

December 19, 2007
Proj # 1436-0701

Nunavut Water Board
P.O. Box 119
Gjoa Haven, NU
X0B 1J0

**Attention: Ms. Phyllis Beaulieu
Manager of Licensing**

Dear Ms.Beaulieu,

Re: 5050 Nunavut Ltd. 2008 McGregor Lake Campsite and 10,000m Mineral Exploration Drilling Program

Franz Environmental Inc. (FRANZ) is pleased to submit this application package for access to Inuit owned land to the Nunavut Water Board (NWB) on behalf of 5050 Nunavut Ltd. 5050 Nunavut, a wholly owned subsidiary of Adriana Resources Inc. (Adriana), wishes to amend and renew its existing NWB Water License 2BE-MC0608. This license originally proposed to establish a new camp at Iceberg Creek along the southwest shore of McGregor Lake. The proposed camp would have been built to accommodate 15 personnel in support of a 3,000m mineral exploration drilling program in their Mackenzie Igneous Event (MIE) and Bear Valley Uranium exploration properties.

At the request of the KIA, 5050 Nunavut proposes to use an abandoned exploration camp (now known as the McGregor Lake Campsite) along the north shore of McGregor Lake. This camp will be enhanced to accommodate 30 personnel in support of a 10,000 m mineral exploration drilling program on their Mackenzie Igneous Event (MIE) and Bear Valley Uranium exploration properties.

This permit application package includes the following items:

1. Kitikmeot Inuit Association Application for Access to Inuit Owned Land
2. INAC Application for Land Use Permit: Class A
3. Nunavut Water Board Water License Application

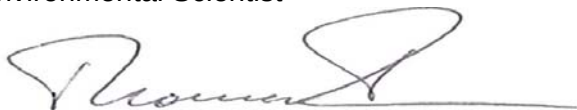
4. 2008 Winter Trail Project Non-Technical Project Description in:
 - a. English
 - b. Inuktitut
 - c. Inuinnaqtun
5. Detailed Project Description
6. Spill and Contingency Plan
7. Abandonment and Restoration Plan
8. Nunavut Water Board Exploration and Remote Camp Questionnaire
9. Nunavut Impact Review Board (NIRB):
 - a. Part 1 in English, Inuktitut and Inuinnaqtun
 - b. Part 2 Project Specific Information Requirements
10. Appendices
 - Appendix A – Contact List
 - Appendix B – Material Safety Data Sheets (MSDS)
 - Appendix C – Spill Report Form
 - Appendix D – Uranium Exploration Plan
 - Appendix E – Nunavut Waste Generator Number
 - Appendix F – Daily Wildlife Log
 - Appendix G – Figures
 - 1-1 Site Location Map
 - 1- 2 Exploration Area 1:50,000
 - 1- 3 Camp Layout
11. DVD-ROM with GIS files of the route and PDF of this package

Please also find enclosed in this package a cheque (\$61) for the necessary permit fees. Any refunds should be forwarded to 5050 Nunavut.

Please feel free to contact us at (604) 632-9941 if you have any questions or concerns.

Yours truly,
Franz Environmental Inc.

Carlos da Ponte, B.Sc., M.A. (cand.)
Environmental Scientist



Thomas Franz, M.Sc., P.Geo.
President

E. (Liz) van Warmerdam, M.Sc., P.Geo.
Senior Contaminant Hydrogeologist

December 19, 2007
Proj # 1436-0701

Lands Office
Kitikmeot Inuit Association
Box 360,
Kugluktuk, NU,
X0B 0E0

**Attention: Mr. Stanley Anablak
KIA Sr. Lands Officer**

Dear Mr. Anablak,

Re: 5050 Nunavut Ltd. 2008 McGregor Lake Campsite and 10,000m Mineral Exploration Drilling Program

Franz Environmental Inc. (FRANZ) is pleased to submit this application package for access to Inuit owned land to the Kitikmeot Inuit Association (KIA) on behalf of 5050 Nunavut Ltd. 5050 Nunavut, a wholly owned subsidiary of Adriana Resources Inc. (Adriana), wishes to amend and renew its existing KIA Land Use License KTL306C016. This license originally proposed to establish a new camp at Iceberg Creek along the southwest shore of McGregor Lake. The proposed camp would have been built to accommodate 15 personnel in support of a 3,000m mineral exploration drilling program in their Mackenzie Igneous Event (MIE) and Bear Valley Uranium exploration properties.

At the request of the KIA, 5050 Nunavut proposes to use an abandoned exploration camp (now known as the McGregor Lake Campsite) along the north shore of McGregor Lake. This camp will be enhanced to accommodate 30 personnel in support of a 10,000 m mineral exploration drilling program on their Mackenzie Igneous Event (MIE) and Bear Valley Uranium exploration properties.

This application package includes the following components in duplicate:

1. Kitikmeot Inuit Association Application for Access to Inuit Owned Land
2. INAC Application for Land Use Permit: Class A
3. Nunavut Water Board Water License Application

4. 2008 Winter Trail Project Non-Technical Project Description in:
 - a. English
 - b. Inuktitut
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11. DVD-ROM with GIS files of the route and PDF of this package

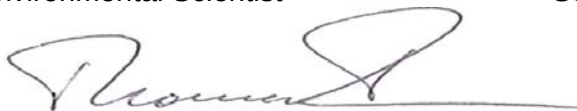
Please also find enclosed in this package a cheque (\$1919.95) for the necessary permit fees. Any refunds should be forwarded to 5050 Nunavut.

Please feel free to contact us at (604) 632-9941 if you have any questions or concerns.

Yours truly,
Franz Environmental Inc.

Carlos da Ponte, B.Sc., M.A. (cand.)
Environmental Scientist

E. (Liz) van Warmerdam, M.Sc., P.Geo.
Senior Contaminant Hydrogeologist



Thomas Franz, M.Sc., P.Geo.
President

December 19, 2007
Proj # 1436-0701

Land Administration
Indian and Northern Affairs Canada
PO Box 100, Building 918
Iqaluit, Nunavut
Canada
X0A 0H0

Attention: Mr. Spencer Dewar
Manager, Land Administration

Dear Mr. Dewar,

Re: 5050 Nunavut Ltd. 2008 McGregor Lake Campsite and 10,000m Mineral Exploration Drilling Program

Franz Environmental Inc. (FRANZ) is pleased to submit this application package for access to Crown Land to the Indian and Northern Affairs Canada (INAC) on behalf of 5050 Nunavut Ltd. 5050 Nunavut, a wholly owned subsidiary of Adriana Resources Inc. (Adriana), proposes to use an abandoned exploration camp located on the north shore of McGregor Lake to support a 10,000m mineral exploration program associated with their Mackenzie Igneous Event (MIE) and Bear Valley Uranium exploration projects in the area. The campsite and many of the proposed borehole location are located on Inuit Owned Land. Thirteen of the forty proposed boreholes are located within 5050 Nunavut mineral claim areas situated on Crown Land.

This permit application package includes the following items in duplicate:

1. Kitikmeot Inuit Association Application for Access to Inuit Owned Land
2. INAC Application for Land Use Permit: Class A
3. Nunavut Water Board Water License Application
4. 2008 Winter Trail Project Non-Technical Project Description in:
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 - 1- 3 Camp Layout
11. DVD-ROM with GIS files of the route and PDF of this package

Please also find enclosed in this package a cheque (\$200) for the necessary permit fees. Any refunds should be forwarded to 5050 Nunavut.

Please feel free to contact us at (604) 632-9941 if you have any questions or concerns.

Yours truly,
Franz Environmental Inc.

Carlos da Ponte, B.Sc., M.A. (cand.)
Environmental Scientist

E. (Liz) van Warmerdam, M.Sc., P.Geo.
Senior Contaminant Hydrogeologist



Thomas Franz, M.Sc., P.Geo.
President

Inuit helpers and expediting:

Kikiak Construction - Kugluktuk, Nunavut - Tel: 867-982-713,

Expediting:

BBE Logistics#18 Yellowknife Airport Yellowknife NT, X1A3T2,
Ph: 867-766-8655, Fax: 867-766-8651,

Helicopter support:

Remote Helicopters, Box 1340 Slave Lake, AB, T0G 2A0
Ph: 780-849-2222, Fax: 780-849-2288 remote@telusplanet.net,

Fixed wing aircraft will be contracted from any of the following:

Air Tindi – Yellowknife NT, (888) 545-6794
Adlair Aviation – Yellowknife NT, (867) 873-5161
Air Thelon – Yellowknife NT, (867) 920-7110
Arctic Air – Yellowknife NT, (867) 873-1210
Arctic Sunwest Charters – Yellowknife NT, (867) 873-4464
Buffalo Airways - Yellowknife NT, (867) 873-6112

First Aid and Cook

1984 Enterprises Inc, Vancouver, BC, Ph: 604-736-8142

Total no. of personnel: 30 No. of person days: 7200

5. Location of activities by map coordinates. Attach **ORIGINAL** maps and sketches.

MAX Lat Min 115	MIN Lat Deg 115	MAX Lat Deg 45	MIN Lat Min 40
MAX Long Min 67	MIN Long Deg 66	MAX Long Deg 17	MIN Long Min 48

Map Sheet No: 86J/1 1, 14, 86O/3,4,6 Inuit Land Parcel No: C053, C060, C061, C062

Coordinate of camp (if applicable) Lat. 115 ° 14 ' 27.353 " W
Long. 66 ° 54 ' 45.96 " N

6. Periods of operation including periods of seasonal shut down and periods for restoration.

Periods of operation. February – October

Periods of shutdown. Winter shutdown will be from November – February. If warranted, one (1) watchperson will stay on site.

Periods of restoration. Restoration will be continuous throughout the operation.

7. Period of access required (up to one or two years for licenses, depending on license level, up to five years for residential/recreational leases and level I and II commercial leases, and up to forty years for level III commercial leases)	Start date July 15 th 2008 	Completion Date July 15 th 2010
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8. Other rights, licenses, permits or leases related to this application. Provide proof of rights or indicate if in the process of applying for rights.

X NTI Subsurface Right

X DIAND Subsurface Right

X NWB Water License

☐ NRI Research License

☐ RWED Tourism License

☐ Explosives Permit

☐ CWS Permit

☐ Other – Please Specify

Previously and currently held permits include:

KIA Land Use License: KTL104C033 (amended July 15th 2006 as KTL306C016)

KIA Land Use License: KTL306C016 (will expire July 15th, 2008)

Nunavut Water Board Water License 2BE-MCG0608

Mineral Claims: GA1-30 & GA39-45, M1 – M11

IOL parcel numbers: C052, C053, C060, C061, C062

A permit for a one-way, single-use winter trail to transport equipment to the campsite from Kugluktuk is currently under review by INAC, KIA, and the NIRB.

9. TYPE OF LAND USE ACTIVITY

Check off the appropriate land use activities.

<i>Mining/Oil & Gas</i> ☒ staking and prospecting ☒ exploration (geophys-grd/air) ☒ drilling (diamond/ice, etc.) ☐ bulk sampling ☐ mine (open pit, undergrd, etc.) ☒ bulk fuel storage ☒ other: mapping	<i>Construction:</i> ☒ camp ☐ building ☐ winter road ☐ all-season road ☐ quarrying ☐ other: _____	<i>Tourism:</i> ☐ tourism facility ☐ outfitting ☐ other: _____
<i>Municipality:</i> ☐ bulk storage of fuel ☐ residential building ☐ commercial building ☐ other: _____	<i>Research:</i> ☐ wildlife/fish/birds/marine ☐ survey (grd/aerial/collars) ☐ collection of species ☐ research station	<i>Other:</i> ☐ commercial harvest ☐ recreational camp ☐ _____ ☐ _____

☐ other: _____

10. TYPE OF WATER USE

Check off the kind of project for which water will be used and the type of water use.

Undertaking

- ☐ Advanced Exploration
- ☒ Exploration Drilling
- ☐ Industrial
- ☐ Mine Development
- ☐ Power
- ☐ Remote/Tourism
- ☐ Other: _____

Water Use:

- ☒ To obtain water
- ☐ To modify the bed or bank of water course
- ☐ To Alter the flow of, or store water
- ☐ To cross the watercourse
- ☐ To Divert the watercourse
- ☐ Flood control
- ☐ Other: _____

11. QUANTITY OF WATER INVOLVED

Please include an estimate of the quantity of water to be used during the land use activity.

Quantity of water to be used (estimate): 300 m³/year

12. On a separate page, provide a NON-TECHNICAL project summary. This should include a non-technical description of the project proposal, no more than 300 words, in English and Inuktituk (Inuinaktun, in the West Kitikmeot). The project description should outline the project activities and their necessity, method of transportation, any structures that will be erected, expected duration of activity and alternatives considered. If the proposed activity fits into any long-term developments, please describe the projected outcome of the development for the area and its timeline.

13. Attach a detailed project description as outlined in APPENDIX A.

14. LAND USE APPLICATION FEES:

- ☐ Land use license I -
Inuit - \$ 0
Non-Inuit - \$100 per
1:250,000 NTS Map Sheet

- ☐ Commercial Lease I - \$ 500
- ☐ Commercial Lease II - \$1000
- ☐ Commercial Lease III - \$5000

- ☐ Land use license II - \$250
- ☒ Land use license III- \$500

- ☐ Residential/Recreational Lease Inuit - \$ 0
Non-Inuit - \$250

- ☐ Exemption Certificate

Land use fees: # of hectares used (18 including ice-airstrip, camp area, and borehole locations)

@ \$50.00/hectare = \$900

Note: The land use fee is for the amount of land used on an annual basis.

15. WATER USE APPLICATION FEES:

- | | |
|---|---|
| ☐ Land use license I
Application fee - \$50/year
Water use fee - \$1/1000m ³ | ☐ Commercial Lease I
Application fee - \$50/year
Water use fee - \$26.35/1000m ³ |
| ☐ Land use license II
Application fee - \$250/2 years
Water use fee - \$1/1000m ³ | ☐ Commercial Lease II
Application fee - \$500/year
Water use fee - \$26.35/1000m ³ |
| X Land use license III
Application fee - \$500/2 years
Water use fee - \$26.35/1000m ³ | ☐ Commercial Lease III
Application fee - \$5000/year + Legal Fees
Water use fee - \$26.35/1000m ³ |

Water use fees: volume of water used (m³) * Water use fee = \$ 26.35

Total Fees included with application \$1926.35

Note: The water application type is related to the land use application type.

16. a) The Applicant requests a Certificate of Exemption ☐

OR

b) The Applicant agrees to be bound by terms and conditions to be attached to the Inuit Land Use License or Lease. ☒

Sign name in full:

Signature

Date

APPENDIX A

All applicants must provide a detailed project description that includes ALL of the following:

1. Outline project activities, their necessity, their expected duration and alternatives considered. If the proposed activity fits into any long-term developments, describe the projected outcome of the development for the area and its timeline.
2. Schedule of activities including both operations and shutdowns
3. Provide a preliminary plan showing the location of the lands proposed to be used and an estimate of their area in hectares. The preliminary plan should show the approximate location of all:
 - i) existing or new lines, trails, rights-of-way and cleared areas proposed to be used in the exercise of the Right;
 - ii) buildings, campsites, air landing strips, air navigation aids, fuel and supply storage sites, waste disposal sites, excavations, ponds, reservoirs and other works and places proposed to be constructed or used during the exercise of the Right;
 - iii) manmade structures and works, including bridges, dams, ditches, highways, roads, transmission lines, pipelines, survey lines and monuments, air landing strips; all topographical and natural features, including eskers, rivers, streams, lakes, inland seas and ponds; and all areas of biological interest, including wildlife and fish habitat, specifically, calving, denning, spawning or nesting areas, identified in consultation with the NWMB, RWO, or HTO, as appropriate, that may be affected by the exercise of the Right; and
 - iv) the accurate location of all carving stone, archaeological sites, and archaeological specimens
4. Provide a list of structures that will be erected.
5. Equipment to be used, indicating type and number, size and ground pressure and proposed use. Include all drills, pumps, vehicles etc.
6. Fuels to be used, capacity of containers and number of litres. Include diesel, gasoline, aviation fuel, propane and other fuel types. Describe method of fuel transfer.
7. Provide a copy of fuel spill contingency plan
8. Proposed disposal methods for garbage, sewage, grey water, overburden (organic soil, waste material, tailings etc.), hazardous waste and other waste products. Describe the acid rock drainage potential of waste rock material and testing methods, if applicable. List the type, estimated quantities and storage methods of any hazardous materials that are going to be stored on the property.
9. Describe the methods of transportation.

10. Indicate the components of the environment that are near the project area, as applicable. Include the type of species, the important habitat area (calving, staging, denning, migratory pathways, spawning, nesting etc.) and the critical time periods (calving, post-calving, spawning, nesting, breeding etc.). Also include information on eskers, communities and historical/archaeological sites.
11. Summary of potential environmental, wildlife and resource impacts and mitigation measures to be used. Describe the effects of the proposed program on lands, water, flora and fauna.
12. Reclamation cost analysis for advanced exploration activities.
13. Proposed reclamation plan, that includes, but is not limited to the proposed methods and procedures for the progressive:
 - i) removal of all structures, equipment, and other manmade debris;
 - ii) rehabilitation of the area to its previous standard of human utilization and natural productivity;
 - iii) replacement of overburden and soil;
 - iv) grading of the area back to its natural contours; and
 - v) re-establishment, to the extent possible, of flora.

Include information about on going site remediation throughout the duration of the project.

