

# ADVANCED EXPLORATIONS INC.



## **Abandonment & Restoration Plan Roche Bay Project**

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**NWB License:** 2BE-RBP1116  
**AANDC Permit:** N2012C0013  
**QIA License:** Q13L3C002

February 2014



## **EXECUTIVE SUMMARY**

Advanced Explorations Inc.'s (AEI) Abandonment and Restoration Plan has been designed for the exploration programs currently being planned and undertaken at AEI's projects on the Melville Peninsula. The plan applies to exploration activities undertaken at camp and drill locations and, upon completion of the land use operation and exploration, procedures that will be implemented to allow proper abandonment and reclamation. The plan is effective as of the front-cover date of this document and will be updated throughout the life of the project. The company has received the appropriate permits/licenses, as detailed on the cover page of this report.

Primary access to Hall Beach is typically by scheduled flights from Iqaluit, and charter flights from Yellowknife and various other cities in southern Canada, with helicopter or fixed wing aircraft transport from Hall Beach to the project. Ground transportation in the spring, summer and fall is limited to the minimum required, and is only considered on durable land and tundra when necessary travel has to be undertaken and the weather does not permit helicopter flights. In the winter, snowmobiles and skidded equipment are only used on ground with adequate snow cover.

All structures are temporary and will be removed upon completion of the project. A complete inspection of all disturbed areas will be conducted prior to final closure, with photos taken to document the closure. All appropriate agencies will be contacted once the final clean up is complete and AEI will organize a final site inspection visit with community representatives, Land Use Inspectors and in collaboration with the Nunavut Water Board staff, if requested.

The Abandonment and Restoration Plan as presented in this document deals with the topics of seasonal and final clean-ups of structures and their contents, drilling locations, fuel storage, waste, water, contamination and documentation and inspections.

The plan will be distributed to the head office and site managers directly involved in the project and hard copies will be available on site for all personnel to review. Additional copies and updates of this plan may be obtained via email at [jennifer@advanced-exploration.com](mailto:jennifer@advanced-exploration.com).

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## **Introduction**

Project infrastructure typically consists of removable tents and small plywood buildings. All structures are temporary and will be removed upon completion of the project.

Primary access to Hall Beach is typically by scheduled flights from Iqaluit, and charter flights from Yellowknife and various other cities in southern Canada, with helicopter or fixed wing aircraft transport from Hall Beach to the project. Ground transportation in the spring, summer and fall is limited to the minimum required, and is only considered on durable land and tundra when necessary travel has to be undertaken and the weather does not permit helicopter flights. In the winter, snowmobiles and skidded equipment are only used on ground with adequate snow cover.

The following plan applies to exploration activities to be undertaken at the project area. Upon completion of the land use operation and exploration, the following steps and procedures will be implemented to allow proper abandonment and restoration of the area.

## **Seasonal Abandonment and Restoration Plan**

### ***Buildings and Contents***

Any tent structures will be secured for the winter with all equipment (stoves, kitchen gear, office, showers, etc.) left on site. Any camp will be secured and minimal food (including canned food) will be left on site.

### ***Drilling***

Drill return will be filtered through a baffle system where possible or allowed to settle in natural depressions to remove cuttings. Drill cuttings from the baffle system will be placed into any washout areas around their source drill holes. Cuttings that settle out will be left in place and allowed to dewater naturally. Overflows will be captured using sand bags and left in place to filter over a number of days. Calcium chloride will be the only drill additive used during the program and kept on tarps.

Restored areas will be covered with peat moss to help with natural re-vegetation of the site. A control group of holes will not be so remediated in order to get a better idea of the effect peat moss has in contributing to soil restoration.

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Drill equipment will be removed from individual drill sites, dismantled, packaged and stored along with its ancillary equipment and rods at a central location. The drills will be left on solid ground until the following season. All drill locations will be inspected immediately upon completion of each drill hole, with all waste collected and taken to camp for incineration or removal to an approved disposal location. All drill holes will be backfilled and restored prior to seasonal closure.

