

# **Project Description**

## **Starfield Resources Inc.**

### **Ferguson Lake Camp**

#### **Background and project description**

Starfield Resources Inc. (Starfield) is exploring a significant nickel, copper, palladium and platinum group metals deposit located in an area of Inuit Owned Lands at Ferguson Lake in Nunavut. Recent exploration has used the privately-owned Ferguson Lake Fishing Lodge located on an island in Ferguson Lake as a base camp. Starfield wishes to establish a new camp on the mainland to provide safer and more convenient access to the current exploration areas and to allow for potential expansion as activity on the site increases. The proposed camp site has been selected to serve the longer term needs of the project and would be expanded if the company proceeds to production.

The camp would comprise portable units to be transported to the site by cat train during the winter of 2005/06. Some of the Starfield-owned buildings from the Ferguson Lake Fishing Lodge would be transported across the lake ice to the new camp location. All Starfield facilities would be removed from the Ferguson Lake Fishing Lodge and any Starfield materials not required at the new camp will be burned or backhauled to Rankin Inlet for disposal. The new camp site will also include areas for fuel, core storage, freshwater and waste water treatment facilities. Freshwater would be drawn by pump from Ferguson Lake to the camp. Starfield will continue to use the airstrip on Ferguson Island to access the site and store excess fuel, only monthly supplies of fuel will be stored at the camp site.

#### **Schedule**

Portable camp units will be transported to the site by Cat train in the winter of 2005/06 and the Starfield-owned buildings from the Ferguson Lake Fishing Lodge will be moved across the lake ice at the same time. The last buildings and equipment from Ferguson Lake Fishing Lodge will be brought across no later than mid-May. Commissioning of the camp will begin once trailers arrived on site with occupancy of the new camp being tentatively slated for July 2006. The camp will be occupied seasonally depending upon the level of exploration activity on the deposit. Pending continued exploration success and sustainable market conditions for metals, the company anticipates eventually making a production

decision that would see the camp expanded and occupied year-round for several years prior to full decommissioning and reclamation when no longer required.

## Structures

The camp configuration will be a 30 person portable camp with integrated facilities for sleeping, cooking, eating, recreation and washing, as well as new structures for water and waste treatment.

Additional buildings being brought over from the old camp will include:

Building	Size (feet)	Amount
Weatherhaven	14*16	3
Weatherhaven	16*24	2
Weatherhaven	20*30	1
Wooden structures	16*32	4
Wooden shop	20*40	1
Storage sheds	16*16	4
C-cans	8*20	3
Portable generator sheds	8*12	2
Safety sheds	8*12	5
Pump sheds	8*12	4

Due to the lack of sea ice, the new buildings will be transported to the Ferguson Lake area from Churchill by train over an existing cat trail which is located 80km inland.

The weatherhavens and safety sheds from the existing camp site will be flown over, and all remaining buildings will be brought over on skids.

## Equipment

The following table lists the specifics of each piece of equipment:

Equipment Type	Number Required	Size	Ground Pressure	Proposed Use
Articulated truck	1	250D	65 psi with maximum load	For future activity
Track type tractor (dozer)	2	LGP	4.14 psi	Move equipment around on camp
Loader (1 track)	1	287B	3.8 psi	Move core boxes and other heavy equipment
Excavator	1	320BL	6.95 psi	Excavate a sump

Snow cat	2	BR 160	minimal	Transportation
Snow mobile	20	Various	minimal	Transportation

## Fuels

The majority of equipment on the site will be diesel fueled. Some small motors will be gasoline powered. Helicopters and fixed wing aircraft will use Jet B fuel. P-50 will be used for heating. All fuel will be stored in 205L structurally sound steel drums with in an appropriate containment system according to regulations, and located 100 m from the high water mark. Spill kits will be available at all fueling sites.

Fuel Type	Container Type	Container Capacity	Total Volume to be Stored On-Site
P-50	Barrels	205L	15,375L
Gasoline	Barrels	205L	112,750L
Jet-B	Barrels	205L (sealed)	681L
Propane	Pressured Tanks	100lb Tanks	100lbs
Oils/lubricants	Plastic containers	10 L	250 L

## Fuel Spill Contingency Plan

See attached Spill Contingency Plan.