14. Provide information on the socio-economic aspects of these activities. In particular, please provide details on:
 - i) How much money will be spent on this work?
 - ii) What percentage will go to Inuit firms or employees?
 - iii) How many jobs are available through this activity?
 - iv) How many Inuit employees will be hired?
 - v) What type of training opportunities for Inuit will be offered?

In addition to the above requirements, COMMERCIAL LEASE APPLICANTS must provide the following information:

- If the land is surveyed, state the lot and block number. If unsurveyed, state the size of the parcel and general area. Provide a detailed description and detailed sketch of the area applied for.
- Describe the type of commercial use.

In addition to the above requirements, RESIDENTIAL/RECREATIONAL LEASE APPLICANTS must provide the following information:

- If the land is surveyed, state the lot and block number. If unsurveyed, state the size of the parcel and general area. Provide a detailed description and detailed sketch of the area applied for.
- For what purposes will the land be used? Describe any buildings or improvements on this land. What is the value of the improvements on the land and who is the owner of the improvements.
- Provide a list of improvements planned for construction, the value of these improvements and within how many months of the effective date of the lease these improvements be finished.

In addition to the above requirements, QUARRY LICENSE or QUARRY CONCESSION AGREEMENT applicants must provide the following information:

- A description by meters and bounds of the land applied for;
- The name of the specified substances that the applicant desires to remove from the area; and
- A sketch showing clearly the position of the parcel in relation to a survey monument, prominent topographical feature or other known point and shown in its margin, copies of the markings on the posts or cairns.
- If for commercial use, the description shall contain an affidavit sworn by the applicant setting forth:
 - i) that the land contains material of the kind applied for in merchantable quantities;
 - ii) that the volume of specified substances are required for a project that has been approved by the appropriate level of government; and
 - iii) that the applicant has obtained a contract for the delivery of those Specified Substances.

Please prepare this project description on a separate sheet of paper and attach it to your application form marked as APPENDIX A. Return the original, signed and dated application form, with attached APPENDICES A and B and all ORIGINAL maps of the area to the KIA Lands Office at Box 360, Kugluktuk, NU, X0B 0E0.



APPLICATION FOR LAND USE PERMIT
DEMANDE DE PERMIS D=UTILISATION DES TERRES
Office use only - Réserve pour usage interne seulement

Application fee - Droits de demande de permis Land use fee - Droits de utilisation des terres General receipt no. - N° de reçu Date Class - Catégorie Permit no. - N° de permis

To be completed by all applicants - A remplir par tous les requérants <

New application Amendement

1. Applicant=s name and mailing address (Full name, no initials) - Nom et adresse du ou des requérant (s) Nom au complet, pas d=initiales)

5050 Nunavut Limited (a subsidiary of Adriana Resources Inc.)
Gordon Addie, President
Suite 1818 - 701 West Georgia Street
Vancouver, BC V7Y 1C6
Fax no. - NE de téléopieur 604-629-0923
Telephone no. - NE de téléphone 604-629-0250

2. address - Adresse du siège social Head office
télépieur Fax no. - NE de

Same as above

Field supervisor - Chef de chantier Radio telephone - Téléphone-radio Telephone no. - NE de téléphone
Anthony Kovacs To be provided once the 604-629-0250
Exploration Manager phone system is set up

3. Other personnel (Subcontractor, contractors, company staff, etc.) - Autre personnel (sous-Traitants, entrepreneurs, personnel desociété, etc.)

Contractors that may be hired once permits are in place:

Diamond Drilling: Major Drilling – Winnipeg, MB

– Tel 204-885-7532 – winnepeg@majordrilling.com

Environnemental Consultant :
Franz Environmental Inc., 308-1080 Mainland Street, Vancouver, B.C. V6B 2T4, Tel: 604-632-9941, Fax: 604-632-9942 Attn: Carlos da Ponte

Inuit helpers and expediting
Kikiak Construction - Kugluktuk, Nunavut - Tel: 867-982-713,
BBE Logistics#18 Yellowknife Airport Yellowknife NT, X1A3T2, Ph: 867-766-8655, Fax: 867-766-8651,

Helicopter support
Remote Helicopters, Box 1340 Slave Lake, AB, T0G 2A0 Ph: 780-849-2222, Fax: 780-849-2288
remote@telusplanet.net,



Fixed wing aircraft will be contracted from any of the following:

Air Tindi – Yellowknife NT, (888) 545-6794
Adlair Aviation – Yellowknife NT, (867) 873-5161
Air Thelon – Yellowknife NT, (867) 920-7110
Arctic Air – Yellowknife NT, (867) 873-1210
Arctic Sunwest Charters – Yellowknife NT, (867) 873-4464
Buffalo Airways - Yellowknife NT, (867) 873-6112

First Aid and Cook

1984 Enterprises Inc, Vancouver, BC, Ph: 604-736-8142

TOTAL: ~ 30 people

No. of Person days ~ 7200

- | | | |
|----|---|--|
| 4. | Qualifications – Titres
refer to Section 21 - Territorial Land Use Regulations
consultez l'article 21 - du Règlement sur l'utilisation des terres territoriales | No(s) exploration permit mineral claims - if applicable
NE(s) des permis d'exploration minière, s'il y a lieu |
| | a(i)X a(ii) a(iii) b c | |
-
5. a) Summary of operation (Describe purpose, nature and locations of all activities - refer to Section 22 (2) (b) - Territorial Land Use Regulations). (Use last page of form if additional room is required).
Résumé des opérations (exposez le but, la nature ainsi que l'emplacement de toutes les activités - consultez l'article 22 (2)(b) - du Règlement sur l'utilisation des terres territoriales). Utilisez la dernière page du formulaire si vous avez besoin d'espace supplémentaire).

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 and bulk fuel storage at McGregor Lake. The purpose of the camp is to support exploration activities associated with their Mackenzie Igneous Event (MIE) and Bear Valley Uranium exploration projects in the area. The KIA Land Use License is valid until July 15, 2008.

This license was originally proposed to establish a new camp at Iceberg Creek along the southwest shore of McGregor Lake, however, as an alternative to setting up a new camp, the KIA required 5050 Nunavut use an abandoned exploration camp (now known as the McGregor Lake Campsite) along the north shore of McGregor Lake. This alternative location was used historically by other mining companies (Figure 1-1).

5050 Nunavut is requesting an amendment and renewal of KTL306C016 to conduct a 10,000m drilling program on their MIE and Bear Valley property and intends to use the McGregor Lake Campsite to support these activities. To facilitate this drilling program, the camp will be expanded to accommodate 25 – 30 personnel.

b) Please indicate if a camp is to be set up (Use last page to provide details).

Indiquez si un camp doit être aménagé (Utilisez la dernière page pour donner des détails).

This project will make use of the existing McGregor Lake Camp site. See project description for full details.



-
6. Summary of potential environmental and resource impacts (Describe the effects of the proposed program on land, water, flora & fauna and related socio-economic areas (Use separate pages if necessary))

Résumé des conséquences possibles sur l'environnement et les ressources (décrire les effets du programme proposé sur les terres, l'eau, la flore et la faune et les domaines socio-économiques connexes (Utilisez des pages supplémentaires au besoin))

The environmental impact is expected to be minimal. The camp layout and use of existing structures will minimize surface disturbance. Food will be stored inside closed buildings and garbage will be incinerated daily to avoid attracting animals. Campsite activities, including fuel storage and refuelling, will be conducted a minimum distance of 30m from any water body.

The drill rigs will be flown to the drill locations to limit ground disturbance. Based on the type of mineral being explored, the drill activities will be conducted a minimum distance of 30 to 100m from any water body.

5050 Nunavut will inform the helicopter pilots of the general locations of the muskox herds and will either bypass them or increase altitude to minimize the noise level on the ground. If bears are nearby, work will be aborted. Falcon nests will also be avoided.

All fuel on the camp site will be stored in 170L structurally sound steel drums with secondary containment in accordance with Section 3.9 of the CCME Environmental Code of Practice for Aboveground and Underground storage Tank Systems Containing Petroleum and Allied Products (2003), and located 100m from the high water mark of McGregor Lake. The Spill Contingency Plan discusses the preventative measures 5050 Nunavut will abide by to avoid spills, as well as spill cleanup strategies.

The water intake will be located in McGregor Lake using a 'hose & float' systems. The intake end of the pipe will be equipped with a screen to avoid fish entrapment. The screen size will be determined following the calculations outlined in DFO's Freshwater Intake End-of-Pipe Fish Screen Guidelines.

The socio-economic impact is expected to be positive. 5050 Nunavut will hire up to 9 local workers as camp field staff through Kikiak Construction in Kugluktuk. Further positions will be offered for cooking and cleaning staff.

-
7. Proposed restoration plans (please use last page if required) - Plans proposés de remise en état des terres (au besoin, utilisez la dernière page).

Refer to the McGregor Lake Campsite Abandonment and Restoration Plan (2008)

-
8. Other rights, licenses or permits related to this permit application (mineral claims, timer permits, water licences, etc.)
Autres droits, autorisations ou permis associés à cette demande de permis (claims miniers, permis de coupe, permis d'exploitation hydraulique, etc.)

KIA Land Use License: KTL104C033 (amended July 15th 2006 as KTL306C016)

KIA Land Use License: KTL306C016 (will expire July 15th, 2008)

Nunavut Water Board Water License 2BE-MCG0608

Mineral Claims: GA1- 30 & GA39-45, M1 – M11

IOL parcel numbers: C052, C053, C060, C061, C062

A permit for a one-way, single-use winter trail to transport equipment to the campsite from Kugluktuk is currently under review by INAC, KIA, and the NIRB.



Is this to be a pioneered road?

Roads ☐ Please provide details on back page ☐ Has the route been laid out of ground truthed?

Not applicable – no road will be constructed.

9. Proposed disposal methods - Méthodes d'élimination proposées

- a) Garbage: c) Brush & trees:
- b) Sewage (Sanitary & Grey Water): d) Overburden (Organic soils, waste material, etc.):
- a) Garbage – Volumes of solid waste will vary with the daily population of the camp and project activities. Solid wastes from the camp will be burned in a garbage incinerator. The non-combustible solid waste will be packaged up and flown out to Yellowknife on the return flight that brought in supplies.
- b) Grey water – all camp discharge water; estimated for 30 people at 3.0 m³/day of wash water, shower water and kitchen water, will be biologically treated in a sump. The Sump will be located 100m from the high water mark.
- c) Sewage – All sewage will be collected with the waterless Pacto toilet system. The resultant encapsulated waste will be burned in the incinerator.
- d) Brush and trees - Brush and trees are very scarce in the project area. The proposed camp area will be located in an area of very little to no vegetation, and the camp layout will minimize the area of surface disturbance.
- e) Overburden - Very little overburden is present in the area. As stated above, the camp layout will minimize surface disturbance.

10. Equipment (includes drills, pumps, etc.) (Please use last page if required)
Matériel (comprend foreuses, pompes, etc.) (Utilisez la dernière page au besoin)

Type & Number - Type et nombre

Size - Dimension

Proposed use - Utilisation propose

Equipment Type	Number	Size/Ground Pressure	Use
Caterpillar D6M with Low-ground pressure tracks (LGP)	1	15,000kg /4.71 psi	Site maintenance & ice airstrip construction
Sled	1	2,300kg/ 5cm ground indent	Site maintenance & ice airstrip construction
Bobcat	1	minimal	Site maintenance & ice airstrip construction
Snowmobiles	15	Various/minimal	Transportation
Boyles 37 diamond drill	2	Maximum depth of 800m with BTW	Drilling
Helicopter (AStar B2)	1	minimal	Pick up and drop of crew and equipment (support)

Once all permits are in place for the drilling program, 5050 Nunavut will most likely contract Major Drilling Winnipeg, Manitoba for their drilling needs. The drill used will be a Hydracore 2000 diamond drill or a similar model.



11. Fuels - Combustibles (T) Number of containers - Nombre de réservoirs Capacity of containers - Capacité des réservoirs

Fuel Type	Container Type	Number of Containers	Container Capacity (litre)	Total Volume to be Stored On-Site
Diesel (P-50)	Barrels	100	170L	17,000L
Gasoline	Barrels	10	170L	1,700L
Jet B	Barrels	300	170L	51,000L
Propane	Barrels	10	100 lb tank	1000 lbs
Lubricants & Oils	Plastic Jugs	25	20L	500L

*In the chance of encountering Uranium in the drill cores, 5050 Nunavut has a Waste Generator Number NUG 100022 which will be used to document hazardous waste that may occasionally be transported from the Project area for proper disposal. The same individual in charge of documenting the hazardous wastes will have completed a course in the Transportation of Dangerous Goods specifically designed to train geologists in the safe transport of nuclear substances.

For the long term storage of drill cores, radiation levels will be reduced to less than 1.0 μ Sv measured at 1.0 meter from the surface and in no instance will the level be allowed to exceed 2.5 μ Sv. In practice, it is anticipated that major uranium intersections will be transported to the Saskatchewan Research Council for testing and storage at their nuclear materials storage facility.

12. Containment fuel spill contingency plans (Please attach separate contingency plan if necessary)
Plans d'urgence d'isolement de carburant en cas de déversement (veuillez joindre un plan d'urgence distinct au besoin)

See the attached McGregor Lake Campsite Spill and Contingency Plan, 2008

13. Methods of fuel transfer (To other tanks, vehicles, etc.) - Méthodes de transfert des combustibles (vers d'autres réservoirs, véhicules, ect.)

See the attached McGregor Lake Campsite Spill and Contingency Plan, 2008

14. Period of operation (includes time to cover all phases of project work applied for, including restoration) Période d'opération (comprend toute période du début à la fin des projets, y compris la remise en état)

The camp will be operational from February to October, and will be shutdown from November to February.

15. Period of permit (up to two years, with maximum of one year extension)
Période du permis (valable pour une durée de deux ans et prolongation maximale d'un an)

Start date - Date du début du projet: July 15th, 2008

Completion date - Date d'achèvement: July 15th 2010

16. Location of activities by map co-ordinates (attached maps and sketches)
Emplacement de activités selon les coordonnées géographiques (cartes et esquisses ci-jointes)

Min Lat Deg 115	Min 44	Sec 00	Min Long Deg 66	Min 48	Sec 00
Max Lat Deg 115	Min 45	Sec 00	Max Long Deg 67	Min 17	Sec 00



17. Applicant - Requéant
Print name in full - Ecrivez votre nom au complet en lettre moulée

Signature

Date

18. Fees – Droits ☒ Class A \$150.00 Class B \$150.00

Land use fees: 02 67 (13 drill holes on 5050 Nunavut mineral claim areas within Crown Land)
@ Hectare @ \$50.00 =

Droits d'utilisation des terres (Less than or equal to 2 ha.) \$ 50.00

Hectare @ \$50.00 = \$

(Each additional ha. Or portion of a ha. In excess of 2 ha.)

Total application and land use fees

Total des droits de demande de permis et d'utilisation des terres \$ 200.00

Office use only - Réservé pour usage interne seulement

19. Calculation of area involved (including access, staging areas, airstrips, campsites, etc.)
Calcul des aires en cause (comprend l'accès, les aires de transit, les pistes d'atterrissage, les camps, etc.)

Total area (Ha.)	Less 2 hectares	TOTAL (For fee calculation)
Superficie totale	Moins 2 hectares (-2)	(Aux fins du calcul des droits)

20. Application checklist - Vérification de la demande

☐	a. Application signed and dated	☐	e. Screening Report
☐	b. Fees Attached	☐	f. Timber permit applied for - Yukon
☐	c. Map Included	☐	g. Fees Attached
☐	d. Address and telephone number	☐	h. Lease Applied for

Accepted by - Acceptée par

Date

Remarks - Remarques

21. Additional information (attach additional pages if necessary) - Renseignements additionnels (joindre des pages supplémentaires au besoin)



Indian and Northern
Affairs Canada

Affaires indiennes
et du Nord Canada



P.O. Box 119
GJOA HAVEN, NU X0B 1J0
TEL: (867) 360-6338
FAX: (867) 360-6369

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NUNAVUT IMALIRIYIN KATIMAYINGI
NUNAVUT WATER BOARD
OFFICE DES EAUX DU NUNAVUT

WATER LICENCE APPLICATION FORM

Application for: (check one)

☐ New
 ☒ Renewal
 ☒ Amendment
 ☐ Assignment
 ☐ Cancellation

LICENCE NO:

(for NWB use only)

1. NAME AND MAILING ADDRESS OF APPLICANT/LICENSEE 5050 Nunavut Ltd. (a subsidiary of Adriana Resources Inc.) <u>Gordon Addie, President</u> <u>Suite 1818</u> <u>701 West Georgia Street</u> <u>Vancouver, BC V7Y 1C6</u> Phone: <u>604-629-0250</u> Fax: <u>604-629-0923</u> e-mail: <u>gaddie@adrianaresources.co</u>	2. ADDRESS OF CORPORATE OFFICE IN CANADA (if applicable) <u>Adriana Resources Inc.</u> <u>Suite 1818</u> <u>701 West Georgia Street</u> <u>Vancouver, BC, V7Y 1C6</u> Phone: <u>604-629-0250</u> Fax: <u>604-629-0923</u> e-mail: <u>infor@adrianaresources.com</u>
3. LOCATION OF UNDERTAKING (describe and attach a topographical map, indicating the main components of the Undertaking) Latitude: (115°14'27" N) Longitude: (66°54'45" W) NTS Map Sheet No. <u>86J/11, 86O/3, 4, 6</u> Scale: <u>Attached figure 1-2 is 1:50,000</u>	
4. DESCRIPTION OF UNDERTAKING (attach plans and drawings) 55050 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 and bulk fuel storage at McGregor Lake. The purpose of the camp is to support exploration activities associated with their Mackenzie Igneous Event (MIE) and Bear Valley Uranium exploration projects in the area. 5050 Nunavut also holds a Nunavut Water Board License (2BE-MCG0608) which was amended in May 2007 to include their uranium exploration work. The KIA Land Use License and the NWB License are valid until July 15, 2008. These licenses were originally proposed to establish a new camp at Iceberg Creek along the southwest shore of McGregor Lake, however, as an alternative to setting up a new camp, the KIA required 5050 Nunavut use an abandoned exploration camp (now known as the McGregor Lake Campsite) along the north shore of McGregor Lake. This alternative location was used historically by other mining companies (Figure 1-1). 5050 Nunavut is requesting an amendment and renewal of KTL306C016 and 2BE-MCG0608 to	

conduct a 10,000m drilling program on their MIE and Bear Valley property and intends to use the McGregor Lake Campsite to support these activities. To facilitate this drilling program, the camp will be expanded to accommodate 25 – 30 personnel.

