

**5050 Nunavut Ltd.
2008 Winter Trail Detailed Project Description**

Prepared for:

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PROJECT INFORMATION

General Information

Name and Location of Proposed Project

Single use winter trail for a Cat Train from Kugluktuk to 5050 Nunavut's McGregor Lake Campsite.

1. Contact information for proponent(s) and other project contacts.

5050 Nunavut Ltd.

(a subsidiary of Adriana Resources Inc.)

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2. Acts, Regulations, and Guidelines.

- Territorial Land Use Act
- Spill Contingency Regulations
- Environmental Protection Act
- Article 13 – Nunavut Land Claims Agreement

3. List of approvals, permits and licenses required including the authorizing agency, activity

- Kitikmeot Inuit Association Land Use License
- DIAND Land Use Permit
- Nunavut Planning Commission

General Project Description

1. Project need and purpose

5050 Nunavut Limited (5050 Nunavut), presently holds a Kitikmeot Inuit Association (KIA) Land Use License KTL306C016 permitting a camp (with airstrip), staking & prospecting, exploration (geophys-grd/air) drilling (diamonds/ice, etc.) and bulk fuel storage at McGregor Lake (Figure 1-1) to support exploration activities associated with their Mackenzie Igneous Event (MIE) and Bear Valley Uranium exploration projects in the area. The License is valid until July 15, 2008.

As an alternative to setting up a new camp, KIA suggested 5050 Nunavut use an abandoned exploration camp along the north shore of McGregor Lake used historically by other mining companies. 5050 Nunavut requires a Bobcat, Caterpillar, and sled at the campsite to facilitate camp preparation and an ice airstrip construction in support of their 2008 exploration activities. Given the remoteness of the McGregor Lake camp and the lack of an airstrip at the campsite, the company believes the least intrusive way to transport the necessary equipment to the campsite is by winter trail. In early February 2008, 5050 Nunavut proposes to Cat Train the equipment from Kugluktuk to the McGregor Lake campsite, using the Caterpillar to pull the sled loaded with the Bobcat and survival equipment. Two snowmobiles will serve as escort. All equipment will be used at the campsite by the Cat Train crew and camp personnel (to be flown in via helicopter).

Transporting the equipment and personnel by Cat Train requires a Land Use License for a single-use, one-way winter trail from the KIA. The route chosen is outlined on Figure 1-2. The route will extend from Kugluktuk, approximately 100km south to the McGregor Lake campsite and will begin with the cargo and crew being transported over ocean from Kugluktuk to the east bank of the Coppermine River. The route will then proceed south over land to Melville Creek and on to the McGregor Lake Campsite, crossing frozen streams and lakes along the way.

2. Alternatives to the project and alternatives to project components including the proposed route.

A project alternative would be to carry all the equipment by air. This is not feasible as the size of the equipment needed on site is too large to transport by helicopter. It would also not be economical.

An alternate to the proposed route would be along the west side of the Coppermine River out of Kugluktuk, crossing the Coppermine River before reaching McGregor Lake. However, we recognize that the river is the drinking water source for Kugluktuk and therefore is best not crossed if possible. The chosen route would have the Cat Train and crew transported over ocean to 1 km east of the river mouth, where they will continue on to McGregor Lake, staying away from the Coppermine River.

3. Activities Schedule

The Cat Train will depart Kugluktuk in February or March 2008. Weather permitting the trip is expected to take 30 hours of transit time.

4. History of the site

There is no record that this route or any other has been used between Kugluktuk and McGregor Lake.

5. Map of the project site

See Figure 1-1 and 1-2 (attached).

6. Topographic map of the proposed route and project site indicating existing and/or proposed infrastructure, proximity to water bodies and proximity to wildlife and wildlife habitat.

See Figure 1-2 (attached). The proposed route passes over frozen streams and lakes. It does not pass near any known wildlife habitats.

7. Activity Description

The proposed winter trail is a single-use, one-way trail. The route chosen will not require any construction or clearing of land to make way for the Cat Train.