The sites will also be inspected for soil contamination. All inspections will be documented with photos. Before and after photos will also be taken of all drill sites.

***Fuel Storage***

A thorough inspection of full fuel drums as well as an inventory of all fuel drums will be made prior to camp seasonal closure. Empty drums may be maintained for reuse or be returned on sealift voyages for proper disposal. Drums located at any storage area will be placed within secondary containment berms, capable of holding 110% of the total volume stored. The soil of all fuel use, storage and transfer areas will be inspected for contamination. All inspections will be documented with photos.

***Waste***

***Combustible waste***

All combustible waste will be incinerated in a government approved dual chamber, forced-air incinerator throughout the course of the program. Ash will be collected, backhauled on the sealift and disposed of in approved facilities. Once the project is finished, all remaining combustible waste will be burned, with the soil inspected for contamination. All inspections will be documented with photos.

***Non-combustible waste***

Non-combustible waste will be hauled out by sealift throughout the course of the program for proper disposal, or flown out depending on what transportation methods are available at the time. All carriers and receivers of this material will be informed of the need to register with the Government of Nunavut, Department of Environment as well as having proper documentation in the form of a waste manifest.

***Sewage***

All sewage will be incinerated in a government approved dual chamber, forced-air incinerator throughout the course of the program.

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***Grey Water***

All grey water will flow through a grease trap and be disposed of into a natural depression with water flow directly away from surface water bodies. All waste deposits will be backfilled and restored prior to final closure.

***Empty Barrels/Fuel Drums***

Empty barrels/fuel drums shall be reused or taken offsite for proper storage or disposal.

***Water System***

Pumps, tanks and hoses will be drained, dismantled, packaged and stored, with hoses rolled and stored.

***Contamination Clean Up***

Any soils/snow at camp or at the drill sites that may become contaminated will be treated as per the *Oil and Hazardous Material Spill Contingency Plan*. Contaminated soils/snow will be put into barrels and sent to approved disposal facilities. Before and after photographs will be taken to document the contamination and the clean up. The areas will be rehabilitated to their previous standards of human utilization and natural productivity. Any overburden or soil removed will be replaced. The areas will be graded back to their natural contours and re-established to the extent possible with vegetation.

***Documentation and Inspection***

Equipment and temporary structures left on site will be inventoried. A complete inspection of all disturbed areas (drill sites, camp and fuel caches) will be conducted prior to seasonal closure with a full inventory taken at each location. Photographs will also be taken of all of the sites.

**Final Abandonment and Restoration Plan**

***Buildings and Contents***

All reusable buildings and equipment like tents, tent frames, stoves, showers, etc. will be dismantled, packaged and removed from site. Wooden structures will be dismantled, moved and stored. Nails, screws, anchors and other such parts will be recovered and kept where practical, otherwise packaged and flown out to an approved municipal landfill.

### ***Drill Sites and Equipment***

All drills and equipment will be dismantled, packaged and removed from site. At all drill sites, casings will be cut off to ground level. All drill sites, campsites, etc. will be revegetated to the extent practical.

### ***Fuel Storage***

All fuel drums will be removed and the areas where there have been fuel caches will be thoroughly inspected. Any contaminated soil will be treated according to the *Oil and Hazardous Material Spill Contingency Plan*, and photos will be taken of all caches to include in the final report.

### ***Waste***

#### ***Combustible waste***

Once a camp is closed, all remaining combustible waste will be burned and the incinerator will be dismantled and moved to an approved disposal site. The soil will be inspected for contamination. All inspections will be documented with photos.

#### ***Non-combustible waste***

Non-combustible waste will be backhauled for proper disposal, or be flown out depending on what transportation methods are available at the time. All carriers and receivers of this material will be informed of the need to register with the Government of Nunavut, Department of Environment as well as having proper documentation in the form of a waste manifest.

#### ***Empty Barrels/Fuel Drums***

Empty barrels/fuel drums shall be taken offsite for proper disposal.

### ***Water System***

Pumps, tanks and hoses will be drained, dismantled, packaged, and removed from the site.