Water for the camp will be pumped from McGregor Lake using a hose&float system. The intake end of the pipe will be equipped with a screen to avoid fish entrapment. The screen size will be determined following the calculations outlined in DFO's Freshwaer Intake End-of-Pipe Fish Screen Guidelines.

Access to the camp will be by flaot plane in the summer and ski plane in the winter.

5. **TYPE OF PRIMARY UNDERTAKING** (A supplementary questionnaire must be submitted with the application for undertakings listed in "**bold**")

- | | |
|--|---|
| ☐ Industrial | ☐ Agricultural |
| ☐ Mining and Milling (includes exploration/drilling) | ☐ Conservation |
| ☒ Municipal (includes camps/lodges) | ☐ Recreational |
| ☐ Power | ☒ Miscellaneous (describe below):
exploration camp and drilling |

See Schedule II of *Northwest Territories Waters Regulations* for Description of Undertakings

6. WATER USE

- | | |
|---|---|
| ☒ To obtain water | ☐ Flood control |
| ☐ To cross a watercourse | ☐ To divert a watercourse |
| ☐ To modify the bed or bank of a watercourse | ☐ To alter the flow of , or store, water |
| ☐ Other (describe): | |

7. QUANTITY OF WATER INVOLVED (cubic metres per day including both quantity to be used and quality to be returned to source)

- Water use** ☒ 100m³/day or less
☐ Greater than 100m³/day; if greater, indicate quantities to be used for each purpose (camp, drilling, etc.)

For camp use, it is estimated that 3.0 cubic meters of water will be used per day for a camp population of 30 people. The grey water will be returned to a sump to be biologically treated. Pacto toilet systems will be used; these systems require no water for their operation.

For drill use it is estimated that 260 cubic meters of water will be used for the whole drill program. Drill water will be re-circulated; therefore actual amount will depend on the friability of the rock.

Water returned to source

3.0 m³/day

8. WASTE (for each type of waste describe: composition, quantity (cubic metres per day), methods of treatment and disposal, etc.)

- | | |
|---|--|
| ☒ Sewage | ☒ Waste oil |
| ☒ Solid Waste | ☒ Greywater |
| ☒ Hazardous | ☐ Sludges |
| ☒ Bulky Items/Scrap Metal | ☐ Other (describe): Uranium |

Grey water – all camp discharge water; estimated for 30 people at 3.0 cubic metres per day of wash water, shower water and kitchen water, will be biologically treated in a sump. The sump will be located 100m from the high water mark.

Sewage – All sewage will be collected with the Pacto toilet system. The resultant encapsulated waste will be burned in the incinerator.

Waste oil – Waste oil volumes from the camp and related activities will be less than 0.04 cubic metres per week. Waste oil will be incinerated or used for heating purposes.

Bulky Items/Scrap Metal - Bulky items and scrap metal will be back hauled from the site for recycling or disposal in the Yellowknife landfill

Solid wastes – Volumes of solid waste will vary with the daily population of the camp and project activities. All combustible solid waste will be burned daily in an incinerator. The non-combustible solid waste will be packaged up and flown out to Yellowknife or Kugluktuk on the return flight that brought in supplies.

Hazardous Waste - Waste oil volumes from the camp and related activities will be less than 0.04 cubic metres per week. Waste oil will be incinerated or used for heating purposes. Uranium may also be encountered in the drill cores.

5050 Nunavut currently holds Nunavut Waste Generator # NUG 100022 (attached in the appendices). All such waste will be documented and transported from the Project area for proper disposal. The same individual in charge of documenting the hazardous wastes will have completed a course in the Transportation of Dangerous Goods specifically designed to train geologists in the safe transport of nuclear substances.

For the long term storage of drill core, radiation levels will be reduced to less than 1.0 µSv measured at 1.0 meter from the surface and in no instance will the level be allowed to exceed 2.5 µSv. In practice, it is anticipated that major uranium intersections will be transported to the Saskatchewan Research Council for testing and storage at their nuclear materials storage facility

Please refer to the attached Uranium Exploration Plan.

9. OTHER PERSONS OR PROPERTIES AFFECTED BY THIS UNDERTAKING (give name, mailing address and location; attach if necessary)

The land affected by the undertaking is administered by the Kitikmeot Inuit Association. It lies within the Inuit land parcels: C053, C060, C061, C062. An amendment/renewal to 5050 Nunavut present Land Use License has been submitted to the Kitikmeot Inuit Association to make use of the existing McGregor Lake Campsite located along the north shore of the lake. 5050 Nunavut owns or has applied for all the mineral tenures underlying the sites.

Land Use Permit

DIAND ☐ Yes ☒ No If no, date expected Application being processed

Regional Inuit Association ☒ Yes ☐ No If no, date expected KTL306C016

Commissioner ☐ Yes ☐ No If no, date expected N/A

10. PREDICTED ENVIRONMENTAL IMPACTS OF UNDERTAKING AND PROPOSED MITIGATION MEASURES (direct, indirect, cumulative impacts, etc.)

NIRB Screening ☒ Yes ☐ No If no, date expected NIRB File # 06EN055 assessed the previous project proposal and decided to process it without a review.

11. INUIT WATER RIGHTS

Will the project or activity substantially affect the quality, quantity, or flow of water flowing through Inuit Owned Lands and the rights of Inuit under Article 20 of the Nunavut Land Claims Agreement?

No. The operation of the existing McGregor Lake camp will not affect the quality, quantity or flow of water flowing through Inuit Owned Land. Water from Muskox Intrusion area has been used for drilling and human consumption since the 1950s with no detectable adverse impacts.

If yes, has the applicant entered into an agreement with the Designated Inuit organization to pay compensation for any loss or damage that may be caused by the alteration. If no compensation agreement has been made, how will compensation be determined?

N/A

12. CONTRACTORS AND SUB-CONTRACTORS (name, address and functions)

Franz Environmental Inc., 308-1080 Mainland Street, Vancouver, B.C. V6B 2T4
Tel: 604-632-9941, Fax: 604-632-9942 Attn: Carlos da Ponte

Kikiak Construction - Kugluktuk, Nunavut - Tel: 867-982-713, Inuit helpers and expediting

BBE Logistics#18 Yellowknife Airport Yellowknife NT, X1A3T2, Ph: 867-766-8655, Fax: 867-766-8651, Expediting
 Diamond Drill: Major Drilling – Winnipeg, Manitoba – Tel (204) 885-7532 – winnipeg@majordrilling.com
 Remote Helicopters, Box 1340 Slave Lake, AB, T0G 2A0 Ph: 780-849-2222, Fax: 780-849-2288
 remote@telusplanet.net, Helicopter support
 Fixed wing aircraft will be contracted from any of the following (depending on which contractor is available):
 Air Tindi – Yellowknife NT, (888) 545-6794
 Adlair Aviation – Yellowknife NT, (867) 873-5161
 Air Thelon – Yellowknife NT, (867) 920-7110
 Arctic Air – Yellowknife NT, (867) 873-1210
 Arctic Sunwest Charters – Yellowknife NT, (867) 873-4464
 Buffalo Airways - Yellowknife NT, (867) 873-6112
 1984 Enterprises Inc, Vancouver, BC, Ph: 604-736-8142 (First aid and cook)

13. STUDIES UNDERTAKEN TO DATE (list and attach copies of studies, reports, research, etc.)

An inspector from NWB visited the McGregor camp on Aug 11, 2007, collected water samples, results not available. A Phase I/II Environmental Site Assessment was conducted in 2004 by Golder and Associates on behalf of INAC. This report provides an inventory of the historical activities conducted at the camp.

14. THE FOLLOWING DOCUMENTS MUST BE INCLUDED WITH THE APPLICATION FOR THE REGULATORY PROCESS TO BEGIN

Supplementary Questionnaire (where applicable: see section 5) ☒ Yes ☐ No If no, date expected _____

Inuktitut and/or Inuinnaqtun/English Summary of Project ☒ Yes ☐ No If no, date expected _____

Application fee of \$30.00 (Payee Receiver General for Canada) ☒ Yes ☐ No If no, date expected _____

Water Use fee of \$30.00 (unless otherwise indicated in Section 9 of the *NWT Waters Regulations*; Payee Receiver General for Canada)

☒ Yes ☐ No If no, date expected _____

15. PROPOSED TIME SCHEDULE (unless otherwise indicated, the NWB will consider the application for a five (5) year term)

☐ one year or less (or) ☒ Multi Year

Start Date: July 15, 2008 Completion Date: July 15, 2010

Name (Print)

Title (Print)

Signature

Date

For Nunavut Water Board office use only

APPLICATION FEE Amount: \$ _____ Pay ID No.: _____

WATER USE DEPOSIT Amount: \$ _____ Pay ID No.: _____

5050 Nunavut Limited
License No. KTL306C016,
McGregor Lake Campsite Renewal/Amendment, 2008
Non-Technical Project Description

1. Introduction

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 and bulk fuel storage at McGregor Lake. The purpose of the camp is to support exploration activities associated with their Mackenzie Igneous Event (MIE) and Bear Valley Uranium exploration projects in the area. The KIA Land Use License is valid until July 15, 2008.

This license was originally proposed to establish a new camp at Iceberg Creek along the southwest shore of McGregor Lake, however, as an alternative to setting up a new camp, the KIA suggested 5050 Nunavut use an abandoned exploration camp (now known as the McGregor Lake Campsite) along the north shore of McGregor Lake. This alternative location was used historically by other mining companies (Figure 1-1).

5050 Nunavut is requesting an amendment and renewal of KTL306C016 to conduct a 10,000 m drilling program on their MIE and Bear Valley property and intends to use the McGregor Lake Campsite to support these activities. To facilitate this drilling program, the camp will be expanded to accommodate 25 – 30 personnel.

2. Schedule

The camp will be operational from February to October, and will be shutdown from November to February.

3. Structures

To minimize construction, 5050 Nunavut will make use of several existing structures at the campsite, making additions only where necessary. Several sleepers will be added to the existing ones to accommodate the increase in camp size. An addition will also be made to the existing core shack to accommodate a Geologist's Office. The following provides a list of the structures planned for the camp.

Structure Type	New or Existing Structure	Approximate Dimensions	Number
Core Shack	New	20ft x 30ft	1
Geologist's Office w/ existing core shack	Existing	34ft x 20ft	1
Drill Foreman Office	Existing	14ft x 16ft	1
Kitchen	Existing	30ft x 16ft	1
First Aid	Existing	14ft x 16ft	1
Generator Room	Existing	10ft x 10ft	1
Dry	Existing	34ft x 20ft	1
Sleeper (insulated tent accommodation)	Existing	16ft x 20ft	6
	New	14ft x 16ft	5
Outhouse	Existing	9ft x 9ft	1
Pacto Toilets	New	9ft x 9ft	2

4. Equipment

The following is a list of the equipment that will be present and used at the McGregor Lake Campsite.

Equipment Type	Number	Size/Ground Pressure	Use
Caterpillar D6M with Low-ground pressure tracks (LGP)	1	15,000kg /4.71 psi	Site maintenance & ice airstrip construction
Sled	1	2,300kg/ 5cm ground indent	Site maintenance & ice airstrip construction
Bobcat	1		Site maintenance & ice airstrip construction
Snowmobiles	15	Various/minimal	Transportation
Hydracore 2000 diamond drill	2	Maximum depth of 800m with BTW	Drilling
Helicopter (AStar B2)	1	-	Pick and drop of crew and equipment (support)

5. Fuel Volumes and Spill & Contingency Plan

Please refer to the McGregor Lake Campsite Spill and Contingency Plan for fuel handling techniques and spill response. The table below outlines fuel types and volumes to be stored at the campsite.

Fuel Type	Container Type	Number of Containers	Container Capacity (litre)	Total Volume to be Stored On-Site
Diesel (P-50)	Barrels	100	170L	17,000L
Gasoline	Barrels	10	170L	1,700L
Jet B	Barrels	300	170L	51,000L
Propane	Barrels	10	100 lb tank	1000 lbs
Lubricants & Oils	Plastic Jugs	25	20L	500L

6. Waste Disposal

Sewage – Collected with a “Pacto toilet system” (which requires no water, electricity, or sewage system) and will be burned in the onsite incinerator.

Grey water – Biologically treated in a sump located 100m from the high water mark.

Combustible solid waste – Will be burned daily in the onsite incinerator

Non-combustible solid waste & bulky items – packaged up and flown to Yellowknife for landfill disposal.

Waste oil/hazardous waste – Fuels present on site will be incinerated or used for heating purposes. There will be no hazardous waste material on the project site.

Empty barrels/fuel drums - Sealed and flown to an approved disposal facility in Yellowknife or Kugluktuk.

7. Existing Environment

The project is in the exploration stage; therefore baseline studies have not yet been conducted. An inspector from INAC visited the camp on August 11, 2007, and collected water samples from different areas in the vicinity of the camp and drill sites. Please refer to the McGregor Lake Campsite Detailed Project Description for a literature review of local flora, fauna, and environmental conditions.

8. Environmental Impacts

The environmental impact is expected to be minimal. The camp layout and use of existing structures will minimize surface disturbance. Food will be stored inside closed buildings and garbage will be incinerated daily to avoid attracting animals. Campsite activities, including fuel storage and refuelling, will be conducted a minimum distance of 30m from any water body.

The drill rigs will be flown to the drill locations to limit ground disturbance. Based on the type of mineral being explored, the drill activities will be conducted a minimum distance of 30 to 100m from any water body. 5050 Nunavut will inform the helicopter pilots of the general locations of the muskox herds and will either bypass them or increase altitude to minimize the noise level on the ground. If bears are nearby, work will be aborted. Falcon nests will also be avoided.

9. Reclamation

Please refer to the McGregor Lake Campsite Abandonment and Restoration Plan.

10. Local Employment

5050 Nunavut will hire up to 9 local workers as camp field staff through Kikiak Construction in Kugluktuk. Further positions will be offered for cooking and cleaning staff.

[illegible]

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ጥቅም	ላምፕ ስልጣን	9ft x 9ft	1
ጥቅም	ጥቅም	9ft x 9ft	2

4. $\Lambda^{\text{c}}\text{dN}^{\text{c}}$

[illegible]

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ከሰነድ D6M ሰነድ/ሰነድ/ሰነድ (LGP)	1	15,000kg /4.71 psi	ሰነድ ከሰነድ/ሰነድ/ሰነድ ሰነድ ሰነድ ሰነድ/ሰነድ/ሰነድ
ክፍል	1	2,300kg/ 5cm ሰነድ ሰነድ/ሰነድ	ሰነድ ከሰነድ/ሰነድ/ሰነድ ሰነድ ሰነድ ሰነድ/ሰነድ/ሰነድ
ሰነድ/ሰነድ	1		ሰነድ ከሰነድ/ሰነድ/ሰነድ ሰነድ ሰነድ ሰነድ/ሰነድ/ሰነድ
ክፍል/ሰነድ	15	ሰነድ/ሰነድ/ሰነድ/ሰነድ/ሰነድ/ሰነድ	ሰነድ/ሰነድ/ሰነድ
ሰነድ/ሰነድ 2000 ሰነድ/ሰነድ ሰነድ	2	ሰነድ/ሰነድ 800-ሰነድ BTW-ሰነድ/ሰነድ	ሰነድ/ሰነድ
ከሰነድ (AStar B2)	1	-	ሰነድ/ሰነድ ሰነድ ሰነድ/ሰነድ ሰነድ ሰነድ ሰነድ ሰነድ/ሰነድ (ሰነድ/ሰነድ/ሰነድ)

5. **ပံ့ပိုးမှုပေးသော အဖွဲ့အစည်းများ၏ အကျိုးအမြတ်များကို အသုံးပြုရန်**

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ፍጡራዊ ፍጡራዊ (P-50)	ፍጡራዊ	100	170L	17,000L
ፍጡራዊ	ፍጡራዊ	10	170L	1,700L
ፍጡራዊ ፍጡራዊ	ፍጡራዊ	300	170L	51,000L
ፍጡራዊ ፍጡራዊ	ፍጡራዊ	10	100lb ፍጡራዊ	1000 lbs
ፍጡራዊ ፍጡራዊ	ፍጡራዊ	25	20L	500L

6. $\triangleleft^b C d^c \Delta \Gamma C^c$

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Δδδ'ε'ζ'η'θ'ι'κ'λ'μ'ν'ξ'ο'π'ρ'σ'τ'υ'φ'χ'ψ'ω' - >φ'χ'ψ'ω' φ'χ'ψ'ω'π'ρ'σ'τ'υ'φ'χ'ψ'ω' <
δ'ε'ζ'η'θ'ι'κ'λ'μ'ν'ξ'ο'π'ρ'σ'τ'υ'φ'χ'ψ'ω' <δ'ε'ζ'η'θ'ι'κ'λ'μ'ν'ξ'ο'π'ρ'σ'τ'υ'φ'χ'ψ'ω'.

