



Care and Maintenance Plan Melville Exploration Projects

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ADVANCED EXPLORATIONS INC. PROJECT LICENSES

ROCHE BAY PROJECT

AANDC/INAC: N2012C0013 **QIA:** Q10L3C009 **NWB:** 2BE-RBP1116

TUKTU PROJECT

AANDC/INAC: N2010C0011 **QIA:** Q12L3C009 **NWB:** 2BE-TUK1015

ANIK PROJECT

AANDC/INAC: N2011C0020 **QIA:** Q11L3C006 **NWB:** 2BE-WPP1116



Executive summary (Inuktitut)

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Executive summary (English)

This Care and Maintenance Plan has been developed to ensure the maintenance of optimal conditions at AEI facilities during periods in which the facilities are not in use. Reasons for an exploration camp or cache to remain unused include, but are not limited to: seasonal closures, financial limitations, alternate camp use and site decommissioning.

The primary goals of the Care and Maintenance plan are to:

- Prevent degradation of the environment
- Protect public health and safety
- Protect and maintain the existing facilities
- Provide continued compliance with the Terms and Conditions of permits and licenses

Upon shutdown of the camp, all facilities are secured and winterized to await future use. All personal equipment and perishables are removed; waste is incinerated, and removed; fuel is secured in the berms; equipment such as satellite dishes which are at risk to wind damage are disassembled and secured in a tent if possible, or secured to the bedrock; and all equipment not removed from site is inventoried, and secured. In addition, tents are lashed down or secured to bedrock, with tent doors screwed shut, and any openings taped to prevent snow from entering. One tent is left unlocked for use by traveling hunters in case of emergency. This emergency shelter is clearly visible, as it is the only door not sealed shut with bright red tape.

AEI's facilities are currently unoccupied for the fall and winter seasons. They are typically closed for the season by October, and reopened as early as April or May. During this time, the facilities are monitored by local community members hired by AEI who travel to the site by snowmobile, and report back to the AEI head office regarding the status of the facilities. The inspection schedule is approximately monthly, except when weather and travel conditions are too dangerous.



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1.0 Introduction

The Advanced Explorations Inc. (AEI) Care and Maintenance Plan has been developed to ensure the maintenance of optimal conditions at the AEI facilities during periods of time in which one or more facilities are not in use for an extended period of time. AEI's current facilities include exploration camps, fuel caches and an undeveloped airstrip. Reasons for an exploration camp or cache to remain unused include, but are not limited to; seasonal closures, financial limitations, alternate camp use and camp decommissioning.

The objective of this plan is to maintain the financial and physical integrity of the exploration camp and the surrounding area, and to facilitate a rapid start-up of the camp in the future.

The primary goals of the Care and Maintenance plan are to:

- Prevent degradation of the environment
- Protect public health and safety
- Protect and maintain the existing facilities
- Provide continued compliance with Terms and Conditions of permits and licenses

This plan outlines the general procedures for maintaining a non-operational exploration camp, and fuel cache throughout seasonal closures when the camp is secured and unoccupied over the arctic winter, and during periods of time when the camp is non-operational during the spring and summer seasons.

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2.0 Overview of Exploration Camp Closure

2.1 **Employees and Contractors**

The working structure of exploration camps vary from camp to camp and even within each camp the general dynamics change with project plans. However in general, each of AEI's camps is populated by immediate AEI employees, as well as numerous contractors. These include, but are not limited to:

- Project Manager
- Camp Manager
- Medical and Kitchen Staff
- Drilling Crew
- Helicopter Crews
- Geologists
- Technical consultants
- General Labour and Support Staff

All AEI camps are managed by AEI personnel, however various aspects of the camp are controlled by third party contractors. Kitchen, medical and drilling equipment for example, are often owned and managed by non-AEI personnel. During a camp closure, third parties are responsible for inventorying, securing and arranging the removal of their own equipment as necessary. AEI staff supervises this process and ensures the security and overall condition of the camp and surrounding environment as a whole. AEI is also subsequently responsible for inventorying, securing and arranging the removal of AEI property as necessary.

2.2 Site Facilities

Site facilities vary from camp to camp, depending primarily on the size and project focus. At this phase in the project, site facilities include the following:

- Kitchen tent
- First Aid tent
- Recreation tent
- Showers and laundry tent
- Sleeper tents
- Equipment storage and workshops
- Bathroom facilities
- Generator shack
- Fuel berm
- Helicopter pads



- Incinerator
- Communications equipment (satellite dish)

Upon shutdown of the camp, all these facilities are secured and winterized to await future use. All personal equipment and perishables are removed from site. Waste is incinerated, and removed. Fuel is secured in a berm. Equipment such as satellite dishes which are at risk to wind damage are disassembled and secured in a tent if possible, or secured to the bedrock. All equipment not removed from site is inventoried, and secured. Tents exposed directly to wind are lashed down and secured to the bedrock. All tent doors are screwed shut, and any openings taped to prevent snow from entering the tents. One tent is always left unlocked for use by traveling hunters in case of emergency. This emergency shelter is clearly visible, as it is the only door not sealed shut with bright red tape.