- Road construction:
Not Applicable
- Road operation:
Not Applicable
- Camp use and/or construction:
The Cat Train crew will be taken by helicopter to the McGregor Lake Campsite in the evening and returned to the cat train the following morning.
- Fuel transportation and storage:
Limited amount of P-50 Diesel to fuel Cat Train and daily gasoline fill ups for the snowmobiles.

Transportation**8. Supply Route and Access**

A Cat Train consisting of 1 Caterpillar D6M LPG pulling 1 sled and escorted by 2 snowmobiles will carry a bobcat and survival equipment over snow covered terrain and frozen lakes to 5050 Nunavut's McGregor Lake Campsite. All other equipment is on site at the camp or will be brought in by air.

See Figure 1-2 (attached)

9. Airstrip Use

No airstrip is being used as part of this Cat Train. The construction of the McGregor Lake Campsite ice air strip is outlined in KIA Land Use License KTL306C016. This permit is valid until July 15, 2008 and an application for renewal with a new camp layout and location is being prepared and will be submitted later.

10. Describe expected flight altitudes, frequency of flights and anticipated flight routes.

A helicopter will provide support for the Cat Train. It will be stationed at the McGregor Lake Campsite and will fly directly from the camp to the Cat Train location when required

Camp Site

The use of the McGregor Lake Campsite is outlined in KIA Land Use License KTL306C016. This permit is valid until July 15, 2008 and an application for renewal with a new camp layout and location is being prepared and will be submitted later. The Cat Train crew will be taken by helicopter to the McGregor Lake Campsite in the evening and returned to the Cat Train the following morning.

Equipment

The Cat Train will consist of 1 Caterpillar D6M (with blades) pulling one sled with 2 snowmobiles as an escort. The Caterpillar weighs approximately 15 000kg (33000lbs) and uses low ground pressure (LGP) metal tracks. The sled weighs approximately 2 300kg (5000lbs) empty and uses skis that leave only a 5cm (2 inch) indent in the snow. No photos of the equipment are available.

Equipment Type	Number	Size/Group pressure	Use
Caterpillar D6M with Low-ground pressure tracks (LGP)	1	15, 000kg /4.71 psi	Transportation & site use
Sled	1	2 ,300kg/ 5cm ground indent	Transport Bobcat and survival equipment & site use
Snowmobiles	2	Various/minimal	Transportation
Helicopter (AStar B2)	1	-	Pick and drop of Cat Train crew (support)

Water use

No water will be used during this project.

Waste Water (Grey water, Sewage, Other)

11. Description of the quantities, treatment, storage, transportation, and disposal methods for the following (where relevant)

- **Sewage**

Waste will be minimal and will only constitute personal use. Waste will be deposited in 5gallon buckets with lids and will be disposed of at the nearest community (McGregor Lake campsite), in full compliance with the waste disposal methods outlined in the camp permit. No waste will be disposed of or stored on land.

Fuel

- 12. The types, quantities (number of containers, type of containers and capacity of containers) method of storage, method of containment, location of storage (show on map) and uses.**

Fuels	Number of Containers	Capacity of Containers
Diesel	1	100 gal (~380L)
Gasoline	2	5 gal (~19L)

There will be no fuel cache along the winter trail. The diesel fuel needed for the Caterpillar will be stored in one 100gal (380L) double-walled Tidy-Tank secured to the sled. The gasoline needed for the snowmobiles will be stored in 5 gal Jerry-cans and brought in by the support helicopter when necessary.

- 13. Description of any secondary containment measures to be employed, including the type of material or system used. If no secondary containment is to be employed, please provide justification.**

A Spill kit and drip pan will be carried in the sled and on hand during all refuelling events.

- 14. Description of fuel transfer and the method of refuelling.**

The Caterpillar will be refuelled using a hand pump with a hose fixed to the Tidy Tank. To refuel, the Cat will unhook from the sled, stay on the trail, back up alongside the sled, fuel up, drain the fuel hose, and hook back up. A spill kit will be on hand during refuelling activities and a drip tray will be placed under the hose to protect the ground from any potential drips during transfer. Snowmobiles will be refuelled in the same way except using the Jerry-cans. Absolutely **NO REFUELLING** will take place on ice or water bodies; such activities will only occur on land.