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7. ᐱᐅᐅᐅᐅ ᐅᐅᐅᐅᐅᐅᐅ

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8. ᐃᑲᓂᐅᐸ ᐃᔭᕐᔭᐅᐳᐣᐰᐱᐢ

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9. $\wedge \nabla^b b^a \sigma^c \sigma^c{}_b$

[illegible]

10. $\mu_{\mathcal{C}^{\infty}} \Delta^{\mathfrak{g}} \mu_{\mathcal{C}^{\infty}} \Delta^{\mathfrak{g}}$

[illegible]

**5050 Nunavut-kut Timeoyok
Laesoeyum Napaa KTL306C016,
McGregor Lake-mi Iglukpakakvik Atuvaageagani, 2008-mi
Nalulanigitok Havaam Kanogitunikhaagun**

1. Hivunikhiyutin

5050 Nunavut-kun Timoeoyok (5050 Nunavut-kun), taya tigumeaktun Kitikmeoni Inoen Katimayin (KIA-kun) Nunanik Atugeagani Laeseoyumik KTL306C016-mi iglukpakakveoyagani (milvikaklonilo), napayunoanik naonaeyaelotik nunanik, nalvakheoklotiklo oyagakheokvikhanik, ikutaklotiklo agiyugaalokniklo okhokayoakakvikaklotik McGregor Lake-mi. Piyutaoyok iglukpakakvik ihoakutaoyagani nalvakheoktunin ukuniga Mackenzie Igneous Event-mik (MIE-mi) Bear Valley Unranium-milo nalvakheokvikmi nunami. KIA-kun Nunanik Atugeagani Laeseoyok atulaktok July 15-mun 2008-mi.

Una laeseoyok hivoagun pihimayok nutamik iglukpakakvikageagani Iceberg Creek-mi hivugaata oalikheani hinaata McGregor Lake-mi, kiheani, aheanik nutamik iglukpakakvikageagani, KIA-kun pikoeyun 5050 Nunavut-kun atukuvlogin kimaktaohimayok nalvakheoktin iglukpakakvigaloaganik (taya kaoyimayaoyok McGregor Lake-mi Iglukpakakvikmik) tunuhikheani hinanetumik McGregor Lake-mi. Una inigiyaolaktok iglukpakakveogaloak atoktaohimakman ahenin oyagakheoktinin taemani (Naonaepkun 1-1-mi).

5050 Nunavut-kun tukhiktokmata nutaguktikniganik atuvageaganilo KTL304C016-guyok 10-taosan metamik ikutakvikageagani MIE-giyamikni Bear Valley-milo nunagiyamikni atugumakmatalo McGregor Lake-mi Iglukpakakveoyumik ukoa havaagiyaotilogin. Ihoageagani igulalikata, iglukpakakvik agikligeakneaktaan inukalaaligeagani 25-nin 30-mun havaktunik.

2. Atulikvikhagun

Iglukpakakvik inukalikneaktok havaliklotiklo February-min October-mun, umiklonilo November-min February-mun.

3. Iglukpaen

Hanavalagitagani, 5050 Nunavut-kut atokneaktun malguknik napagekchimayuknik iglukpakakvikmi, nigutoktigigeaklotik piyageakaligaagamik talvatoak. Malguk hiniktakveoyukhak ilageakneakaen taya atoktamiknun inugeakhigeakan iglukakveoyok. Nigutoktigigeakneaktun taya iglukpanoamik inikageagani Nunaoyalikiyim titigakvikhaanik. Ukoa titikan naonaepkutaoyun napayukhanik iglukpakakvikmi.

Iglukpaom Kanogituniga	Nutak Inigekhimayoklunen	Kanok Agiyuniganik	Kaveonigin
Atokloaktok Iglukpanoak	Nutak	20ft x 30ft	Ataohik
Oyagaktaanik Naonaeyaeyim Titigakgikhaa ilagilogo taya atoktum iglukpanoam		34ft x 20ft	Ataohik
Ikutaktin Ataneata Titigakvikhaa	Inigekhimayok	14ft x 16ft	Ataohik
Igavik nigiviklo	Inigekhimayok	30ft x 16ft	Ataohik
Aneaktunik Monakhivik	Inigekhimayok	14ft x 16ft	Ataohik
Alguyaktutinun Pikutikakvik	Inigekhimayok	10ft x 10ft	Ataohik

Paneomayukakvik	Inigekhimayok	34ft x 20ft	Ataohik
Hiniktakvik (iluvgoalgin tupen hiniktakveoyun)	Inigekhimayok Nutak	16ft x 20ft 14ft x 16ft	Siksin Taliman
Anageaktokvik	Inigekhimayok	9ft x 9ft	Ataohik
Nutaan Anageaktokven	Nutak	9ft x 9ft	Malguk

4. Pikutin

Ukoa titigakhimayun piktutin talvaneneaktun atoktaolotiklo MacGregor Lake-mi Iglukpakakvikmi.

Hunaoniga Pikutim	Kaveonigin	Agitilaagin Nunamilo Atikhinigagun	Atoknigagun
Poalgiyaon D6M-guyok atikhiyutivalalimagitok nunamik aolavikmini	Ataohik	15,000kg /4.71 psi-mik	Iglukpakakvikmi ihoakhaeyutikhak hikumilo milvikhamik hanakiyutikhak
Aaleak	Ataohik	2,300kg/ 5cm-mik nunami atikhinigagun	Iglukpakakvikmi ihoakhaeyutikhak hikumilo milvikhamik hanakiyutikhak
Poalgitilinoak Akhalun	Ataohik		Iglukpakakvikmi ihoakhaeyutikhak hikumilo milvikhamik hanakiyutikhak
Siketun	15-guyun	Aalatken mikineaktun	Aolagutikhan
Hitiyumik kigutikaktok ikutakyoak nunamik	Malguk	Atiknikhak 8-hanata metamik BTW-mun	Ikutaotikhak
Hanikaptak(AStar B2-guyok)	Ataohik	-	Akyaktokhak havaktunik pikutiniklo (ikayoktoelonilo)

5. Okhuvaloen Kuveyukaknikalo Upalugaegekhimayukhan

Takuyavan McGregor Lake-mi Iglukpakakvikmi Kuveyukaknikan Kiklimaktigiyutikhan okhokyoalikineaknikata kuveyukaknikalo. Naonaepkutin havuma ataanetun okhuvaloen kitukmagaa agitilaagilo tutkumayaoyun iglukpakakvikmi.

Okhokyoam Kanogituniga	Okhokakveoyun	Kaveonigin Okhokakveoyun	Okhokyoan Pugin (litre-mik)	Ataotimun Tutkumayaoyukhan Iglukpakakvikmi
Okhokyoak(P-50-guyok)	Katakoyen	100	170 Letamik	17,000 Letamik
Kasilen	Katakoyen	10	170 Letamik	1,700 Letamik
Hanikaptaom Okhokhaen Jet B-guyok	Katakoyen	300	170 Letamik	51,000 Letamik
Puplaen	Katakoyen	10	100 paon puun	1-taosan paon
Okhoktigutikhan Okhuvaloelo	Palastikni Puuni	25	20 Letamik	500 Letamik

6. Ikaguvaloen Igitaovaktun

Annakun – Katitaoneaktun atoklogo “Pacto-guyok anakvik” (imaktugeakagitok, alguyaktugitoklunen, anagukvikageakagitoklunen) ikulatiyaoneaktok iglukpakakvikmi ikulatiyunmi.

Hilaepakun – Hilaenakmin halumaktiktaoneakok imagikhitevikmi 1-hanat metamik hinaanin imaokakniganin.

Ikulalaktun Ikaguvaloen – Ikulatiyaovakneakun uplutoagaagan iglukpakakvikmi ikulatiyunmi.

Ikulalimagitun ikagun agataelo ikagun – puktoktaolotik tikmeakun akyaktaoneakun Yalunaemun haoyaoyukhan ikagukveanun.

Ikagun okhuvaloen aneagutaolaktulo ikagun – Okhuvaloen iglukpakakvikmi ikulatiyaoneakun atoklogilunen ignikvikmi unakutikhanun. Pikalimagitok aneagutaolaktunik ikagunik iglukpakakvikmi.

Imakagitun katakyoen okhokyoanulo puun – Kuvilaeyaklogin tikmeakun akyaktaolotik ikagukvikmun Yalunaemi Kugluktumilunen.

7. Taya Avataoyok

Havaak nalvakheokveoyok; talvuna hivoagun naonaeyaehimaginmata huli. Ihivgeokhiyi INAC-kunin polakhimayok iglukpakakvikmik August 11-mi 2007-mi, naonaeyaehimayok imavaloknik humilikaa iglukpakakvikmin ikutakvikhanilo. Takuyavan McGregor Lake-mi Iglukpakakveom Kanogitunikhagun titigakhimayun ihivgeogeagani naoteavaloen talvani, avataoyuvlo kanogitunigagun.

8. Avataoyumik Aktoknigin

Avataoyumik aktokniga mikineaknahugiyaoyok. Iglukpakakvik tayalo napayun atoknigagun aktugutaovalalimagitok nunamik. Nikivaloen tutkumayaoneakun ukoakhimayuni iglukpakni ikaguvaloelo ikulatiyaoneakun uplutoagaagan hugaavaloen talvugaogitaagani. Iglukpakakvikmi hulilugagutin, okhokyoakakvelo imikhivelo, havaagiyaoneakun igaheaktumi 30-metamik imavaloknin.

Ikutavaloen tikmeakun akyaktaovakneakun ikutakvikhaenun nuna atoktaovalagitaagani. Oyagaktaakhan nalvakheoktaoyun piyutigivlogin, ikutakpakneakun ugahiktigilotik 30-metamin 1-hanat metamun imavaloen ugahikniganin. 5050 Nunavut-kun okaotineakaen hanikaptanik tikmealikiyin humenmagaa umikmaen hanivaagun pivakneakun kulvahikhivaaliklotiklunen tikmiligaagamik nipaakpalagitaagani nunami. Akhaen kaninikata, havagoekpakneakun. Kilgavelo uvloen kaningaktaelineakaen.

9. Utiktitaoligeakan Nunan Iitkuhenun

Takuyavan McGregor Lake-mi Iglukpakakvikmi Kimaalikata Utiktitaagani Nunan Iitkuhenun Paknaeyoan.

10. Nunaliknin Havaktukhan

5050 Nunavut-kun havaktitineakun 9-nik nunaliknin havaktukhanik manikami ukunuuna Kikiak Hanayinin Kugluktumin. Havaktikhakheokneakulo kukeoyukhanik halumakhiyukhaniklo.

2008 McGregor Lake Campsite
Detailed Project Description

Prepared for:

5050 Nunavut Limited /
Adriana Resources Inc.
1818 – 701 West Georgia St.
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Prepared by:

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Appendix B – Material Safety Data Sheets (MSDS)

Appendix C – Spill Report Form

Appendix D – Uranium Exploration Plan

Appendix E – Nunavut Waste Generator Number

Appendix F – Daily Wildlife Log

Appendix G – Figures

1-1 Site Location Map

1- 2 Exploration Area

1- 3 Camp Layout

1.0 PROJECT DESCRIPTION

This section includes basic information about the location of the project, contact information, acts, regulations and guidelines that apply and the permits and licenses that are required for the proposed activities.

1.1 Name and Location of Proposed Project

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 and bulk fuel storage at McGregor Lake. The purpose of the camp is to support exploration activities associated with their Mackenzie Igneous Event (MIE) and Bear Valley Uranium exploration projects in the area. The KIA Land Use License is valid until July 15, 2008. This document is in support of the Amendment and Renewal of KTL306C016.

1.2 Contact Information for Proponent(s) and Other Project Contacts

5050 Nunavut Limited (subsidiary of Adriana Resources Inc.)
Gordon Addie, President (5050 Nunavut)
Suite 1818 – 701 West Georgia Street
Vancouver, BC
Canada V7Y 1C6
Phone: 604 629 0250 Fax: 604 629 0923

Franz Environmental Inc. (Environmental consultant)
308 – 1080 Mainland St.
Vancouver, B.C. Canada V6B 2T4
Attn: Carlos da Ponte
Phone: 604 632 9941 Fax: 604 632 9941

Diamond Drilling: Major Drilling – Winnipeg, MB – Tel 204-885-7532 –
winnepeg@majordrilling.com

Fixed wing aircraft will be contracted from any of the following (depending on which contractor is available):

Air Tindi – Yellowknife NT, (888) 545-6794 **Adlair**

Aviation – Yellowknife NT, (867) 873-5161 **Air**

Thelon – Yellowknife NT, (867) 920-7110 **Arctic**

Air – Yellowknife NT, (867) 873-1210

Arctic Sunwest Charters – Yellowknife NT, (867) 873-4464

Buffalo Airways – Yellowknife NT, (867) 873-6112

1.2.1 Acts, regulations and guidelines

The following list is a list of acts, regulations and guidelines (both federal and territorial) that apply to the activities at the McGregor Lake Campsite.

- Article 13 – Nunavut Land Claims Agreement
- NWB – Water Licensing in Nunavut – Interim Procedures and Information Guide for Applicants
- NWB – Interim Rules of Practice and Procedure for Public Hearings
- NWTWB – Guidelines for the Discharge of Treated Municipal Wastewater in the NWT
- NWTWB – Guidelines for Contingency Planning
- DFO – Freshwater Intake End of Pipe Fish Screen Guideline
- Fisheries Act – s.35
- RWED – Environment Protection- Spill Contingency Regulations
- Canadian Drinking Water Quality Guidelines
- Public Health Act Camp Sanitation Regulations
- Public Health Act Water Supply Regulations
- Territorial Land Use Act and Regulations

1.3 Permits and Licenses

The following list is a list of the permits and licenses that are required (and in place) for the McGregor Lake Campsite.

- KIA Land Use License: KTL104C033 (amended July 15th 2006 as KTL306C016)
- KIA Land Use License: KTL306C016 (will expire July 15th, 2008)
- Nunavut Water Board Water License 2BE-MCG0608
- Mineral Claims: GA1- GA45, M1 – M11
- IOL parcel numbers: C052, C053, C060, C061, C062

A permit application for a one-way, single use winter trail from Kugluktuk to the McGregor Lake Campsite has been submitted to INAC, KIA, and NIRB for approval.

2.0 GENERAL PROJECT INFORMATION

General project information includes information regarding the history of the site, figures for the project location and the camp infrastructure, the mineral resources under exploration, the purpose of the project, alternatives to the project and the type of exploration activity.

2.1 History of the Site

The Muskox Intrusion was first discovered in 1956 by INCO. They spent three years exploring and drilling for nickel-copper mineralization. Numerous companies examined the intrusion between 1969 to present, but no significant deposits were outlined. Studies undertaken on the area include:

- Geophysical and geochemical surveys and geological mapping of the Marginal Series near McGregor Lake;
- Property-wide geophysical including: VLF, magnetics, gravity, UTEM, and HLEM;
- Controlled Source Audiomagnetotelluric; and
- Numerous, highly anomalous grab samples were collected from the Pyrrhotite Lake.
- An inspector from NWB visited the McGregor Lake Campsite on Aug 11, 2007, collected water samples, results not available.
- A Phase I/II Environmental Site Assessment of the existing McGregor Lake Campsite was conducted in 2004 by Golder and Associates on behalf of INAC. This report provides an inventory of the historical activities conducted at the camp.

2.2 Project Location and Infrastructure Map

Please refer to Figure 1-1, 1-2, and 1-3 for an outline of the intended project area and camp layout.

2.3 Mineral Resource Under Exploration

The minerals under exploration include Copper, Nickel, Platinum, Palladium, and Uranium.

2.4 Project Need and Purpose

A campsite is required at McGregor Lake to support the staking, prospecting, and exploration work of KIA Land Use License KTL306C016, as well as the drilling program currently being applied for. 5050 Nunavut is requesting an amendment and renewal of KTL306C016 to conduct an expanded drilling program on their MIE and Bear Valley property and intends to use the existing McGregor Lake Campsite to support these activities.

5050 Nunavut considers the base of the Muskox Intrusion and adjoining basement and sedimentary rocks to represent a corridor of opportunity for accumulations of Uranium and sulphides containing Copper, Nickel, Platinum and Palladium. The MIE and BVU project has been designed to effectively explore the area for economically viable mineral deposits within the 5050 Nunavut mineral claims.

2.5 Alternatives to the Project and Alternatives to Project Components

KIA License KTL306C016 was originally proposed to establish a new camp at Iceberg Creek along the southwest shore of McGregor Lake, however, as an alternative to setting up a new camp, the KIA suggested 5050 Nunavut use an abandoned exploration camp (now known as the McGregor Lake Campsite) along the north shore of McGregor Lake. This alternative location was used historically by other mining companies (Figure 1-1 & 1-2).

2.6 *Type of Exploration Activity*

The exploration activity includes: airborne geophysics surveys, ground geophysical surveys, and prospecting covered under KIA Land Use License KTL104C033, as well as exploration drilling (10000m).