## Disposal Methods

All project combustible garbage will be incinerated daily on-site. Non-combustible garbage and ashes from the incinerator will be backhauled to an approved landfill in Rankin Inlet. Waste oil will be either incinerated or backhauled to an approved disposal site.

Hazardous wastes will be backhauled for disposal in approved sites in compliance with regulations.

**Hazardous materials storage** – there will not be any hazardous materials on site.

Camp sewage and grey water will be processed in a Rotating Biological Contactor, or similar unit. Full information of the selected system will be provided before the system is installed.

Water quality in the project area is generally good, but the mineralized areas naturally produce acid rock drainage. A preliminary baseline study in 1999 by

Rescan Environmental Services Ltd. identified several streams in mineralized areas with very poor water quality due to naturally occurring acid rock drainage.

### Transportation

Transportation to the project area is by air from Baker Lake, Rankin Inlet, Yellowknife or Thompson Manitoba. In the winter aircraft land and take off from the lake ice. Helicopters will be used to move drilling equipment and personnel as required. Ground transportation on the camp site will be provided initially by snow machines and quads.

### Components of the Environment Near the Project Area

<b>Type of Species</b> (common name, associated herd, etc.)		<b>Important Habitat Area</b> (calving, staging, denning, migratory pathways, spawning, nesting, etc.)	<b>Critical Time Periods</b> (calving, post-calving, spawning, nesting, breeding, etc.)
<b>Fish:</b> (no fish habitat in the immediate area of the proposed camp or airstrip, but habitat is present within a radius of three kilometres.)	Lake Trout	Shoreline spawning	Fall
	Whitefish	Shoreline spawning	Fall
	Arctic Grayling	Rearing/spawning	Spring/Summer
	Slimy sculpin	Rearing/spawning	Summer
	Ninespine Stickleback	Rearing/spawning	Summer
	Longnose Sucker	Rearing	Summer
<b>Caribou:</b>	Qamanirjuaq	Calving grounds (northeast of the project area)	Early to mid June
<b>Muskox:</b>		Arctic islands, coast and inland areas	Year-round
<b>Raptor:</b>	Peregrine Falcon Rough-legged Hawk	Breeding and nesting in steep cliffs	April to June
<b>Migratory Birds:</b>	Lapland Longspur Savannah Sparrow American Tree Sparrow Robin Hoary Redpoll Sandhill Crane	Breeding and nesting in wetland areas	June to July
<b>Waterfowl:</b>	Long-tailed Duck	Breeding and nesting in river edges, melt water	May to June

	Tundra Swan Greater-White Fronted Geese Canada Geese	areas, grasses and sedges	
Canid family (wolves, wolverines, foxes, etc.):	Arctic Fox Red Fox Wolves	Denning	Year-round
Bears:	Grizzly	Denning	
Rare and endangered plant species	Bald headed eagle	Breeding and nesting in steep cliffs	April to June

The transportation and construction phase of the project to establish a new camp is not expected to have material adverse effects on the environment. The transportation component will take place in the winter, so should have no effect on birds or most wildlife. The presence of wildlife will be monitored and activities adjusted to avoid unnecessary disturbance.

<b>Other:</b>	<b>Presence</b>	<b>Effect</b>
Eskers	None identified in activity areas	No effect
Communities	Baker Lake, 160 km distant, is the nearest community.	No effect
Historical/ Archaeological Sites	Potential presence	A preliminary archaeological assessment suggests that there is minimal risk of impact. Activities will be monitored to avoid adverse effects.

The camp site was intensively examined and tested. Several artifacts were collected and the test results suggest it is unlikely that significant buried deposits remain. No further archaeological investigation is recommended at the camp site. A nearby site with potential archaeological significance was identified and marked for avoidance in future land based activities.

### **Reclamation**

When the camp is no longer required all imported materials will be burned or removed from the site. Any pits or earthworks will be backfilled, recontoured and seeded with a northern blend of seeds. Any disturbed areas such as vehicle

ruts and high traffic areas where vegetation has been worn down will be reseeded with a northern blend of seeds.

**Local Employment** - Local workers will be contracted through either M&T Enterprises in Rankin Inlet and or through Baker Lake Construction in Baker Lake NU. M&T Enterprises will provide for the overland transportation of fuel and equipment. BLCS will provide for and assist in the construction of the camp. Subsequent employment in the camp will be provided for as laborers in the camp and as kitchen and housekeeping staff.