Data Sheet (MSDS) for the product in order to determine the appropriate personal protective equipment and understand the physical properties of what has been spilled;
- Don proper personal protective equipment;
- If the spilled substance is flammable (Gasoline or Jet Fuel), eliminate all ignition sources and shut off machinery in the area;
- Control access to the spill area and barricade the spill area, if necessary;
- If safe to do so, take actions to ensure that the leak or spill has been stopped at the source (i.e. shut off valves, reconnect hoses, etc.);
- Contain spill with appropriate material and equipment (i.e. spill response kit, etc.);
- Transfer material to appropriate containment vessels;
- Minimize the pathways of spilled material to waterways. Use aluminum/non-sparking shovels to dig trenches or make soil and sand barriers or utilize the placement of socks as barriers to contain spill;
- Upon completion of clean up, place contaminated absorbent and associated materials into steel pails or drums for removal from the site. Transport contaminated soils to the designated landfarm area and record volumes and type of contaminant; and
- If a spill has entered flowing water, take a sample immediately upstream of the spill and downstream (e.g.: 50 m, 150 m and 500 m from spill).

2.4 Spill Response Time

When a spill occurs, spill response begins immediately by the personnel who discover the spill. All personnel will have basic training in reacting to a spill situation on site. Transportation workers are trained and have equipment to mitigate spills, which may occur along the route. More information is provided on response times and severe winter conditions in Technical Appendix 10C, Emergency Response Plan, Sections 4 and 11.3.1. This includes discussion and estimated response time for a fully equipped response crew to respond to incidents between Kiggavik and Sissons (<30 min), as well as between Kiggavik and Baker Lake (<90 min).

It is acknowledged that due to potentially severe Arctic climate conditions, response time may be affected. As such, AREVA has taken additional provisions response to a spill is handled as efficiently

as possible. These measures include having spill response equipment at the Kiggavik, Sissons and Baker Lake dock site (Figures 3.3-2, 3.3-3, 3.3-4). Each site will have a supply of spill response equipment. This will allow responders to access equipment efficiently. There will also be emergency shelters situated along the road. These shelters will contain some critical spill supplies and allow drivers to park until the weather has improved. In severe weather, trucks will be required to travel in convoys so if there were a vehicle accident, there would be another person to initiate emergency response.

Emergency response personnel will be trained to handle emergencies such as injuries and spills in all types of weather conditions. Often, exercises and drills, at current sites, include a weather component and weather related complications to ensure personnel gain experience for real scenarios.

Final detailed engineering will allow for detailed control strategies to be implemented, thus ensuring that the designs and mitigations meet or exceed those outlined in the FEIS.

2.5 Reportable Spills

According to the Consolidation of Spill Contingency Planning and Reporting Regulations of the *Environmental Protection Act (*1990), where there is a reasonable likelihood of a spill in an amount equal to or greater than the amounts set out in Table 2.5-1, the spill must be reported within 24 hours to the Nunavut Spill Report Line at 1-867-920-8130.

Table 2.5-1 Reportable Quantities for Spills in Nunavut Territory

Item No.	TDGA Class	Description of Contaminant	Amount Spilled
1.	1	Explosives	Any amount
2.	2.1	Compressed gas (flammable)	Any amount of gas from containers with a capacity greater than 100 l.
3.	2.2	Compressed gas (non-corrosive, non-flammable)	Any amount of gas from containers with a capacity greater than 100 l.
4.	2.3	Compressed gas (toxic)	Any amount
5.	2.4	Compressed gas (corrosive)	Any amount
6.*	3.1, 3.2, 3.3	Flammable liquid	100 l
7.	4.1	Flammable solid	25 kg
8.	4.2	Spontaneously combustible solids	25 kg
9.	4.3	Water reactant solids	25 kg
10.	5.1	Oxidizing substances	50 l or 50 kg
11.	5.2	Organic Peroxides	1 l or 1 kg