3.0 PROJECT ACTIVITIES

Project activities include the camp use and construction, a discussion of the campsite, the equipment at camp, staking and prospecting, drilling, transportation, water use on site, fuel transport and storage, geophysical work, transportation, the camp site, equipment, water, wastes, fuel and other products, chemicals and hazardous materials. Each of these topics is discussed below.

3.1 Camp Use and/or Construction

5050 Nunavut proposes to utilize the existing camp located on the north shore of McGregor Lake 100m from the high water mark. Figure 1-3 outlines the existing structures and those structures that will be added to expand the camp capacity. One existing building is located within the lake's high water mark. This building will not be used.

3.2 Camp Site

The following sections describe the campsite in further detail.

3.2.1 Type of Camp

It will be a seasonal camp consisting of tent and plywood structures. Procedures to be followed during temporary closure of the camp and final abandonment are described in the McGregor Lake Campsite Abandonment and Restoration Plan, 2008 (attached).

3.2.2 Camp Structures and Infrastructure

The following table summarizes the buildings that currently exist on site and the buildings 5050 Nunavut intends to place at the campsite (new). The camp will be heated with oil stoves.

Structure Type	New or Existing Structure	Approximate Dimensions	Number
Core Shack	New	20ft x 30ft	1
Geologist's Office w/ existing core shack	Existing	34ft x 20ft	1
Drill Foreman Office	Existing	14ft x 16ft	1
Kitchen	Existing	30ft x 16ft	1
First Aid	Existing	14ft x 16ft	1
Generator Room	Existing	10ft x 10ft	1
Dry	Existing	34ft x 20ft	1
Sleeper (insulated tent accommodation)	Existing New	16ft x 20ft 14ft x 16ft	6 5
Outhouse	Existing	9ft x 9ft	1
Pacto Toilets	New	9ft x 9ft	2

3.2.3 Maximum number of people on site

The maximum people on camp would be 30. The number of people staying at the camp will vary throughout the operating period from 1 – 30 people. The campsite and exploration activities will be shutdown from October to March. During the winter shut-down, the camp will either be winterized or, if warranted, one or two people will remain on site as caretakers and to watch the camp.

3.2.4 Camp power source

The power source would be from onsite diesel-powered generators.

3.3 Equipment

The following table is a summary of the equipment that will be on site.

Equipment Type	Number	Size/Ground Pressure	Use
Caterpillar D6M with Low-ground pressure tracks (LGP)	1	15,000kg /4.71 psi	Site maintenance & ice airstrip construction
Sled	1	2,300kg/ 5cm ground indent	Site maintenance & ice airstrip construction
Bobcat	1	Negligible	Site maintenance & ice airstrip construction
Snowmobiles	15	Various/minimal	Transportation
Hydracore 2000 diamond drill	2	Maximum depth of 800m with BTW	Drilling
Helicopter (AStar B2)	1	-	Pick and drop of crew and equipment (support)

The equipment will be transported to the Project by fixed wing aircraft from either Yellowknife or Kugluktuk. The planes are normally Twin Otters and would land on McGregor Lake. On property transportation is by helicopter. Snowmobiles are used while the tundra is frozen. The proposed winter trail would bring a D6M Caterpillar, a Bobcat, sled, two snowmobiles, and 3-man crew from Kugluktuk to the McGregor Lake Campsite. This equipment will be used at the Campsite to assist in site preparation and the construction of the ice airstrip.

3.4 Staking, Prospecting and Exploration

Airborne geophysical surveys, snowmobile geophysical surveys, geology and drilling. They exploration methods are discussed separately below in Sections 3.5 and 3.6.

3.5 Geophysical

Two forms of geophysical investigation will be completed: ground geophysical coverage and airborne geophysics. Each method is discussed below.

3.5.1 Ground Geophysical Coverage

Please refer to the Figure 1-2. This figure outlines the project area. Ground geophysical work will occur within the boundary of 5050 Nunavut mineral claims and some IOL.

3.5.2 Airborne Geophysical Coverage

Flights within the boundaries of the MIE project area will be at altitudes below 300m for the purpose of conducting airborne geophysical surveys. 5050 Nunavut will inform the helicopter pilots of the general locations of the muskox herds and will either bypass them or increase altitude to minimize the noise level on the ground.

3.6 Drilling

The drilling program will include approximately 40 boreholes for a total of 10,000m of drilling. See Figure 1-2 for approximate borehole locations. For further details regarding the proposed Uranium, please refer to the attached Uranium Exploration Plan (2007) submitted to the Nunavut Water Board in May 2007 by 5050 Nunavut Ltd. / Adriana Resources Inc.

3.6.1 Mobilization of Drill Equipment

The initial mobilization of the drilling equipment to the project area will be by fixed wing aircraft. Mobilization within the project area will be by helicopter.

3.6.2 Drill Additives

With the presence of permafrost the addition of calcium chloride (salt) in preheated water may be required to keep the holes from freezing, preventing the loss of drill rods. The additives are only added when problems are noted in the water circulation. The additives are either Poly Drill OBX or Poly Drill133X/1330 or other similar substances which are non-toxic and biodegradable.

3.6.3 Drill Cores and Cuttings

All drill cores are collected and will be stored within the drill-core area of the camp. Water used during the drilling will be disposed of in natural depressions, 30m – 100m from the high water mark of any water body. All drill cuttings will be retained in a natural depression, 30m to 100m from the high water mark of any water body.

3.6.4 Drill Water

If drill water is of a poor quality (as according to regulations) it will be disposed of in a properly constructed sump, or an appropriate natural depression located at least 30m to 100m above the high water mark of water bodies.

3.6.5 Abandonment of Drill Holes

All drill sites are cleaned and maintained on a daily basis. Waste materials, garbage and any empty drums or propane cylinders are routinely returned to camp for incineration or removal to Kugluktuk and/or Yellowknife. Upon completion of an individual drill hole the drill rig and supplies are moved to a new site and the drill set up is cleaned of any debris and the area returned, as close as possible, to a pre-disturbed state. For final restoration all old drill sites, sumps and cuttings will be re-inspected to ensure that all areas have been restored as close as possible to a pre-disturbed state.

3.6.6 Radiation Protection Measures

The uranium exploration program will be conducted under the same guidelines used by Hornby Bay Exploration Limited (HBE) for their uranium exploration project. In the chance of encountering Uranium in the drill cores, a Waste Generator Number has been obtained to document hazardous waste that may occasionally be transported from the Project Area for proper disposal. The same individual in charge of documenting the hazardous wastes will have completed a course in the Transportation of Dangerous Goods specifically designed to train geologists in the safe transport of nuclear substances.

For the long term storage of drill core, radiation levels will be reduced to less than 1.0 μ Sv measured at 1.0 meter from the surface and in no instance will the level be allowed to exceed 2.5 μ Sv. In practice, it is anticipated that major uranium intersections will be transported to the Saskatchewan Research Council for testing and storage at their nuclear materials storage facility.

3.7 Transport

Transportation is discussed in two sections; transport to the project site and the airstrip.

3.7.1 Transport to Project Site

Material and personnel will be transported to the Campsite by fixed wing aircraft from either Yellowknife or Kugluktuk. The planes are normally Twin Otters and will land on McGregor Lake. On property transportation will be by helicopter. Snowmobiles are used while the tundra is frozen for local transport of goods in the area of the camp and for safety. The proposed winter trail will bring a D6M Caterpillar, a Bobcat, sled, two snowmobiles, and 3 man crew from Kugluktuk to the McGregor Lake Campsite. This equipment would be used at the Campsite to assist in site preparation and the construction of the ice airstrip.

3.7.2 Airstrip

5050 Nunavut would like to construct an ice airstrip immediately west of the McGregor Lake Campsite for use during the winter months. The exact location will depend on local ice conditions at the time. The airstrip will be approximately 1 mile long by 300ft wide (approximately 14.5 hectares). In the summer months no airstrip will be used as the float planes will make use of the lake for flight activities.

3.8 Water

Water for the camp will be pumped from McGregor Lake using a hose & float system.

Assuming occupancy of 30 people; approximately 3000 L/d would be consumed.

The water intake will be suspended from a float located on the lake. During periods of freeze-up, the water will be pumped from a hole drilled on the northern section of McGregor Lake. The intake end of the pipe for both pumping scenarios will be equipped with a screen to avoid fish entrapment. The screen size will be determined following the calculations outlined in DFO's *Freshwater Intake End-of-Pipe Fish Screen Guidelines*.

3.9 Waste (Grey water, Sewage, Other)

Wastes generated at the site are anticipated to include human sewage, grey water, combustible solid wastes, non-combustible solid wastes, waste oil and hazardous wastes and empty barrels and fuel drums. Each waste stream is addressed separately below.

3.9.1 Sewage

All sewage will be collected with the waterless Pacto toilet system. The resultant encapsulated waste will be burned in the incinerator.

3.9.2 Grey Water

All camp discharge water; estimated for 15 people at 3.0 cubic metres per day of wash water, shower water and kitchen water, will be biologically treated in a sump. The Sump will be located 100m from the high water mark (please refer to Figure 1-3). The sump is self-draining, with all waste water passing through a gravel filter.

3.9.3 Combustible Solid Waste

Volumes of solid waste will vary with the daily population of the camp and project activities.

All combustible solid waste will be burned daily in an incinerator.

3.9.4 Non-combustible Solid Waste

The non-combustible solid waste will be packaged up and flown out to Kugluktuk and/or Yellowknife on the return flight that brought in supplies.

3.9.5 Waste Oil & Hazardous Waste

Waste oil volumes from the camp and related activities will be less than 0.04 cubic metres per week. Waste oil will be incinerated or used for heating purposes. Uranium may also be encountered in the drill cores.

5050 Nunavut currently holds Nunavut Waste Generator # NUG 100022 (attached in the appendices). All such waste will be documented and transported from the Project area for proper disposal. The same individual in charge of documenting the hazardous wastes will have completed a course in the Transportation of Dangerous Goods specifically designed to train geologists in the safe transport of nuclear substances.

For the long term storage of drill core, radiation levels will be reduced to less than 1.0 μSv measured at 1.0 meter from the surface and in no instance will the level be allowed to exceed 2.5 μSv . In practice, it is anticipated that major uranium intersections will be transported to the Saskatchewan Research Council for testing and storage at their nuclear materials storage facility

Please refer to the attached Uranium Exploration Plan for further details regarding the Uranium exploration project.

3.9.6 Empty Barrels & Fuel Drums

The empty barrels/fuel drums will be flown out to Yellowknife or Kugluktuk on the return flight that brought in supplies.

3.10 Fuel

Fuels will be used at the McGregor Lake Camp for heating and equipment operation. The following sections discuss fuel transport and storage, the quantity of fuel present at the camp, secondary containment and fuel transfer.

3.10.1 Fuel transport and Storage

Fuel will be transported to site by float and ski planes. Refer to Spill Contingency Plan section for more information.

Please refer to McGregor Lake Campsite Spill and Contingency Plan for complete details regarding fuel storage, use, transfer, and spill response.

3.10.2 Quantity of Fuel and Storage

See attached Spill and Contingency plan for fuel handling techniques.

Monthly Quantities of Fuel and Oil to be Stored at the Campsite

Fuel Type	Container Type	Number of Containers	Container Capacity (litre)	Total Volume to be Stored On-Site
Diesel (P-50)	Barrels	100	170L	17,000L
Gasoline	Barrels	10	170L	1,700L
Jet B	Barrels	300	170L	51,000L
Propane	Barrels	10	100 lb tank	1000 lbs
Lubricants & Oils	Plastic Jugs	25	20L	500L

The appropriate Material Safety Data Sheets are attached in Appendix B of this Plan.

The types of fuel and lubricants that will be stored on the camp site will consist of P-50 diesel motive, JET-B, Gasoline, Propane and an assortment of hydraulic oils and motor oils. The P-50 diesel motive will be used for heating and powering the generators, pumps, and other related heavy equipment. The JET-B will be used for helicopter refuelling and heating. Gasoline will be used for re-fuelling ski-doo's. Oils and lubricants will be used on the equipment

3.10.3 Secondary Containment

All fuel on the camp site will be stored in 170L structurally sound steel drums with secondary containment in accordance with Section 3.9 of the *CCME Environmental Code of Practice for Aboveground and Underground storage Tank Systems Containing Petroleum and Allied Products* (2003), and located 100m from the high water mark of McGregor Lake.

Upon arrival at the camp all drums are factory sealed and clearly marked. All drums will be inspected daily by 5050 Nunavut personnel for container and bung soundness. Prior to re-fuelling, all drum rubber seals are replaced. Any drum(s) noted to be leaking or showing signs of weakness and fatigue will immediately have all product transferred to a new drum(s). The emptied drum will be hauled off site with the next backhaul shipment to Kugluktuk and/or Yellowknife.

To encourage progressive reclamation, no more than 20% of the fuel drums will be empty at any one time. Any empties that are deemed not worthy of holding fuel are back hauled to landfill sites by and/or flown out in the summer months by plane for proper disposal in approved facilities in to Kugluktuk and/or Yellowknife.

Spill kits will be available at all fuelling storage sites and fuel transfer areas as well as the campsite generator shack and drill rig.

3.10.4 Fuel Transfer

The helicopter will be fuelled directly from the Jet B drums by an electric pump powered by the aircraft's battery. There will be a spill kit and 170 L plastic tray at the site of the refuelling to mitigate any spillage of fuel during the process.

The drill rigs will be refuelled from drums of P-50 that are slung to the site by helicopter. The diesel will be pumped directly into the drill's fuel tank from the drums by an electric pump powered by the drill's battery. There will be a spill kit and 170 L plastic tray on site to mitigate any

spillage of fuel during the process.

The camp stoves and generator will be refuelled directly from the drums of P-50 using a small portable electric pump. A spill kit and 170 L plastic tray will be kept on hand during the procedure.

The small engines (snowmobiles, geophysics generators, and the water pump) will be refuelled with gasoline from 5 gallon jerry cans with a spill kit on hand.

3.11 Products, Chemicals, and Hazardous Materials

The types of materials and the transfer of these materials is discussed below.

3.11.1 Types and Storage

Types and quantities of products and chemicals will be determined once the Drill Contractor has been hired.

The chemicals required for drilling will most likely include: motor oil and grease for the drill; bags of calcium chloride (contained in double lined 50 lb plastic bags that would be stored in large canvas transport sacks until they are moved to the drill); Poly Drill OBX or similar non-toxic product (contained in 50 lb pails).

Household type cleaning products will be used in the kitchen, bathrooms and dry good storage area as well. These products will be stored in the kitchen building.

See above description for the treatment of hazardous wastes.

3.11.2 Transfer

The above materials are transported to the drill by helicopter as needed.

4.0 PUBLIC INVOLVEMENT / TRADITIONAL KNOWLEDGE

5050 Nunavut recognizes the need for and importance of public involvement and the benefits that traditional knowledge brings to the effective management and implementation of exploration projects. These items are discussed below.

4.1 *Opportunities for training and employment of local Inuit beneficiaries*

For the purposes of the campsite and the associated exploration activities, 5050 Nunavut will hire up to 9 local workers as McGregor Lake Campsite employees through Kikiak Construction in Kugluktuk. Additional individuals may be hired as cleaning and cooking staff for the campsite.

4.2 *Workforce Mobilization and Schedule*

Three members of the crew will mobilize via Cat Train (per the 5050 Nunavut 2008 Winter Trail Permit Application) while the other 6 members will be flown to the McGregor Lake campsite via helicopter.

4.3 *Specific Hiring Policies for Inuit Beneficiaries*

The activities associated with the MIE and BVU exploration projects (e.g. the campsite and exploration activities) will employ Nunavut residents when possible.

4.4 *Communities, Groups and Organizations Affected*

The project will contribute to the economic well-being of Kugluktuk community by creating employment opportunities for skilled and unskilled members of the community.

4.5 *Description of any Consultation with Interested Parties*

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

Community	Name	Organization	Date Contacted
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

4.6 Summary of Public Involvement

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.

4.7 Description of how traditional knowledge was obtained, integrated into the project

The local people working in the camp are the major source of traditional knowledge. They help in the camp setup, field activities and personnel safety in the camp based on their knowledge of the terrain, weather and wildlife.

4.8 Discussion of future consultation plans.

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

5.0 DESCRIPTION OF EXISTING ENVIRONMENT

Discussion of the existing environment is divided into the physical and biological environment, and the socioeconomic environment.

5.1 Physical Environment and Biological Environment

The MIE Project is situated on one of the world's largest continental-type magmatic events, the Mackenzie Igneous Event. This event deposited a huge lava volume – an estimated 5 to 10 million cubic kilometres – across Northern Canada. High-grade occurrences of copper, nickel and rich platinum group element (PGE) have been sampled along both walls of the Muskox magma chamber, suggesting that metals have accumulated at the bottom of the chamber.

The McGregor Lake area is characterized by a sub arctic climate with temperature extremes of minus 40° C in the winter to plus 30° C in the summer. The microclimate is very unpredictable and daily temperatures can change rapidly. The biggest single difficulty in the summer is the common occurrence of fog banks forming in the morning and persisting until noon.

The terrain and vegetation surrounding the project site is very typical of the tundra; consisting of a subdued topography with small valleys and gently rolling/sloping hills separated by lakes. The project is located north of the tree line and consists of continuous permafrost extending to an average depth of 300m.

There are numerous animal species that inhabit the area, 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, as well as arctic Char seen in the Coppermine River and Melville creek.