Chemicals and Hazardous Materials

**included but not limited to oils, greases, drill mud, antifreeze, calcium or sodium chloride salt, lead acid batteries and cleaners*

As the duration of this trip is short, no other chemicals and hazardous waste other than those already in machinery will be transported with the Cat Train.

Workforce and Human Resources/Socio-Economic Impacts

- 15. Opportunities for training and employment of local Inuit beneficiaries.**

For the purposes of the Cat Train and the associated camp preparation activities, 5050 Nunavut will hire 3 local workers to move the Cat Train and another 6 workers as McGregor Lake campsite employees through Kikiak Construction in Kugluktuk.

- 16. Workforce mobilization and schedule, including the duration of work and rotation length, and the transportation of workers to site.**

Three members of the crew will mobilize with the Cat Train while the other six members will be flown to the McGregor Lake campsite via helicopter. The Cat Train crew will not spend the evening with the Cat Train. Once the Cat Train is secured, they will be transported by helicopter, flown to the McGregor Lake camp in the evening and return the following morning. The transit of the Cat Train will be followed by work at the campsite. The work on the Cat Train is anticipated to require a one week time commitment (overall duration).

17. Specific hiring policies for Inuit beneficiaries.

The activities associated with the MIE exploration project (e.g. the Cat Train) will employ Inuit residents when possible.

Public Involvement/ Traditional Knowledge

18. Communities, groups, or organizations that would be affected by this project proposal.

The project will contribute to the economic well-being of Kugluktuk community by creating employment opportunities.

19. Description of any consultation with interested Parties which has occurred regarding the development of the project proposal.

A town meeting was held in Kugluktuk on August 2nd, 2007 to discuss 5050 Nunavut's activities in the McGregor Lake area. The table below summarizes other consultation and communication that has occurred with interested Parties.

Community	Name	Organization	Date Contacted
Kugluktuk	Stanley Anablak	Kitikmeot Inuit Association	Since January 2007 Ongoing communications regarding: -5050 Nunavut's MIE project permits renewal for McGregor Lake campsite and proposed cat train -5050 Nunavut's cleanup efforts at the McGregor Lake Camp
Kugluktuk	Community members	General community	August 2007, A community meeting was conducted regarding the history of McGregor Lake Camp, 5050 Nunavut's MIE and BVU exploration projects, and 5050 Nunavut's efforts to clean up the waste left by previous operators
Iqaluit	Jeffrey Holwell	DIAND	Since Nov 13 Ongoing communications regarding 5050 Nunavut MIE project permits: cat train and renewal of

			McGregor Lake campsite land use permit
Gjoa Haven	Phyllis Beaulieu	NWB	Since Nov 13 Ongoing communications regarding 5050 Nunavut MIE project permits: cat train and renewal of McGregor Lake campsite
Kugluktuk	Jimmy Ross Miyok	KIA Employment and Training Officer	Since January 2007 to get resumes of local people available for hire

20. Summary of public involvement measures, a summary of concerns expressed, and strategies employed to address any concerns.

Sixty community members attended the community meeting at the Kugluktuk Arena. An interpreter was in attendance during the meeting to field questions. The presentation portion included description of the camp, location clean up, health and safety, and the future of the project. The community members were impressed with the amount of clean up 5050 Nunavut would be doing. Community elders were concerned with whether their people would be involved in the future of the project. Gordon Addie, President of 5050 Nunavut Ltd, explained that future activities cannot proceed without the involvement of community members. Mr. Addie stressed the importance of traditional knowledge in the future of the project and that 5050 Nunavut is committed to not reproducing the negative impacts previous mining companies have made in the McGregor Lake area. If the project continues on to mine construction intense meetings will be held at that time to determine the scope of a benefit package. Meanwhile the activities associated with the MIE project (e.g. the Cat Train) will continue to employ residents when possible.

21. Description of how traditional knowledge was obtained, and how it has been integrated into the project.

The Cat Train idea was conceived through discussions with Inuit helpers working in the McGregor Lake camp. The trail route and schedule was developed by using their traditional knowledge about the terrain, climate and wildlife. The local Inuits will provide manpower on snowmobiles to accompany the Cat.

22. Discussion of future consultation plans.

Future public consultations will occur as the MIE and BVU exploration projects progress.