12.	6.1	Poisonous substances	5 l or 5 kg
13.	6.2	Infectious substances	Any amount
14.*	7	Radioactive	Any amount
15.	8	Corrosive substances	5 l or 5 kg
16.	9.1 (in part)	Miscellaneous products or substances, excluding PCB mixtures	50 l or 50 kg
17.	9.2	Environmentally hazardous	1 l or 1 kg
18.	9.3	Dangerous wastes	5 l or 5 kg
19.	9.1 (in part)	PCB mixtures of 5 or more parts per million	0.5 l or 0.5 kg
20.	None	Other contaminants	100 l or 100 kg

* also in accordance with Nunavut Spill Contingency Planning and Reporting Regulations

Based on Environment Canada's recommendation, all releases of harmful substances, regardless of quantity are immediately reportable where the release is:

- Near or into a water body;
- Near or into a designated sensitive environment or sensitive wildlife habitat;
- Poses an imminent threat to human health or safety; or
- Poses an imminent threat to listed species at risk or its critical habitat.

For all reportable spills at the Kiggavik Project, the Spill Report Form presented in Attachment A will be completed and forwarded to the appropriate authorities listed in Attachment A within 24 hours. A full investigation of the spill will be conducted by AREVA SHEQ personnel in order to determine cause and implement corrective actions to prevent reoccurrence.

2.5.1 Spill Response Notification

AREVA is committed to notifying all required regulatory and government agencies as soon as possible when a reportable spill occurs. The contact list in Attachment A and the ones listed in the table below updated at the time of licensing. The contact list contains regulatory agency contact information, AREVA contacts, RCMP contacts, and emergency services contact phone numbers.

If there is a spill into a significant waterbody such as Baker Lake, immediate notification by the site commander or the designate will include:

Organization/Authority	Telephone No.	Fax No.
NT-NU 24-Hour Spill Report Line	(867) 920-8130 spills@gov.nt.ca	(867) 873-6924
Hamlet of Baker Lake Representative	TBA	TBA
Baker Lake Health Centre	(867) 793-2816	TBA
Baker Lake Fire Emergency	TBA	TBA
Baker Lake RCMP	(867) 793-0123	(867) 793-2149
Kivalliq Inuit Association (KIA)	(867) 920-8130	(867) 873-6924
Nunavut Water Board (NWB)	(867) 360-6338	(867) 360-6369
AANDC Inspector	(867) 975-4548	(867) 979-6445
Environment Canada, Enforcement Branch	(867) 975-4644	(867) 975-4594
Department of Fisheries and Ocean (DFO) – Nunavut Regional Office	(867) 979-8000	(867) 979-8039
Manager, Environmental Protection, Government of Nunavut	(867) 975-7748	(867) 975-5981
Rankin Inlet Hamlet Office (Senior Adm. Officer)	(867) 645-2895	
Canadian Coast Guard (in the event of a spill to the marine environment)	(800) 265-0237	(519) 337-2498

*additional contacts are listed in Attachment A and notification will be dependent on situation

Internal notification will include:

- General Mine Manager;
- Site Commander;
- SHEQ Manager;
- Environment Coordinator;
- Environment Supervisor;
- Incident Commanders;
- Emergency Response Team;
- Health Centre Nurse; and
- Site Security.

Other departments whose assistance is required will be called upon as deemed necessary.

2.5.2 Reporting Requirements

The following information will be reported to appropriate personnel and agencies following response to a reportable spill, as per Consolidation of Spill Contingency Planning and Reporting Regulations, R-068-93. The required information listed in Spill Report Form in Attachment A include:

- Date and time of spill;
- Location of spill;
- Direction the spill is moving;
- Name and number of contact person at location of spill;
- Type and quantity of contaminant;
- Cause of spill;
- Whether spill is contained or stopped;
- Description of the existing contaminant;
- Action taken to contain, recover, clean-up and dispose of spilled material;
- Name, address and phone number of person reporting the spill; and
- Name of owner or person in charge of, manage or control of contaminants at the time of spill.