5.2 Socioeconomic Environment

Archaeological studies have not been conducted in the area. The project site is very remote and not visited very often. The land use within the area consists of occasional subsistence harvesting.

6.0 IDENTIFICATION OF IMPACTS AND MITIGATION MEASURES

This section identifies the impacts of this project and outlines the mitigation measures being used.

6.1 Impacts

Minimal environmental impact is anticipated from the construction of the camp

6.2 Potential socioeconomic impacts

Expected socioeconomic impacts include a small increase in the jobs available to the local communities. No general human health impacts are expected to result from the proposed activities.

6.3 Potential for transboundary effects related to the project

Transboundary effects are not applicable to this project.

6.4 Adverse Effects to Species Listed Under the Species at Risk Act

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

6.5 Mitigation Measures

The proposed camp layout and location are such that very little to no vegetation is disturbed and minimal surface disturbance occurs. The mitigation of impacts to permafrost will vary by activity. The shutdown period during ice-break up is timed to protect the permafrost by allowing the lake to thaw so that it may be used instead of the ice-airstrip for plane traffic. During the summer movement about the camp is restricted to prepared surfaces. After the thaw all movement outside of the camp will be by helicopter, with localized movement around drill locations. Camp structures are built so as to minimize the impact on the permafrost.

Food will be stored inside closed buildings and garbage will be incinerated daily to avoid attracting animals. When the camp is no longer required all imported materials will be burned or removed from the site. Any pits or earthworks will be backfill and re-contoured.

Fuel will be stored in 170 litre steel drums in approved containment according to regulations, and will be located 100m from the high water mark. Storage areas will be monitored regularly to detect and manage any leaks. Empty drums will be removed from the site. Spill kits will be maintained in all fuel storage and transfer areas and all staff will be trained regarding the spill contingency plan.

Camp domestic water will be drawn the mouth of Iceberg Creek, on the south west corner of McGregor Lake, in volumes that will not affect lake or creek habitats. All grey water will undergo biological treatment in a sump located 100m from the high water mark.

The drill rigs will be flown to the drill locations to limit ground disturbance. Based on the type of mineral being explored, the drill activities will be conducted a minimum distance of 30 to 100m from any water body. 5050 Nunavut will inform the helicopter pilots of the general

7.0 CUMULATIVE EFFECTS

Exploration around McGregor Lake has been active since 1950, thus leaving the impact of abandoned camps and old drill holes. The project that 5050 Nunavut is proposing is of minimal environmental impact. The campsite is situated in an area of little to no vegetation, and will require no further land disturbances in the area. 5050 Nunavut will return the project areas as close as possible to their natural state once as outlined in their 2008 McGregor Lake Campsite Abandonment and Restoration Plan. As well airborne and snowmobile geophysical surveys are non-intrusive and the drilling that is planned is of low impact.



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NUNAVUT WATER BOARD
NUNAVUT IMALIRIYIN KATIMAYINGI
OFFICE DES EAUX DU NUNAVUT

EXPLORATION/ REMOTE CAMP SUPPLEMENTARY QUESTIONNAIRE

Applicant: 5050 Nunavut Limited **Licence No:** _____

(For NWB Use Only)

ADMINISTRATIVE INFORMATION

1. Environment Manager: Franz Environmental Inc.
Tel: 604-632-9941
Fax: 604-632-9942
Contact: Carlos da Ponte
e-mail: cdaponte@franzenvironmental.com
2. Project Manager: Afzaal Pirzada Tel: 604-629-0250 Fax: 604-629-0923
e-mail: apirzada@adrianaresources.com
3. Does the applicant hold the necessary property rights? Yes
4. Is the applicant an 'operator' for another company (i.e., the holder of the property rights)? If so, please provide letter of authorization.

No
5. Duration of the Project

One year or less Start and completion dates:
X Multi Year: If Multi-Year indicate proposed schedule of on site activities

Start: July 15, 2008 Completion: Ongoing

CAMP CLASSIFICATION

6. Type of Camp
Mobile (self-propelled)
X Temporary
X Seasonally Occupied: February to October
Permanent
Other:

7. What is the design, maximum and expected average population of the camp?

The design population is for an average of 25 people. Occupancy will be seasonal, with anywhere from 1 to 30 people during the operational period. The exploration program for the MIE Project and BVU Project will run from February to October with a camp shutdown period from November to February. During the winter shut-down, one or two people may remain on site as caretakers and to watch the camp.

8. Provide history of the site if it has been used in the past.

The Muskox Intrusion has been under exploration since 1956, numerous companies examined the intrusion but no significant deposits were outlined. Studies undertaken on the area include: geophysical and geochemical surveys and geological mapping of the Marginal Series near McGregor Lake; property-wide geophysical included: VLF, magnetics, gravity, VTEM, and GEOTEM, and SQUID; and numerous, highly anomalous grab samples were collected from the Pyrrhotite Lake, Southeast Speers Lake, Sulphide Breccia, Trench 87-1, Chalco Cliffs, and Chromite Reef areas.

A Phase I/II Environmental Site Assessment was conducted in 2004 by Golder and Associates on behalf of INAC. This report provides an inventory of the historical activities conducted at the camp and some quantification of the environmental effects from these activities.

CAMP LOCATION

9. Please describe proposed camp location in relation to biogeographical and geomorphological features, and water bodies.

The existing McGregor Lake Campsite (*115 deg, 14', 27.353"W, 66 deg, 54', 45.96"N*) is at the northernmost tip of the lake, 100m from the Lake's high water mark. The camp is located on a flat bench of glacial gravel. The terrain and vegetation surrounding the project site is very typical of the tundra; consisting of subdued topography with small valleys and gently rolling/sloping hills separated by lakes. The project is located north of the tree line and consists of continuous permafrost extending to an average depth of 300m.

There are numerous animal species that inhabit the area, 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 local lakes are dominantly yellow-fin lake trout. In the rivers the red – fin lake trout predominate with common grayling, and very rare pike, as well as arctic Char seen in Coppermine River and Melville creek.

10. How was the location of the camp selected? Was the site previously used? Was assistance from the Regional Inuit Association Land Manager sought? Include maps and/or aerial photographs.

5050 Nunavut originally proposed to establish a new camp at Iceberg Creek along the southwest shore of McGregor Lake, however, as an alternative to setting up a new camp, the Kitikmeot Inuit Association required 5050 Nunavut use an abandoned exploration camp (now known as the McGregor Lake Campsite) along the north shore of McGregor Lake. This alternative location was used historically by other mining companies (Figure 1-1).

11. Is the camp or any aspect of the project located on:

Crown Lands	Permit Number (s)/Expiry Date: N/A
Commissioners Lands	Permit Number (s)/Expiry Date: N/A
X Inuit Owned Lands	Permit Number (s)/Expiry Date: KTL306C016/expires July 15 th 2008. This application is part of its renewal/amendment

12. Closest Communities (direction and distance in km):

The site is about 100 km south of Kugluktuk

13. Has the proponent notified and consulted the nearby communities and potentially interested parties about the proposed work?

The communities are aware of the exploration that has been occurring in the area. Sixty community members attended a community meeting at the Kugluktuk Arena in the summer of 2007. 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 has accomplished. 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 effects 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 & BVU project (e.g. the McGregor Lake Campsite and exploration) will continue to employ residents when possible.

The socio-economic impact is expected to be positive. 5050 Nunavut will hire up to 9 local workers as camp field staff through Kikiak Construction in Kugluktuk. Further positions will be offered for cooking and cleaning staff.

14. Will the project have impacts on traditional water use areas used by the nearby communities? Will the project have impacts on local fish and wildlife habitats?

The environmental impact is expected to be minimal. The camp layout and use of existing structures will minimize surface disturbance. Food will be stored inside closed buildings and garbage will be incinerated daily to avoid attracting animals. Campsite activities, including fuel storage and refueling, will be conducted a minimum distance of 30m from any water body.

The drill rigs will be flown to the drill locations to limit ground disturbance. Based on the type of mineral being explored, the drill activities will be conducted a minimum distance of 30 to 100m from any water body. 5050 Nunavut will inform the helicopter pilots of the general locations of the muskox herds and will either bypass them or increase altitude to minimize the noise level on the ground. If bears are nearby, work will be aborted. Falcon nests will also be avoided.

All fuel on the camp site will be stored in 170L structurally sound steel drums with secondary containment in accordance with Section 3.9 of the CCME Environmental Code of Practice for Aboveground and Underground storage Tank Systems Containing Petroleum and Allied Products (2003), and located 100m from the high water mark of McGregor Lake. The Spill Contingency Plan discusses the preventative measures 5050 Nunavut will abide by to avoid spills, as well as spill cleanup strategies.

The water intake will be located in McGregor Lake using a 'hose & float' system. The intake end of the pipe will be equipped with a screen to avoid fish entrapment. The screen size will be determined following the calculations outlined in DFO's Freshwater Intake End-of-Pipe Fish Screen Guidelines.

PURPOSE OF THE CAMP

15. Mining (includes exploration drilling):

The purpose of the camp is to support exploration activities associated with 5050 Nunavut's MIE and BVU exploration projects in the area.

16. Activities (check all applicable)

Preliminary site visit
X Prospecting
X Geological mapping
X Geophysical survey
X Diamond drilling
X Reverse circulation drilling
Evaluation Drilling/Bulk Sampling (also complete separate questionnaire)
Other:

17. Type of deposit (exploration focus):

- Lead Zinc
- Diamond
- Gold
- X Uranium
- Other: Nickel, Copper, Platinum, Palladium

DRILLING INFORMATION

18. Drilling Activities

- X Land Based drilling
- X Drilling on ice

For further information regarding the 5050 Nunavut's uranium exploration activities please refer to the Uranium Exploration Plan submitted by Adriana Resources Inc. (previously submitted to the NWB May 7, 2007)

19. Describe what will be done with drill cuttings?

All drill cuttings will be retained in a natural depression, 30m from the high water mark of any water body. It will be ensured that when drilling on ice the return water released is non-toxic, and not result an increase in total suspended solids in the immediate receiving waters above the Canadian Council of Ministers for the Environment (CCME) Guidelines. In the case of uranium exploration, drill cuttings and mud with a uranium concentration of 0.05% will be collected and disposed of down the drill hole and the hole will be sealed. Any drill hole that encounters mineralization with uranium content greater than 1.0% over a length >1 meter, and with a meter-percent concentration >5.0, will be sealed by grouting over the entire length of the mineralization zone and not less than 10 meters above or below each mineralization zone.

20. Describe what will be done with drill water?

If drill water is of a poor quality (as according to regulations) it will be disposed of in a properly constructed sump, or an appropriate natural depression located at least thirty meters above the ordinary high water mark of water bodies. Upon completion of the drill hole the sump will be backfilled and returned as close as possible to the pre-disturbed state of surrounding areas.

21. List the brand names and constituents of the drill additives to be used? Includes MSDS sheets and provide confirmation that the additives are non-toxic and biodegradable.

The drill additives that may be used include poly drill OBX, and poly drill 133-x (or other similar nontoxic biodegradable product. They are both liquid polymers, and do not contain hazardous ingredients. See attached MSDS sheets for exact chemical constituents.

22. Will any core testing be done on site? Describe

The cores will be split, logged, sampled and stored at the campsite.

SPILL CONTINGENCY PLANNING

23. The proponent is required to have a site specific Spill Contingency Plan prepared and submitted with the application. This Plan should be prepared in accordance with the *NWT Environmental Protection Act, Spill Contingency Planning and Reporting Regulations, July 22, 1998* and *A Guide to the Spill Contingency Planning and Reporting Regulations, June 2002*. Please include for review.

Please refer to the McGregor Lake Campsite Spill and Contingency Plan.

24. How many spill kits will be on site and where will they be located?

Five spill kits will be maintained on site. They will be located at the generator room, fuel storage and transfer areas, helipad, and on each drill rig (2).

25. Please describe the types, quantities, and method of storage of fuel and chemicals on site, and provide MSDS sheets.

Fuel Type	Container Type	Number of Containers	Container Capacity (litre)	Total Volume to be Stored On-Site
Diesel (P-50)	Barrels	100	170L	17,000L
Gasoline	Barrels	10	170L	1,700L
Jet B	Barrels	300	170L	51,000L
Propane	Barrels	10	100 lb tank	1000 lbs
Lubricants & Oils	Plastic Jugs	25	20L	500L

See attached copy of MSDS sheets.

*In the chance of encountering Uranium in the drill cores, 5050 Nunavut currently holds a Waste Generator # NUG100022 which will be used to document hazardous waste that may occasionally be transported from the Project area for proper disposal. The same individual in charge of documenting the hazardous wastes will have completed a course in the Transportation of Dangerous Goods specifically designed to train geologists in the safe transport of nuclear substances.

For the long term storage of drill core, radiation levels will be reduced to less than 1.0 μ Sv measured at 1.0 meter from the surface and in no instance will the level be allowed to exceed 2.5 μ Sv. In practice, it is anticipated that major uranium intersections will be transported to the Saskatchewan Research Council for testing and storage at their nuclear materials storage facility.

WATER SUPPLY AND TREATMENT

25. Describe the location of water sources

Water for the camp will be pumped from McGregor Lake using a 'hose and float' system, while water for the drilling operations will be pumped from lakes and streams nearby the drill sites.

26. Estimated water use (in cubic metres/day):

Domestic Use: 3m³/day for 30 people Water Source: McGregor Lake
Drilling: 260m³ for 10,000m of drilling Water Source: Nearby lakes & streams
Other: _____ Water Source:

27. Describe water intake for camp operations? Is the water intake equipped with a mesh screen to prevent entrapment of fish? (see *DFO 1995, Freshwater Intake End-of-Pipe Fish Screen Guideline*) Describe:

The water for camp operations will be pumped from McGregor Lake using a 'hose & float' system. The intake end of the pipe will be equipped with a screen to avoid fish entrapment. The screen size will be determined following the calculations outlined in DFO's Freshwater Intake End-of-Pipe Fish Screen Guidelines.

28. Will drinking water quality be monitored? What parameters will be analyzed and at what frequency?

Water for human consumption will pass through a UV filtration system and/or brought in as bottled drinking water. Water quality sampling will be conducted in accordance with the Public Health Act *Public Water Supply Regulations (R.R.N.W.T 1990, c.P-23 including amendments R-015-2004)*

29. Will drinking water be treated? How?

Water for human consumption will pass through a UV filtration system and/or brought in as bottled drinking water.

30. Will water be stored on site?

Water for domestic use will be stored in three 305 gallon water tanks.

WASTE TREATMENT AND DISPOSAL

Describe the characteristics, quantities, treatment, and disposal methods for:

X Camp Sewage (blackwater)

All sewage will be collected with a waterless Pacto toilet system. The resultant encapsulated waste will be burned in the incinerator.

X Camp Greywater

All camp discharge water; estimated for 30 people at 3.0 cubic metres per day of wash water, shower water and kitchen water, will be biologically treated in a sump. The Sump will be located 100m from the high water mark.

X Solid Waste

Volumes of solid waste will vary with the daily population of the camp and project activities. All combustible solid waste will be burned daily in an incinerator. The non-combustible solid waste will be packaged up and flown out to Yellowknife on the return flight that brought in supplies.

X Bulky Items/Scrap Metal

Bulky items and scrap metal will be back hauled from the site for recycling or disposal in the Yellowknife landfill.

X Waste Oil/Hazardous Waste

Waste oil volumes from the camp and related activities will be less than 0.04 cubic metres per week. Waste oil will be incinerated or used for heating purposes. There will be no hazardous materials on the project site.

X Empty Barrels/Fuel Drums

The empty barrels/fuel drums will be flown out to Yellowknife or Kugluktuk on the return flight that brought in supplies. They will be returned to the vendor.

Other:

33. Please describe incineration system if used on site. What types of wastes will be incinerated?

The site will be equipped with a Smart Ash cyclonic Barrel Burner® incinerator, or similar type, which burns 50 lbs/hour. It will be used to dispose of domestic wastes from the kitchen and camp facilities as well as waste oil.

34. Where and how will non-combustible waste be disposed of? If in a municipality in Nunavut, has authorization been granted?

The non-combustible waste is back hauled to the Yellowknife landfill.

35. Describe location (relative to water bodies and camp facilities) dimensions and volume, and freeboard for all sumps (if applicable).

A 2 m × 2 m × 1 m sump will be dug in well-drained soils within 100 m of the camp, and 100 m away from the high water mark of water bodies.

36. Will leachate monitoring be done? What parameters will be sampled and analyzed, and at what frequency?

No, any leachate from the greywater sump will be biologically treated and is not expected to pose a problem.

OPERATION AND MAINTENANCE

37. Have the water supply and waste treatment and disposal methods been used and proven in cold climate? What known O&M problems may occur? What contingency plans are in place?

Yes, the water supply and waste treatment and disposal methods have been used and proven in cold climates.

Water supply: O&M problems that may occur include a malfunctioning pump, or malfunctioning of the generator creating power to run the pump and heat the water intake line. Contingency: There is enough room in all of the water tanks to hold 915 gallons of water, which will hold over the camp until either the pump or generator is fixed or replaced.

ABANDONMENT AND RESTORATION

38. Provide a detailed description of progressive and final abandonment and restoration activities at the site.

Please refer to the attached McGregor Lake Campsite Abandonment and Restoration Plan (2008)

BASELINE DATA

39. Has or will any baseline information be collected as part of this project? Provide bibliography.

Baseline data has not been collected for this project.