PROJECT SPECIFIC INFORMATION

Project Information

There is no built road or trail resulting from this winter trail as it is meant for single use. No earth will be moved and water crossings will be limited to crossing on ice-covered streams and small lakes.

1. Description of any field investigations and the results of field investigations used in selecting the proposed route (e.g. geotechnical, snow pack)

The route chosen was scouted by 5050 Nunavut along with several other potential routes. The route was chosen partly because no construction (moving of soil) would be necessary to allow the Cat Train to pass as well as not requiring any river or major lake crossings. Additionally, the route is located well away from the Coppermine River, protecting the community drinking water supply.

2. Discuss the type and volume of traffic using the road/trail (i.e. type of vehicles and cargo and number of trips annually)

There is no built road or trail resulting from this winter trail as it is meant for single use.

3. Describe the surface preparation, including the use of snow berms or compaction, and any flooding. If flooding is to be used, provide the location of the water source on a map.

Scouting of the trail indicated that no surface preparation would be necessary.

4. Describe the operating time period.

The operating period is single-use, one way from Kugluktuk to 5050 Nunavut's McGregor Lake campsite in February or March 2008.

5. Identify the proposed traffic speed and measures employed to ensure public safety.

Cat Train speed will be approximately 10km/hr and will vary with weather conditions. The route does not pass near any communities.

6. Discuss whether the selected route traverses any fish-bearing water bodies.

No fish-bearing water bodies were identified in the assessment of the existing environment.

DESCRIPTION OF THE EXISTING ENVIRONMENT

Describe the existing environment, including physical, biological and socioeconomic aspects. Where it is appropriate, identify local and regional study areas.

Please note that the detail provided in the description of the existing environment should be appropriate for the type of project proposal and its scope.

Physical Environment

During the operational period of the winter trail (February-March 2008), the mean temperatures in Kugluktuk Nunavut range from -31.7° to -23° C. The McGregor Lake area is characterized by a sub arctic climate with temperature extremes of -40° C in the winter to plus 30° C in the summer. The microclimate is very unpredictable and daily temperatures can change rapidly.

The project area in general have a moderate relief with surface elevations ranging from 270 m to 650 m above sea level. Topography is generally rolling hills and ridges incised by the Coppermine River and its tributaries. The Coppermine River flows through a flat bottomed valley from south to north and spreads out to a wide deltaic plain in the north near the Arctic Coast at Kugluktuk. There are several lakes in the area including McGregor, Stanbridge, and Speers. The ground is permanently frozen to a depth of approximately 300 m with only the upper few meters thawing in summer.

The proposed trail will travel from Kugluktuk to the east of bank of the Coppermine River then proceed South to Melville Creek and on to the McGregor Lake Campsite. Elevation of land along the trail varies between the north end and south end of the land. In the north the land varies between 10 and 120 m above sea level, the land in the south varies between 120 and 580 m above sea level. No major geographic barriers are located between or along the proposed route. The majority of the trail is situated on land and amongst small frozen lakes. The snow cover during the proposed trip will be at an approximate depth of 42 cm.

Biological and Socioeconomic Environment

In the Coppermine River area the predominant vegetation consists of open, very stunted stands of black spruce and tamarack with secondary quantities of white spruce and a ground cover of dwarf birch, willow, ericaceous shrubs, cotton grass, lichen, and moss. Poorly drained sites usually support tussocks of sedge, cotton grass, and sphagnum moss. Low shrub tundra, consisting of dwarf birch and willow, is also common. This ecoregion includes the western half of the Bear-Slave Upland, which consists mainly of massive Archean rocks that form broad, sloping uplands, plateaus, and lowlands. The surface is typical of the bare rock parts of the Canadian Shield. Numerous lakes fill the lowlands. Bare rock outcrops are common, and Dystric Brunisols with some Turbic, Static, and Organic Cryosols are the dominant soils in the Coppermine ecoregion. The soils have formed on discontinuous veneers and blankets

of hummocky to rolling, sandy morainal, fluvio-glacial, and organic deposits. The majority of all plant life will be snow covered during the operational period of the trail.