The following agencies/people will be notified of the spill and be provided a copy of the completed spill report:

- Government of Nunavut (GN) and Environment Canada (EC) 24-hour spill report lines (within 24hours) by phoneGeneral Manager, Kiggavik Project;
- Manager, Nunavut Affairs and Baker Lake office;
- Facility Supervisor;
- The Nunavut Water Board (NWB) and Indian and Northern Affairs Canada (INAC) request verbal notification as soon as possible, however they will be notified by the spill report line:
  - NWB: 867-360-6338
  - INAC: 867-975-4295;
- A copy of the written Spill Report Form will be submitted to INAC (Water Resources Office and Manager of Field Operations), NWB and EC within seven calendar days of the incident;
- A detailed report will be submitted to INAC, NWB and EC within 30 days; and
- A copy of the Spill Report Form and a detailed report to Kivalliq Inuit Association (KIA).

2.5.3 Spill Site Restoration

Once the site of the spill has been neutralized and the required reporting and spill investigation has been completed, clean-up and remediation of the spill site will be conducted. Steel drums or other

appropriate containers as approved by the SHEQ Manager will be used to contain and transport contaminated soil for removal from site.

Depending on the nature of the spilled contaminant, the soil may be treated for remediation at AREVA's contaminated soils landfarm (e.g. hydrocarbon based spills, sewage spills). Contaminated soil resulting from the spill of hazardous chemicals will be treated as a hazardous waste and shipped to a licensed facility for treatment and disposal (refer to Technical Appendix 2U – Hazardous Materials Management Plan). Temporary storage of contaminated materials is within lined berms. Used sorbent material is burned in the site incinerators.

AREVA will develop site specific remediation for spill areas in coordination with regulatory agencies.

3 Mine Site Information

3.1 Kiggavik Project Location

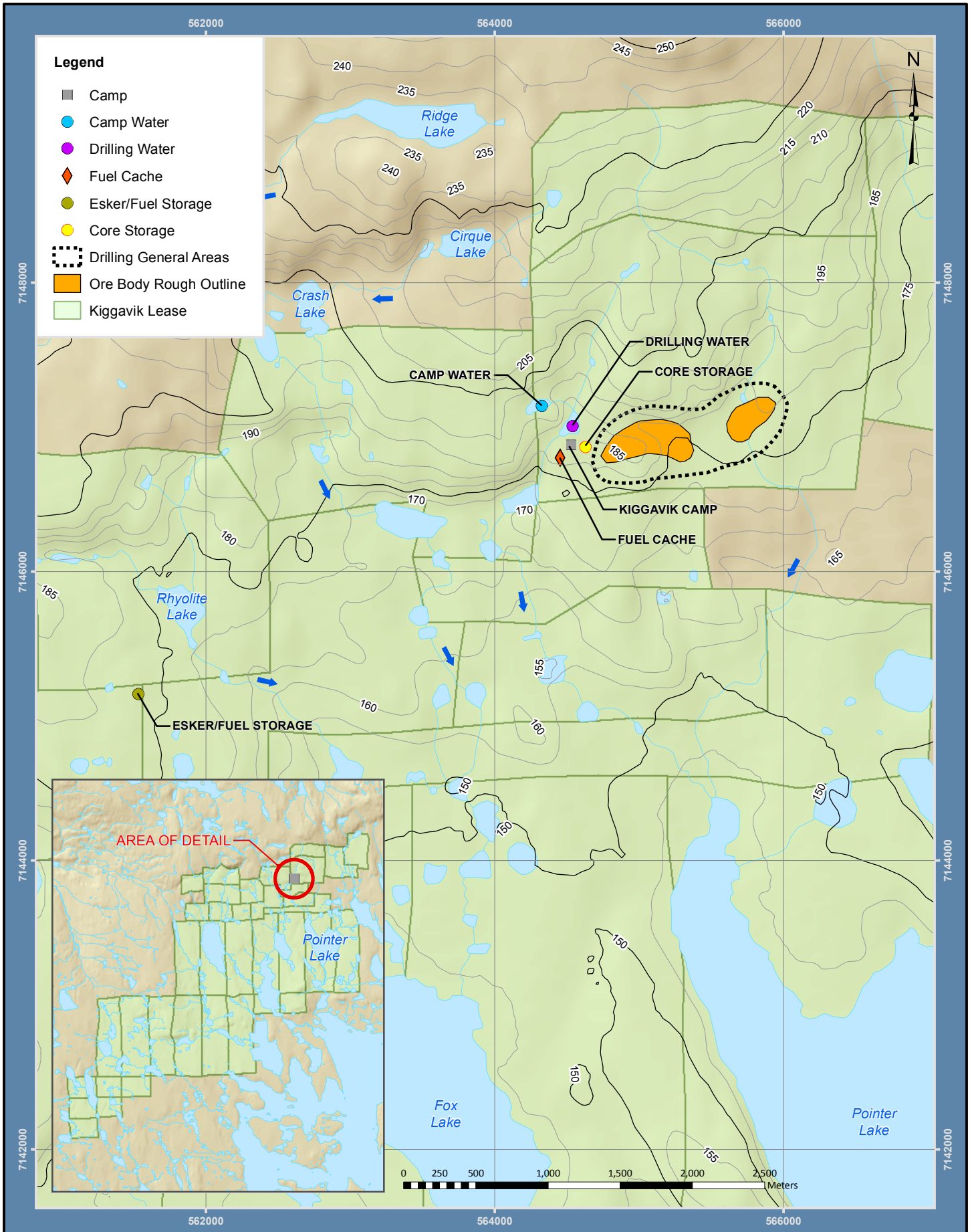
The Kiggavik Project includes two sites; the Kiggavik site located approximately 80 km west of Baker Lake, Nunavut and the Sissons site located approximately 17 km south-west of Kiggavik. All materials and supplies required for construction and operation will be shipped by seagoing cargo vessels to Baker Lake, offloaded and temporarily stored at the Baker Lake port facility, and transported by truck to the mine site via an ice road or all-weather road.