REGULATORY INFORMATION

40. At a minimum, you should ensure you have a copy of and consult the documents below for compliance with existing regulatory requirements:

- ☑ ARTICLE 13 – *NCLA -Nunavut Land Claims Agreement*
- ☑ NWNSRTA – *The Nunavut Waters and Nunavut Surface Rights Tribunal Act, 2002 I Northwest Territories Waters Regulations, 1993*
- ☑ NWB - Water Licensing in Nunavut - Interim Procedures and Information Guide for Applicants
- ☑ NWB - Interim Rules of Practice and Procedure for Public Hearings
- ☑ RWED – *Environmental Protection Act, R-068-93- Spill Contingency Planning and Reporting Regulations, 1993*
- ☑ RWED A Guide to the Spill Contingency Planning and Reporting Regulations, 2002 I NWTWB - Guidelines for Contingency Planning
- ☑ *Canadian Environmental Protection Act, 1999 (CEPA)*
- ☑ *Fisheries Act, RS 1985 - s.34, 35, 36 and 37*
- ☑ DFO - Freshwater Intake End of Pipe Fish Screen Guideline
- ☑ NWTWB - Guidelines for the Discharge of Treated Municipal Wastewater in the NWT
- ☑ Canadian Council for Ministers of the Environment (CCME); Canadian Drinking Water Quality Guidelines, 1987
- ☑ Public Health Act - Camp Sanitation Regulations
- ☑ Public Health Act - Water Supply Regulations
- ☑ *Territorial Lands Act and Territorial Land Use Regulations; Updated 2000*

**5050 Nunavut Limited
McGregor Lake Campsite
Spill and Contingency Plan, 2008**

Prepared for:

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1818 – 701 West Georgia St.
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1. Introduction

5050 Nunavut Limited (5050 Nunavut) was incorporated under the laws of Nunavut and presently holds 100 claims comprising 253,796.89 acres surrounding All Night Lake and McGregor Lake, and on Inuit Owned Lands (IOL). These properties are located between 60 and 100 kilometres south of Kugluktuk, Nunavut and are known as the All Night Lake Property, the McGregor Lake Property, and IOL Property (Figure 1-2). Together the properties comprise the Mackenzie Igneous Event Project (the "MIE Project") targeting Ni, Cu, Pt group element (PGE) mineralization, and the Bear Valley Uranium Project (the "BVU Project") for uranium exploration. The exploration program is at grass root stage and is considered to be low impact. It includes regional and detailed geological mapping, prospecting and sampling, airborne and ground based geophysical surveys and drilling.

5050 Nunavut is a wholly owned subsidiary of Adriana Resources Incorporated (Adriana) and has its corporate office at Adriana's office in Vancouver Canada. 5050 Nunavut's corporate office address is:

Adriana Resources Inc.
Suite 1818, 701 West Georgia Street
Vancouver, BC V7Y 1C6

The principals in each company are:

- Mike Beley, President and Director of Adriana and
- Gordon Addie, President of 5050 Nunavut.

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 and bulk fuel storage at McGregor Lake to support exploration activities associated with the MIE and Bear Valley Projects. The License is valid until July 15, 2008. This license was issued to establish a new camp at Iceberg Creek along the southwest shore of McGregor Lake.

As an alternative to setting up a new camp, the Kitikmeot Inuit Association (KIA) required 5050 Nunavut use an abandoned exploration camp (to be known as the McGregor Lake Campsite) along the north shore of McGregor Lake used historically by other mining companies (Figure 1-1). This alternative location for the camp will support 5050 Nunavut's mineral exploration activities associated with the MIE and Bear Valley Project. Figure 1-2 shows the location of the campsite as well as the proposed drill targets

This Spill and Contingency Plan is provided as part of the amendment and renewal of KTL306C016 to expand 5050 Nunavut's drilling program to 10,000m on their MIE and Bear Valley properties and the use/expansion of the McGregor Lake Campsite to accommodate 25-30 personnel. Figure 1-3 presents the proposed camp layout.

This spill plan is in support of any activities conducted by 5050 Nunavut within the MIE and BVU project areas and shall be in effect when approval is obtained by the appropriate authorizing agencies, and is subject to revisions as may be necessitated by future programs.

The MIE and BVU project areas are remote; no communities are located nearby. Thus no persons other than 5050 Nunavut personnel and various contractor personnel are expected to

be affected in the event of an incident. All 5050 Nunavut employees, whether permanent or casual, and program contractors, are required to be trained in 5050 Nunavut policies and procedures prior to engaging in work at the McGregor Lake campsite and the surrounding work area.

5050 Nunavut is aware that planning for an emergency situation is not an option but an obligatory activity. Campsite and field staff will be familiar with the Spill and Contingency plan. As well, this Spill and Contingency Plan will be posted in the living quarters, Drill Shack(s) and will be distributed to supervisory personnel for distribution to staff and the drilling contractor.

2. Camp Details

The following outlines the section describes the campsite, its facilities, and period of operation.

2.1 Site Description

The campsite is situated on the north shore of McGregor Lake, 100 m from the high water mark of McGregor Lake (Figure 1-3). The camp is located on a flat bench of glacial gravel.

2.2 Camp Description

The camp is designed to accommodate 25 – 30 people. Occupancy will be seasonal, with anywhere from 1 to 30 people living at the camp during the operational period. Figure 2-1 shows the camp layout.

2.3 Camp Facilities

On-site facilities include: lakeside dock, kitchen, washrooms, sleeping accommodations, direct dial satellite phone, full time helicopter support and a full time certified First Aid Attendant as required by NWT-NT WCB.

General Waste Disposal

Sewage treatment will be confined to Pacto style toilets. All solid waste will be collected and incinerated on site daily. All solid waste that cannot be incinerated will be flown to Yellowknife or Kugluktuk for further disposal.

2.4 Camp Operation Times

Campsite preparation will begin in February or March 2008, and the exploration program for the MIE and BVU projects will run from March to October. The camp shutdown period will be from October to March. During the winter shut-down the camp will either be winterized, or if warranted, one or two people will remain on site as caretakers.

3. Personnel Training

The obligations and responsibilities of the Spill Contingency Plan awareness, maintenance and preparedness begin with the arrival of employees and contractors. Particularly in the case of new arrivals; supervisors will provide an orientation to acquaint worksite staff with Company policies, procedures, and health and safety issues. This orientation will include, but will not be limited to:

- Location of all fuels and fuel products
- Location of WHMIS and MSDS sheets
- Location of spill kits and fuel spill equipment
- Instruction/direction of who uses fuel and fuel products and how to safely use, store and add fuel to equipment
- Instruction of the use of spill kits
- Instruction on the use of spill equipment
- Instruction on the clean-up and disposal of fuel products contained in a potential fuel spill

Staff will be required to familiarize themselves with the Spill Contingency Plan and their respective assigned roles. All campsite and field personnel will be trained in the areas of environmental awareness and site safety.

4. Fuel and Chemical Product Transport & Storage

This section discusses the required fuels, how they will be handled, stored and transferred.

4.1 Transport to Site

The McGregor Lake Campsite and the associated project areas are remote. Fuel will be transported to the Camp by fixed wing aircraft: float plane in the summer and ski plane in the winter.

4.2 Fuel Types and Quantities

The types of fuel and lubricants that will be stored on the campsite will consist of P-50 diesel motive, JET-B, Gasoline, Propane and an assortment of hydraulic oils and motor oils. The P-50 diesel motive will be used for heating purposes and powering generators, pumps, drill rigs, Caterpillar, Bobcat and other related heavy equipment. The JET-B will be used for helicopter refuelling. Gasoline will be used for re-fuelling snowmobiles and other small equipment. The propane will be on site in the event it is required for the drill-rigs. Oils and lubricants will be used on the equipment.

The following table provides the type of fuel and the containers the fuel will be stored in.

Table 4-1
Monthly Quantities of Fuel and Oil to be Stored at the Campsite

Fuel Type	Container Type	Number of Containers	Container Capacity (litre)	Total Volume to be Stored On-Site
Diesel (P-50)	Barrels	100	170L	17,000L
Gasoline	Barrels	10	170L	1,700L
Jet B	Barrels	300	170L	51,000L
Propane	Barrels	10	100 lb tank	1000 lbs
Lubricants & Oils	Plastic Jugs	25	20L	500L

The appropriate Material Safety Data Sheets are attached in Appendix B of this Plan.

Waste oil volumes from the camp and related activities will be less than 0.04 cubic metres per

week. Waste oil will be incinerated or used for heating purposes. Uranium may also be encountered in the drill cores.

5050 Nunavut currently holds Nunavut Waste Generator # NUG 100022 (attached in the appendices). All such waste will be documented and transported from the Project area for proper disposal. The same individual in charge of documenting the hazardous wastes will have completed a course in the Transportation of Dangerous Goods specifically designed to train geologists in the safe transport of nuclear substances.

For the long term storage of drill core, radiation levels will be reduced to less than 1.0 μSv measured at 1.0 meter from the surface and in no instance will the level be allowed to exceed 2.5 μSv . In practice, it is anticipated that major uranium intersections will be transported to the Saskatchewan Research Council for testing and storage at their nuclear materials storage facility

Please refer to the attached Uranium Exploration Plan for further details regarding the Uranium exploration project.

4.3 Fuel Storage

All fuel on the camp site will be stored in 170L structurally sound steel drums with secondary containment in accordance with Section 3.9 of the *CCME Environmental Code of Practice for Aboveground and Underground storage Tank Systems Containing Petroleum and Allied Products* (2003), and located 100m from the high water mark of McGregor Lake.

Upon arrival at the camp all drums are factory sealed and clearly marked. All drums will be inspected daily by 5050 Nunavut personnel for container and bung soundness. Prior to re-fuelling, all drum rubber seals will be replaced. Any drum(s) noted to be leaking or showing signs of weakness and fatigue will immediately have all product transferred to a new drum(s). The discarded drum will then be hauled off site with the next backhaul shipment to Yellowknife.

To encourage progressive reclamation, no more than 20% of the fuel drums will be empty at any one time. Any empties that are deemed not worthy of holding fuel will be back hauled to landfill sites by and/or flown out in the summer months by plane for proper disposal in approved facilities in Yellowknife or Kugluktuk.

Spill kits will be available at all fuelling storage sites and fuel transfer areas as well as the campsite generator shack and drill rig.

4.4 Fuel Transfer

The helicopter will be fuelled directly from the JetB drums by an electric pump powered by the aircraft's battery. A spill kit and 170 L plastic tray will be placed beneath the pump handle to catch any potential leaks. . There will also be a spill kit on site to mitigate any spillage of fuel during the process.

The drill will be refuelled from drums of P-50 that are slung to the site by helicopter. The diesel will be pumped directly into the drill's fuel tank from the drums by an electric pump powered by the drill's battery. A spill kit and 170 L plastic tray will be placed beneath the pump handle to catch any potential leaks. . There will also be a spill kit on site to mitigate any spillage of fuel

during the process.

The camp stoves and generator will be refuelled directly from the drums of P-50 using a small portable electric pump. A spill kit and 170 L plastic tray will be placed beneath the pump handle to catch any potential leaks. . There will also be a spill kit on site to mitigate any spillage of fuel during the process.

The small engines (snowmobiles, geophysics generators, and the water pump) will be refuelled with gasoline from 5 gallon jerry cans with a spill kit on hand.

5. Basic Steps in the Event of a Spill

For the purposes of flammable liquids, Environment Canada defines a spill as a volume greater than 100L. 5050 Nunavut believes that, in the case of a spill or environmental emergency, it is necessary to react immediately in the most safe and environmentally responsible manner. No spill or incident (leak or drip) is so minor that it can be ignored. The following outlines the chain of communication and responses that will be followed in the event of a spill or other environmental emergency.

5.1 Procedure to Follow in the Event of a Spill

5050 Nunavut personnel will follow the following basic response steps in the event of a spill at the McGregor Lake campsite and their MIE and BVU exploration areas:

1. Ensure the safety of all persons at all times.
2. Find and identify the spill substance and its source, and, if possible, stop the process or shut off the source.
3. Inform the immediate supervisor or his/her designate at once by SAT Phone, so that he/she may take appropriate action. (Appropriate action includes the notification of a government official, if required).
4. Contain the spill or environmental hazard, as per its nature, and as per the advice of the Spill Line and Environmental Advisers, as required.
5. Implement any necessary cleanup or remedial action.

5.2 Chain of Command

The following provides the chain of command to be followed in the event of a spill:

1. Immediately notify one of the following individuals of a spill:
 - a. The President of 5050 Nunavut, Gordon Addie,
 - b. The Exploration Manager, Anthony Kovacs
 - c. The Project Manager, Afzaal Pirzada
 - d. The Camp Manager, John Maclean

Table 5-1
Roles and Responsibilities

Individual	Role Location Contact #s	Responsibilities
Gordon Addie, 5050 Nunavut Ltd. President	Vancouver: 604-629-0250 McGregor Lake Campsite: Numbers to be provided once a communication system is chosen and set up for the camp.	Assume authority over the spill scene and personnel involved. Activate the Spill & Contingency Plan. Report, or direct Response Co-coordinator (if a different individual) to report, the spill to the NWT 24-Hour Spill Report Line (867) 920-8130.
Afzaal Pirzada Project Manager	Vancouver: 604-629-0250 McGregor Lake Campsite: Numbers to be provided once a communication system is chosen and set up for the camp.	In the absence of the President, assume authority over the spill scene and personnel involved. Activate the Spill & Contingency Plan. Report, or direct Response Co-coordinator (if a different individual) to report, the spill to the NWT 24-Hour Spill Report Line (867) 920-8130.
Anthony Kovacs, Exploration Manager	Vancouver: 604-629-0250 McGregor Lake Campsite: Numbers to be provided once a communication system is chosen and set up for the camp.	In the absence of the President or Project Manager, assume authority over the spill scene and personnel involved. Activate the Spill & Contingency Plan. Report, or direct Response Co-coordinator (if a different individual) to report, the spill to the NWT 24-Hour Spill Report Line (867) 920-8130.
John Maclean, Camp Manager Responsibilities:	McGregor Lake Campsite: Numbers to be provided once a communication system is chosen and set up for the camp.	Camp Manger will be the first person to be on site and may assume authority over the spill scene and personnel involved in the absence of the above persons. Activate the Spill & Contingency Plan. Report, or direct Response Co-coordinator (if a different individual) to report, the spill to the NWT 24-Hour Spill Report Line (867) 920-8130.

Individual	Role Location Contact #s	Responsibilities
Franz Environmental Inc., Environmental Advisers	Phone : (604) 632-9941 (Vancouver) Fax : (604) 632-9942 (Vancouver) Contact: Thomas Franz Carlos da Ponte	Advisor provides expert advice on environmental/logistical cleanup requirements. Each/both may provide assistance in developing any required testing or monitoring program, or in activating an existing program. Each/both may recommend preventive measures.

If the spill is minor (such as dripping of fuel during transfer, which can be absorbed by padding, absorbent crystals, etc.) then one of these individuals should be contacted at the end of the business day.

2. Once 5050 Nunavut senior staff (above) have been notified, they will then notify the field response coordinator or his/her designate to contact the 24-Hour Spill Line, if warranted, as follows:

24 HOUR SPILL LINE

Phone: (867) 920-8130
FAX: (867) 873-6924

A "Spill Report Form" (Appendix C) will be filled out as completely as possible before or after contacting the 24-Hour Spill Line by the field response coordinator.

6. Taking Action

The following sections outline the 5050 Nunavut's preventative and clean-up procedures to be followed during all 5050 Nunavut activities.

6.1 Before the Fact: Preventive Measures

The following actions illustrate the approach of 5050 Nunavut to environmental care, by minimizing the potential for spills during fuel handling, transfer or storage:

1. Fuel transfer hoses with camlock mechanisms are to be used.
2. Carefully monitor fuel content in the receiving vessel during transfer.
3. If, during fuel transfer, drips are noted, clean up drips and minor spills immediately using absorbent pads.
4. Inspect drums daily, tanks and hoses for leaks or potential to leak.
5. Use plastic drip pans at all fuel transfer sites when and where fuel is transferred.
6. Use blue absorbent matting under any stationary machinery (e.g., bobcat, generator-sets and drill engines).
7. Train personnel, especially those who will be operators, in proper fuel-handling and spill response procedures.

6.1.1 Response Equipment and Proximity

Equipment available to aid in spill response and remediation includes:

- Spill kits will be available at all fuelling storage sites and fuel transfer areas as well as the campsite generator shack and drill rig. Table 6-1 documents the regular contents of a spill kit.

Table 6-1
Contents of a Regular Spill Kit

- | |
|---|
| <ul style="list-style-type: none">• Absorbent Pads (Oil, & Diesel)• Universal Absorbent Pads (Antifreeze & Non-Haz)• 3" x 4' Absorbent Socks (Oil, Gas & Diesel)• HD Hazmat Disposal Bags• Nitrile Gloves |
|---|

6.2 After the Fact: Mitigative Measures

1. Primary steps to take when a spill occurs:
 - a) Ensure your own safety and that of others around you, beginning with those nearest to the scene.
 - b) Control danger to human life, if necessary.
 - c) Identify the source of the spill.
 - d) Notify the appropriate member of the chain of command, as soon as is practical; they in turn notify the Response coordinator (if a different individual).