### ***Contamination Clean Up***

Any soil at the camp, fuel caches or drill sites that has become contaminated will be treated as per the *Oil and Hazardous Material Spill Contingency Plan*. Before and after photographs will be taken to document the contamination and the clean up. The areas will be rehabilitated to their previous standards of human utilization and natural



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productivity. Any overburden or soil removed will be replaced. The areas will be graded back to their natural contours and re-established to the extent possible with vegetation.

***Documentation and Inspection***

A complete inspection of all disturbed areas (drill sites, camp and fuel caches) will be conducted prior to final closure with a full inventory taken at each location. As well, photographs will be taken to document each work area and campsite before, during and after the project is complete. All appropriate agencies will be contacted once the final clean up is complete and we will organize a final site inspection visit with community representatives, Land Use Inspectors and in collaboration with the Nunavut Water Board staff, if requested.


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**John Gingerich**  
**Chief Executive Officer**  
**Advanced Explorations Inc.**

Feb 17 / 14  
**Date**

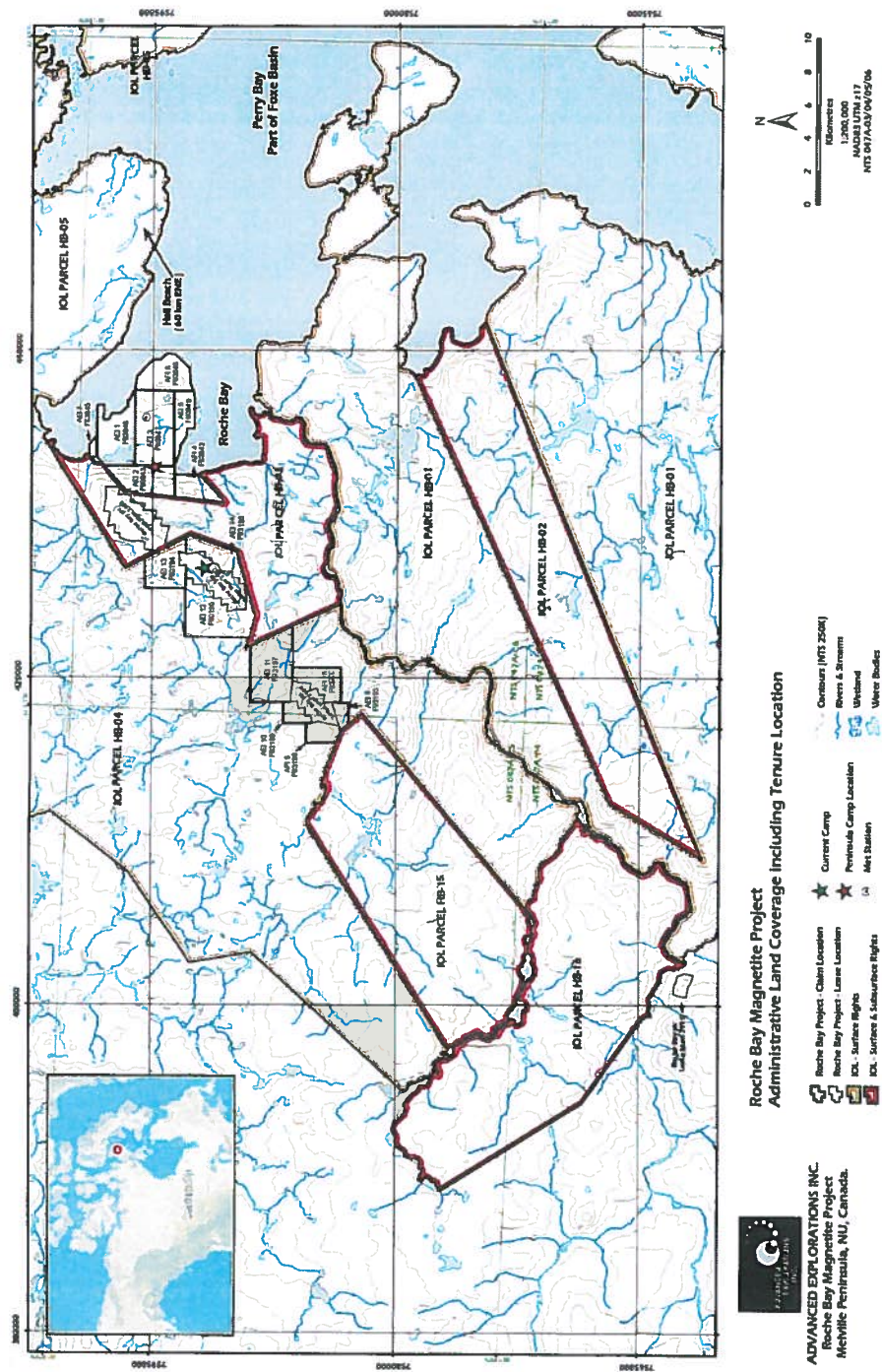
  
**Eric Guo**  
**Director**  
**Advanced Explorations Inc.**

Feb 17 / 14  
**Date**

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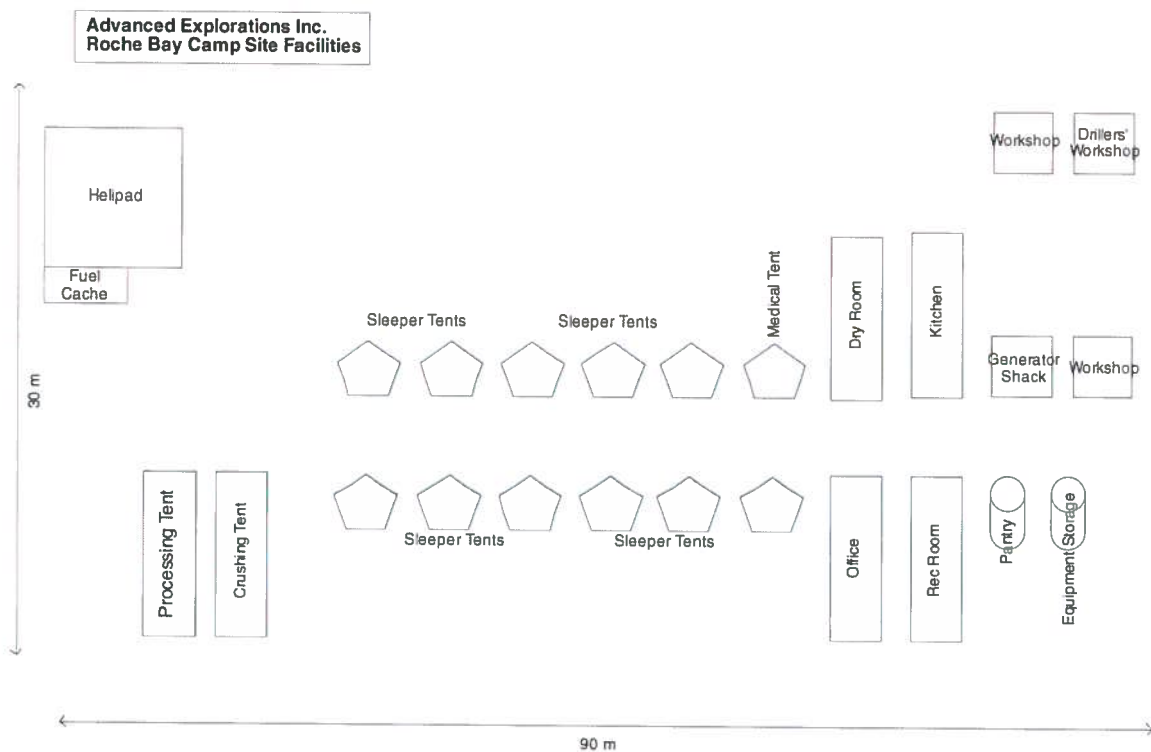
Figure 1: Site Map



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Figure 2: Schematic of Temporary Exploration Camp Layout (not to scale)



**Note:** Diagram is representative of a general site layout only.