Characteristic wildlife includes caribou, moose, grizzly and black bear, snowshoe hare, fox, wolf, beaver, muskrat, osprey, raven, spruce grouse, and waterfowl. Land uses include hunting and trapping, fishing, and tourism, however local knowledge indicates these activities are infrequent along the proposed route and in the MIE Project area.. Diamond exploration is a more recent activity along the northern boundary of the region. Three bird species at risk were identified in Nunavut: The Eskimo Curlew (endangered), Peregrine Falcon (threatened) and Ross's Gull (threatened).

During the summer months numerous animal species have been sighted in the general area of McGregor Lake, including caribou, musk ox, grizzly bears, wolves, wolverines, foxes, arctic hare, weasels, field mice, ground squirrels and a few moose. The Bluenose caribou herd calves to the northwest of Kugluktuk and scattered members of the herd can be expected to be spotted during the summer in the Project area. The few birds that live in the area include Peregrine falcons, ptarmigan, and eagles. Ravens and seagulls occasionally come in from the coast. A variety of small birds migrate into the area in the summer as well as ducks, loons and swans. Fish in the lakes are dominantly yellow – fin lake trout. In the rivers the red – fin lake trout predominate with common grayling and very rare pike.

The terrain and vegetation surrounding the project site consists of a subdued topography with small valleys and gently rolling/sloping hills separated by lakes.

The Kugluk Territorial Park is located 15 km southwest of the community of Kugluktuk, around Bloody Falls on the lower Coppermine River. The 10 hectare area contains remnants of Thule winter houses used more than 500 years ago, archaeological evidence of caribou hunting camps of more than 1,500 years ago, Pre-Dorset use of the site more than 3,500 years ago and a rich history of Arctic exploration. With the treeline 50 km to the south, a wide range of wildlife can be found in the area, including grizzly bear, musk oxen, caribou, wolf, golden eagle and bald eagle.

Based on the "Rare Plant Diversity" map published by Natural Resources Canada it is likely that there are approximately 1 to 5 rare plant species found along the proposed trail. Due to the snow cover no impact to any plant species is expected.

IDENTIFICATION OF IMPACTS AND PROPOSED MITIGATION MEASURES

1. Description of the impacts.

Two potential impacts have been identified in Table 1. The first is a potential impact on vegetation due to the possible compression of the plants by the Caterpillar and sled. This impact is rated as Unknown. If compression does occur, the effects will be minimal due to the short duration of the activity, snow cover and the frozen grounds. The potential for compression will be evaluated by performing a post transit survey.

There will be a positive impact on the employment.

2. Description of the potential socioeconomic impacts, including human health.

Expected socioeconomic impacts include a small increase in jobs and revenue for local communities during the transportation of equipment. In addition to the revenue generated, there is an opportunity for the hired staff to become familiar with some components of the exploration program.

3. Description of the potential for transboundary effects related to the project.

The project is not located near territorial, provincial or national boundaries, and as such, no transboundary effects are expected.

4. Identification of any potentially adverse effects of the project proposal on species listed under the *Species at Risk Act (SARA)* and their critical habitats or residences, what measures will be taken to avoid or lessen those effects and how the effects will be monitored.

This project proposal will not result in any adverse effects on species listed under the Species at Risk Act (SARA) and their critical habitats and residences as there are no known occurrences in the general project area during that time of the year.

5. Description of the proposed measures to mitigate all identified negative impacts.

No impacts are expected to occur as the Cat Train will be traveling on ice or on snow covered terrain. In the event of environmental damage en route, such as a hydrocarbon spill or rutting of the land, the affected area will be reclaimed as close as possible to its pre-disturbed state. The route will also be surveyed in the spring for impacts and reclaimed accordingly.

CUMULATIVE EFFECTS

Description of how the effects of this project interact with the effects of relevant past, present and reasonably foreseeable projects in a regional context.

There are no reasonably foreseeable cumulative effects, as the Cat Train will only be active for 30hrs, weather permitting. Abandonment and res

SUPPORTING DOCUMENTS

- **Abandonment and Decommissioning Plan**

See Winter Trail Abandonment and Restoration Plan (2007), provided with this package

- **Emergency Response Spill Contingency Plan**

See Winter Trail Spill and Contingency Plan (2007), provided with this package