2.3 Safety, First Aid and Communications

Safety and communication is extremely important during the shut-down of a camp. Exploration camps are by definition isolated, and communication with the nearest community is by satellite and hand held satellite phones only. During the shut-down of a camp, the large satellites are removed and secured, thus eliminating telephone and internet communication. Medical equipment must also be removed from camp.

The safety of employees is protected through training and the strategic planning of a shut-down. Most employees hold a standard first aid certificate as a minimum requirement. The AEI Project Manager and Environmental Specialist hold 80 hour wilderness first aid certifications. A contracted first aid attendant is also always present at camp, and is among the last personnel to leave.

Camp shutdown is conducted in a specific order so that medical equipment, communications and food are the last items to be secured or removed from camp. Once communications systems are down, communication with outside persons is by satellite phone only.

Further details on safety can be found in our *Job Safety Plan*.



3.0 Waste Management

One of AEI's primary goals during the shut-down of an exploration camp is to prevent degradation of the environment. Part of achieving this goal is ensuring that no waste is left behind when a camp is closed.

Before a camp is officially closed, every tent is cleaned and all waste material is incinerated or removed. All waste from the bathrooms is also incinerated. Remaining ash, and material that cannot be safely incinerated is stored in 45 gallon drums, and is removed to the AEI laydown area for proper storage and to await removal by sealift. Much of the material that remains at the laydown area for multiple seasons is kept for re-use (for example, 45 gallon drums) or to be available for spare parts.

Further details, and information on our waste disposal techniques can be found in our *Oil and Hazardous Material Spill Contingency Plan*.

4.0 Site Monitoring

AEI's exploration camps are unoccupied over the extended winter season. They are typically closed for the season by October, and reopened when necessary as early as April or May. During the time they are unoccupied, the facilities are monitored by community employees of AEI who travel to the site by snowmobile, and report back to the AEI head office regarding the status of the facilities.

In the winter, travel to the exploration facilities is possible by snowmobile. Once the snow has melted, helicopter is the only method of accessing most facilities. During the snow-free months, should the facilities not be opened for use, an AEI employee travels to the project site to inspect the AEI facilities when possible.

Equipment is available at all facilities to handle possible spills, leaks or minor property damage. The AEI inspector would seek assistance for any major problems.

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5.0 Obstacles to Optimum Care and Maintenance

Operating a mineral exploration camp on the Melville Peninsula of Nunavut comes with a number of obstacles that can complicate the process of caring for and maintaining unused facilities. These include human factors such as unauthorized use, and natural factors such as severe weather and animal activity.

AEI has taken steps to prevent damage to company facilities and will continue to strive to improve this system. Members of the nearest community are hired to monitor the company facilities during closure, with the goal of monitoring unauthorized use and damage due to natural factors. Damage caused by natural factors such as severe weather is reduced by ensuring nothing is left unsecured. All loose pieces of equipment are stored inside the tents where possible, or lashed down to prevent anything from becoming projectiles during the winter. Animal damage is reduced by ensuring all waste and food garbage is removed from the camp, leaving nothing behind that could act as an attractant.

6.0 Start-up Plans

The date of start-up of any facility will vary depending on project plans. Optimally, camps would be re-opened in the spring (April/May). Assuming little to no damage occurring over the winter, camp start-up would be a quick and simple procedure. Tents would have to be cleared of any snow, the doors unlocked and the generator started. Any equipment and supplies would be flown in by helicopter.

Necessary repairs would be conducted on site by qualified personnel.

7.0 Site Specific Facilities

7.1 Roche Bay

The Roche Bay Camp is located 6 km inland from Roche Bay, at 68° 25' 48"N and 82° 47' 13"W. The camp has been at its current location since its construction in 2007. Recent project activities conducted here have been restricted to the utilization and mobilization of equipment stored there. The nearby Roche Bay Cache (68° 26' 52"N & 82° 38' 20"W) is a common storage location with barge access where fuel and equipment can be kept for all AEI projects. The airstrip (68° 28' 2"N & 82° 34' 28"W) is largely unused with a small berm of fuel and small out buildings. Core from the most recent exploration programs is stored at the location of the 1982 camp facilities, at 68° 27' 36"N & 82° 38' 30"W.