3.2 Pre-development Facilities

An exploration camp currently exists at the Kiggavik site. This camp can accommodate approximately 60 people. Current areas at the Project site where hazardous materials are stored or have the potential to be spilled include:

- storage shed/back-up generator/shop;
- generator building;
- helicopter storage/shop;
- grey water collection area;
- industrial incinerator;
- core storage and core logging tents;
- radioactive materials storage compound; and
- fuel esker containing 8 bulk fuel tanks, three for Jet-B fuel and five for diesel fuel, and fuel drums stored on secondary containment.

Detailed site maps showing current Project exploration facilities are presented in Figures 3.2-1 and 3.2-2.



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Creator: CDC Revised: TL
Date: 09/09/2014 Scale: 1:35,000
File: KI09A020
Data Sources: *Natural Resources Canada, Geobase®, Nation Topographic Database, AREVA Resources Canada Inc.*

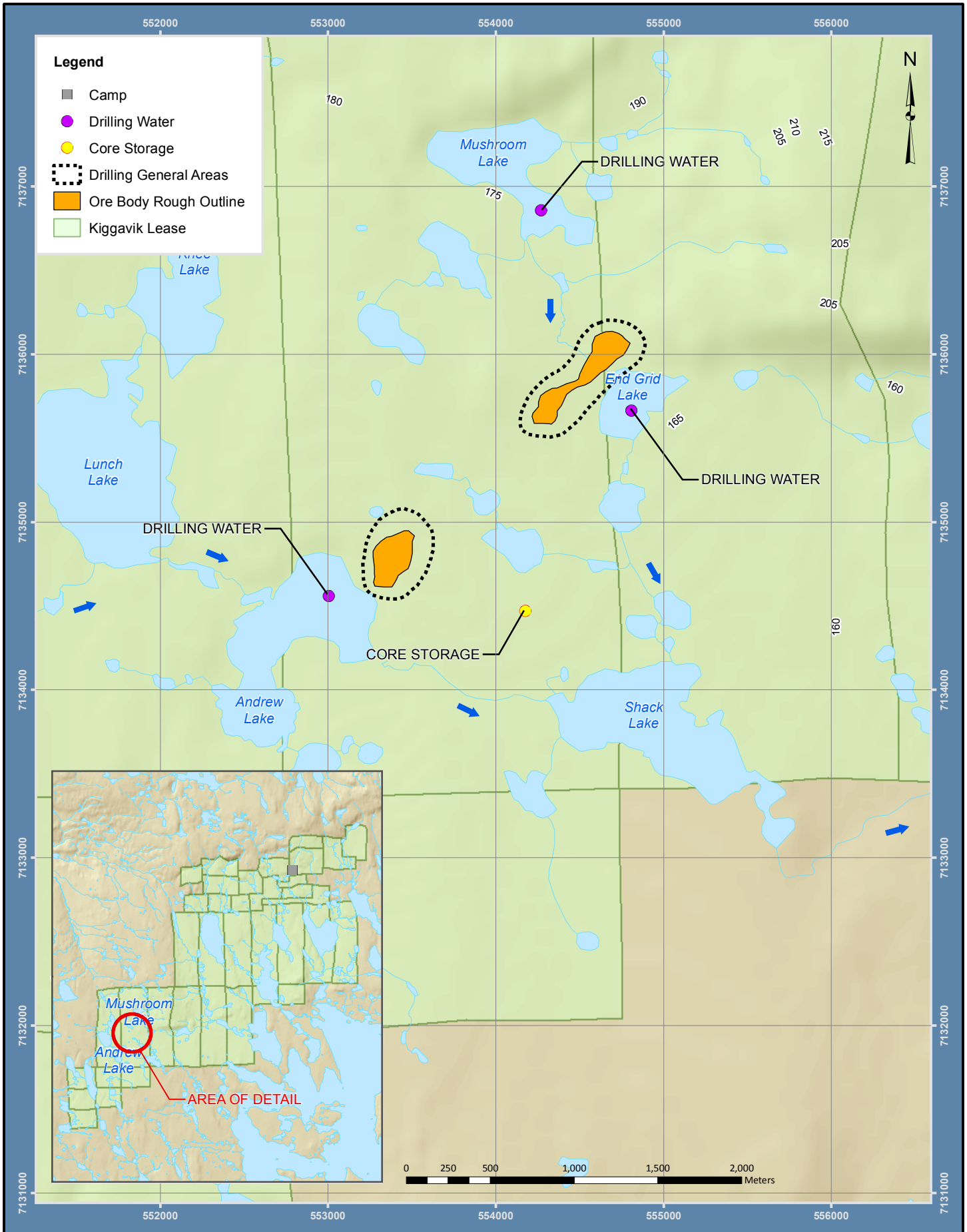
FIGURE 3.2-1
KIGGAVIK MAIN AREA COMPONENTS

ENVIRONMENTAL IMPACT STATEMENT
APPENDIX 10B

Kiggavik Project

AREVA

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



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Creator: CDC Revised: TL
Date: 09/09/2014 Scale: 1:30,000
File: KI09A021
Data Sources: *Natural Resources Canada, Geobase®, Nation Topographic Database, AREVA Resources Canada Inc.*

FIGURE 3.2-2
SISSONS MAIN AREA COMPONENTS

ENVIRONMENTAL IMPACT STATEMENT
APPENDIX 10B

Kiggavik Project

AREVA

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3.3 Mine Operation Facilities

Upon commencement of mine development, further infrastructure will be necessary at the Kiggavik and Sissons sites and the Baker Lake port facility. All areas where the storage, handling, and use of hazardous materials will occur will be designed and built to comply with Federal and Territorial requirements.

3.3.1 Kiggavik Site

The Kiggavik Project and proposed Baker Lake port and access roads are shown in Figure 3.3-1. The Kiggavik site will include the infrastructure listed in Table 3.3-1. The location for the infrastructure components are shown in the Kiggavik site layout (Figure 3.3-2).