The Roche Bay exploration camp consists of tents and facilities to house approximately 60 people, including kitchen, washroom and shower facilities, diesel generators, supply and repair tents, two helicopter pads as well as facilities for the core logging and cutting. Fuels to support the activities include 100 lb tanks of propane, and diesel and jet fuel in 45 gallon drums, with drummed fuel stored in fuel berms. Shutdown procedures include removing all food and incinerated waste material, securing of tents and equipment, and ensuring fuel is properly stored and berms are in good condition.

The beach laydown and storage area consists of a number of berms containing fuel, empty fuel barrels stored for future use, safely stored hazardous materials awaiting sea lift and sea cans containing various pieces of equipment. Shut-down procedures involve ensuring all fuel is properly secured, all berms are in good condition, and all equipment is secured in the sea cans. The Peninsula Airstrip is a mostly unused gravel airstrip on the Roche Bay Peninsula consisting of a meteorological station, a fuel berm, and a few small out buildings. Shutdown procedure occurs similarly to that for the cache, ensuring fuel is properly stored and any equipment is secured.

When not in use, the care and maintenance of the individual facilities ensures they are maintained as they were left upon shutdown, and that the facilities and the environment are not jeopardized through unauthorized use or natural events such as storms or animals. Site visits are conducted by Hall Beach residents hired by AEI, and are conducted approximately once per month during the winter closure period, except during December-January when winter travel may be too dangerous. Site conditions are relayed to AEI and appropriate action is taken as required.



7.1.1 Record of Previous Monitoring – Roche Bay Project

Year	Facilities	Details of	State of	Actions Taken
		Monitoring	Facilities	
2012	Roche Bay Camp,	Community	Minor damage.	Pending 2012
	Airstrip and Roche Bay	members employed	Door removed	summer activities
	Cache	to monitor facilities	from one tent	
		weekly over the		
		winter		
2011	Roche Bay Camp,	Community	Minor damage	Once snow had
	Airstrip and Roche Bay	members employed	to tent canvas.	melted and tent was
	Cache	to monitor facilities	Unknown	accessible, damage
		weekly over the	origin.	temporarily mended
		winter		with tarp.
2010	Roche Bay Camp,	Community	In good shape	None required
	Airstrip and Roche Bay	members employed		
	Cache	to monitor facilities		
		as often as practical		
		over the winter, and		
		monthly during the		
		summer		
2009	Roche Bay Camp,	Community	In good shape.	AEI staff re-
	Airstrip and Roche Bay	members employed	Fuel reported	organized fuel
	Cache	to monitor facilities	removed from	storage to discourage
		as often as practical	cache.	theft
		over the winter		



7.2 Tuktu

The Tuktu Camp is approximately 70 km west of Hall beach, at 68° 57' 55"N and 82° 56' 59"W. The camp has been at its current location since its construction in 2011. The major project activities conducted out of this camp have been drill programs in both 2011 and 2012. The Roche Bay Cache (68° 26' 52"N & 82° 38' 20"W) is the main storage location where fuel and equipment is offloaded and stored for this project.

The Tuktu exploration camp consists of tents and facilities to house approximately 30 people, including kitchen, washroom and shower facilities, diesel generators, two helicopter pads as well as facilities for the core logging and cutting. Fuels to support the activities include 100 lb tanks of propane, and diesel and jet fuel in 45 gallon drums, with drummed fuel stored in fuel berms. Shutdown procedures include removing all food and incinerated waste material, securing of tents and equipment, and ensuring fuel is properly stored and berms are in good condition.

When not in use, the care and maintenance of the individual facilities ensures they are maintained as they were left upon shutdown, and that the facilities and the environment are not jeopardized through unauthorized use or natural events such as storms or animals. Site visits are conducted by Hall Beach residents hired by AEI, and are conducted approximately once per month during the winter closure period, except during December-January when winter travel may be too dangerous. Site conditions are relayed to AEI and appropriate action is taken as required.

7.2.1 Record of Previous Monitoring - Tuktu Project

Year	Facilities	Details of	State of	Actions Taken
		Monitoring	Facilities	
2012	Tuktu Camp	Community	Camp is in	None required
		members employed	good shape	
		to monitor facilities		
		over the winter		

7.3 **Anik Project**

With the exception of the occasional fuel cache, no project facilities exist on the Anik property as of yet, requiring no care and maintenance over the winter season. Fuel caches are inspected upon every visit by company personnel. A record of fuel kept at these caches is reported to regulators as per our terms and conditions.