- e) Assess whether or not the spill can readily be stopped.
- f) Contain or stop the spill at the source, if possible, by following these actions:
 - i) If filling is in progress, STOP AT ONCE.
 - ii) Close or shut off valves.
 - iii) Place absorbent pads at the foot of the tank or barrel to prevent seepage into the ground or runoff of fuel.
2. Secondary steps to take:
 - a) Determine status of the spill event.
 - b) If not reported under 1d), report incident and steps taken to the appropriate member of the chain of command
3. If a fuel container is damaged and/or leaking, pump fuel from the damaged and/or leaking container into a refuse container.
4. Notify the 24-hour Spill Report Line, and receive further instructions from the appropriate contact agencies listed in Appendix A (e.g., disposal of contaminated soil or ice/snow in sealed containers for removal from site, etc.).
5. Complete and FAX a copy of the Spill Report (Appendix C)
6. Notify permitting authorities and the Lands Manager. If possible, resume cleanup and containment.

6.2.1 Mitigative Equipment and Proximity

- A helicopter can be dispatched to the drill rigs from the campsite area within minutes.
- Spill-response equipment is available from Kugluktuk, 35 minutes away by air, and or from Yellowknife. Miscellaneous equipment at the 5050 Nunavut camp area (Table 6-2) is available for spill response and cleanup, including hand tools, shovels (earth and snow), fire extinguishers, fuel transfer pumps, water pumps, miscellaneous hoses and fittings.
- Personnel, including first aid attendant and cleanup crews are available for immediate dispatch from the camp site.

Table 6-2
General Response Inventory at the Camp

Fire extinguishers (valid/recharged) in each structure.
Water pump, hoses and fittings
Hammers, shovels and picks of assorted sizes
Assorted 10 L plastic pails
Ice auger
Plastic garbage bags
Plastic tarps
Extra bundles of absorbents
Fuel-transfer pumps

6.3 Managing Fuel Spills in Various Environments

5050 Nunavut conducts activities in a variety of different environments that react differently to fuel spills. As such it is important that environment specific procedures be followed in order to minimize the potential environmental impact. These environments include rock, soil, ice, snow, and water. However, no matter the environment, spills must be managed following a similar set of general steps:

1. **Containment** of spill;
2. **Disposal** of spilled product;
3. **Remediation** of the affected area.

Further advice on how to proceed with managing a spill will be obtained from the 24-Hour Spill Line.

6.3.1 Procedure for Spills on Land and Rock

As soon as possible either during or after the incident, contact the 24-Hour Spill Line (ensuring the government agencies are informed).

The following procedures are to be followed for hydrocarbon spills on land (soil) rock outcrops, boulder fields, etc.

Containment

Construct a berm of peat, native soil or snow down slope of the seepage or spill.

Inform response coordinator or his/her designate to obtain plastic tarp(s) and absorbent sheeting on-site.

Place the tarp in such a way that the fuel can pool for collection and removal (i.e., at the foot of the berm). If there is a large volume of spilled product, pump the liquid into spare drums, and dispose of product by transporting to a liquid-waste disposal facility.

Control petroleum-product sheening on vegetation by applying a thin dusting of Spagh-Zorb or other ultra-dry absorbent to the groundcover.

Place absorbent matting on the rock to soak up spilled product, etc. Dispose of saturated matting in an empty drum, labelling and sealing the drum when it is full.

Removal

Remove the labelled and sealed drums offsite by plane or helicopter to Yellowknife where they are dealt with accordingly.

Remediation

Receive instruction from the appropriate member of the chain of command (Table 5-1) or contact agencies listed in Appendix A regarding collection of the contaminated soil or vegetation, its removal and site cleanup/restoration.

6.3.2 Fuel Spills on Water

As soon as possible, either during or after the incident, contact the 24-Hour Spill Line (ensuring the government agencies are informed).

It is important to limit immediately the extent of spills on water. The following is the procedure to be implemented when a spill incident occurs:

Containment

If the spill is small enough to be controlled by absorbent pads or a boom, deploy hydrophobic (water repellent) absorbent pads (blue matting) on water. Hydrophobic pads readily absorb hydrocarbons, and not water.

Containment booms should be deployed on the water surface to "fence in" the spill area gradually and to prevent it from spreading by encircling the spill with the boom. Absorbent mats will then be deployed to manage any hydrocarbon that may have escaped containment. Keep in mind that environmental factors such as high winds and wave action can adversely affect attempts at spill cleanup.

If the volume of the hydrocarbon spill is so great that it cannot be absorbed by the hydrophobic absorbent pads and or booms, the contained hydrocarbon will be pumped into refuse drums.

Removal

Once a boom is in place, a skimmer may be brought on-scene to aid in capture of the hydrocarbon; once captured, the product should be pumped to the empty refuse drums and held for disposal.

Remediation

Receive instruction from the appropriate member of the chain of command (Table 5-1) or contact agencies listed in Appendix A regarding collection of the contaminated soil or vegetation, its removal and site cleanup/restoration.

6.3.3 Fuel Spills on Snow and Ice

As soon as possible, either during or after the incident, contact the 24-Hour Spill Line (ensuring the government agencies are informed).

Hydrocarbons spilled on snow behave much differently than hydrocarbons spilled on ice. As a result, the following two sections provide information and direction on what to do in these two

different scenarios.

6.3.4 Spills on Snow

By its nature, snow is an absorbent, and fuel spilled on snow is collected with relative ease, e.g., by shovel, in the case of small spills.

Containment & Removal

Assess the nature of the spill. Necessary equipment might include shovels, plastic tarp(s), and empty drums.

Shovel or scrape contaminated snow and deposit in empty refuse drums.

If the spill is more extensive, build peat-bale berms or compacted-snow berms. Place absorbent pads behind the berm and secure them in place with more snow. The snow with the absorbent pads inside will serve to contain the flow of the spill. Continue this process until the horizontal flow has been contained.

Once contained, any liquid can be pumped into a refuse drum. Snow and absorbent pads should also be contained in refuse drum after excess liquid has been removed.

Remediation

Receive instruction from the appropriate member of the chain of command (Table 5-1) or contact agencies listed in Appendix A.

6.3.5 Spills on Ice

Before work (e.g. spill management) or travel can occur on an ice surface, the ice has to be the required thickness according to safety standards (Table 6-3 and Table 6-4).

Containment

Spills on ice are handled in similar fashion as those on snow. However, as ice presents the potential danger of immediate access to water, care must be taken to respond quickly to such spills. Should fuel seep or flow through cracks or breaks in the ice, despite all precautions, assistance should be sought immediately.

Construct a compacted-snow berm around the edge of the spill area.

Removal

Although hard ice will retard or prevent fuel entry to the receiving waters below, all contaminated snow and ice, as well as objects embedded in the ice (such as gravel) must be scraped from the ice surface, placed in refuse drums, and disposed of in an appropriate manner.

Remediation

Receive instruction from the appropriate member of the chain of command (Table 6-1) or contact agencies listed in Appendix A.

TABLE 6-3
Guide to Required Ice Thickness

Weight		Ice Thickness Travel	Ice Thickness for Stationary Loads
242,500lb.	(12 1t)	50 inches (127cm)	90 inches (229cm)
154,000lb.	(77t)	40 inches (102cm)	70 inches (178cm)
100,000lb.	(50t)	32 inches (81cm)	60 inches (152cm)
55,000lb.	(28t)	25 inches (64cm)	43 inches (109cm)
22,000lb.	(11t)	15 inches (38cm)	30 inches (76cm)
17,600lb.	(9t)	14 inches (36cm)	24 inches (61cm)
7,700lb.	(4t)	10 inches (25cm)	18 inches (46cm)

Expressed in inches and centimetres.

Weights and ice thickness measures rounded to nearest whole.

Table 6-4 below presents a numerical summary of the Transport Canada (1974) required fresh water ice thickness versus aircraft load from the AK-68-14-001 standard.

Table 6-4

Required Ice Thickness for Typical Aircraft Weights
AK-68-14-001 Transport Canada Standard

Weight			Required Fresh-Water Ice Thickness	
Lb	kg	kN	M	in
10 000	4 545	44.5	0.33	13
30 000	13 640	133.5	0.58	23
67 000	30 400	300.0	0.90	35.5
135 000	61 360	600.0	1.27	50
800 000	364 000	3 570.0	3.20	126

Source: Winter Operations Report 1995/96, Kennecott/Aber, Lac de Gras, by 669107 Alberta Ltd.

5050 Nunavut Limited
McGregor Lake Campsite
Abandonment and Restoration Plan, 2008

Prepared for:

5050 Nunavut Limited /
Adriana Resources Inc.
1818 – 701 West Georgia St.
Vancouver, B.C. V7Y 1C6

Prepared by:

Franz Environmental Inc.
308 – 1080 Mainland St.
Vancouver, B.C. V6B 2T4

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1.0 PROJECT DESCRIPTION

The project description includes an introduction and a discussion regarding the environmental effects of both the campsite and the exploration activities.

1.1 Introduction

5050 Nunavut Limited (5050 Nunavut) was incorporated under the laws of Nunavut and presently holds 100 claims comprising 253,796.89 acres surrounding All Night Lake and McGregor Lake, and on Inuit Owned Lands (IOL). These properties are located between 60 and 100 kilometres south of Kugluktuk, Nunavut and are known as the All Night Lake Property, the McGregor Lake Property, and IOL Property (Figure 1-2). Together the properties comprise the Mackenzie Igneous Event Project (the "MIE Project") targeting Ni, Cu, Pt group element (PGE) mineralization, and the Bear Valley Uranium Project (the "BVU Project") for uranium exploration. The exploration program is at a grass roots stage and is considered to be low impact. It includes regional and detailed geological mapping, prospecting and sampling, airborne and ground based geophysical surveys and drilling.

5050 Nunavut is a wholly owned subsidiary of Adriana Resources Incorporated (Adriana) and has its corporate office at Adriana's office in Vancouver Canada. 5050 Nunavut's corporate office address is:

Adriana Resources Inc.
Suite 1818, 701 West Georgia Street
Vancouver, BC V7Y 1C6

The principals in each company are:
Mike Beley, President and Director of Adriana; and
Gordon Addie, President of 5050 Nunavut.

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 and bulk fuel storage at McGregor Lake to support exploration activities associated with the MIE and Bear Valley Projects. The License is valid until July 15, 2008. This license was issued to establish a new camp at Iceberg Creek along the southwest shore of McGregor Lake.

As an alternative to setting up a new camp, the Kitikmeot Inuit Association (KIA) suggested 5050 Nunavut use an abandoned exploration camp (to be known as the McGregor Lake Campsite) along the north shore of McGregor Lake used historically by other mining companies (Figure 1-1). This alternative location for the camp will support 5050 Nunavut's mineral exploration activities associated with the MIE and Bear Valley Project. Figure 1-2 shows the location of the campsite as well as the proposed drill targets. Figure 1-3 presents the proposed camp layout.

This Abandonment and Restoration Plan is provided as part of the amendment and renewal of KTL306C016 to expand 5050 Nunavut's drilling program to 10,000m on their MIE and Bear Valley properties and the use/expansion of the McGregor Lake Campsite to accommodate 25 – 30 personnel.

This plan is in support of any activities conducted by 5050 Nunavut within the MIE and BVU project areas and shall be in effect when approval is obtained by the appropriate authorizing agencies, and is subject to revisions as may be necessitated by future programs.

1.2 Expected Environmental Impacts of Campsite and Exploration Activities

Little environmental impact is anticipated from the use of the existing McGregor Lake Campsite. The proposed camp area was chosen because it will avoid any additional surface disturbance in the area. To further reduce any possible impact to vegetation, the MIE and BVU exploration programs will run from March to October with seasonal shutdown periods during May and June during ice break-up. The campsite and exploration activities will be shutdown from October to March. During the winter shut-down, the camp will either be winterized or, if warranted, one or two people will remain on site as caretakers and to watch the camp.

2.0 CAMP & EXPLORATION OPERATIONS

The following details maintenance that is completed on a continuing basis throughout the land use operation, seasonal closures, and temporary shutdowns.

2.1 Campsite

The camp will be maintained in a tidy orderly fashion. Upon arriving at the camp, all staff will be trained in camp rules such as the Spill Contingency Plan, camp operations, and how each type of waste is dealt with (incineration, storage until removal is applicable etc.).

In the case of short term temporary shutdown (less than a year), all portable wooden structures (survival shacks, generator shacks, etc.) will be stored in the campsite area and all portable equipment will be stored in the sheds and locked up. The kitchen will be inspected and all food will be removed to decrease the potential for attracting animals. The kitchen, dry and insulated tents will be closed and battened down. All garbage will be incinerated or removed to an approved Municipal discharge in Yellowknife or Kugluktuk.

Tables 2-1 and 2-2 show the building and equipment inventory to be left on site in a temporary closure.

Table 2-1
Campsite Structures to be Left On-Site in a Short Term
Temporary Closure (Less than One Year)

Structure Type	New or Existing Structure	Approximate Dimensions	Number
Core Shack	New	20ft x 30ft	1
Geologist's Office w/ existing core shack	Existing	34ft x 20ft	1
Drill Foreman Office	Existing	14ft x 16ft	1
Kitchen	Existing	30ft x 16ft	1
First Aid	Existing	14ft x 16ft	1
Generator Room	Existing	10ft x 10ft	1
Dry	Existing	34ft x 20ft	1
Sleeper (insulated tent accommodation)	Existing	16ft x 20ft	6
	New	14ft x 16ft	5
Outhouse	Existing	9ft x 9ft	1
Pacto Toilets	New	9ft x 9ft	2

Table 2-2
Campsite Equipment to be Left On-Site in a Short Term
Temporary Closure (Less than One Year)

Equipment Type	Number	Size/Ground Pressure	Use
Caterpillar D6M with Low-ground pressure tracks (LGP)	1	15, 000kg /4.71 psi	Site maintenance & ice airstrip construction
Sled	1	2 ,300kg/ 5cm ground indent	Site maintenance & ice airstrip construction
Bobcat	1		Site maintenance & ice airstrip construction
Snowmobiles	15	Various/minimal	Transportation
Hydracore 2000 diamond drill	2	Maximum depth of 800m with BTW	Drilling

2.2 Fuel Storage

All fuel storage and handling is guided by the procedures set out in the Spill and Contingency Plan for the MIE Project.

Empty drums used during the exploration program will be regularly rotated out of camp by fixed wing aircraft in order to be re-filled and then returned to camp during annual pre-exploration re-supply programs. Any empty drums that are deemed not fit to hold fuel are back hauled to Kugluktuk and/or Yellowknife and disposed of at approved facilities.

2.3 Campsite Sewage Disposal

Pacto toilet systems will be used at the campsite. These toilets require no electricity, water, or sewage system. Instead they make use a flush foil to encapsulate the waste which is then incinerated daily. In the case of temporary shutdown, all encapsulated waste bags will be removed and incinerated prior to shutting down the camp.

2.4 Solid Waste

All camp and kitchen wastes will be incinerated daily in the camp incinerator. Any waste that cannot be incinerated will be stored in barrels and shipped to Kugluktuk and/or Yellowknife for disposal. In the case of temporary shutdown, all waste will either be incinerated or removed.

2.5 Waste Oil

Waste oil volumes from the camp and related activities will be incinerated or used for heating purposes. In the case of temporary shutdown, all waste oil will be incinerated.

2.6 Hazardous Waste

Waste oil volumes from the camp and related activities will be less than 0.04 cubic metres per week. Waste oil will be incinerated or used for heating purposes.

Uranium may be encountered in the drill cores for Bear Valley Project only.

5050 Nunavut currently holds Nunavut Waste Generator # NUG 100022 (attached in the appendices). All such waste will be documented and transported from the Project Area for proper disposal. The same individual in charge of documenting the hazardous wastes will have completed a course in the Transportation of Dangerous Goods specifically designed to train geologists in the safe transport of nuclear substances.

For the long term storage of drill core, radiation levels will be reduced to less than 1.0 μSv measured at 1.0 meter from the surface and in no instance will the level be allowed to exceed 2.5 μSv . In practice, it is anticipated that major uranium intersections will be transported to the Saskatchewan Research Council for testing and storage at their nuclear materials storage facility.

Please refer to the attached Uranium Exploration Plan.

2.7 Drill Holes

All drill sites are cleaned and maintained on a daily basis. Waste materials, garbage and any empty drums or propane cylinders are routinely returned to camp for incineration or removal to Kugluktuk and/or Yellowknife. Upon completion of an individual drill hole the drill rig and supplies are moved to a new site and the drill set up is cleaned of any debris and the area returned, as close as possible, to a pre-disturbed state. In the case of temporary shutdown, all drill sites will be cleaned.

2.8 Drill Cores and Sumps

All drill cores are collected and will be stored within the drill-core area of the camp. Water used during the drilling will be disposed of in natural depressions, at least 100m from the high water mark of any water body.

2.9 Bulky Items/Scrap Metal

Scrap metal in the form of drill rods will be removed to Kugluktuk and/or Yellowknife on a regular schedule to avoid excessive stockpiling.

2.10 Water Intake

The water intake will be located on McGregor Lake using a 'hose & float system' which will suspend the intake pipe on the water surface with the intake located on the float. The intake end of the pipe will be equipped with a screen to avoid fish entrapment. The screen size will be determined following the calculations outlined in DFO's Freshwater Intake End-of-Pipe Fish Screen Guidelines. In the case of temporary shutdown, the water intake pump will be shut off.

2.11 Helicopter Landing Pad

The helicopter landing pad will be regularly inspected to ensure there is no debris around the area. A drip pan and spill kit is located at the landing pad to be used while refuelling the helicopter. In the case of temporary shutdown, all debris will be cleared from around the helicopter pad.

2.12 Generator

The generators will receive regular maintenance. The generator shack will be equipped with a drip pan, spill kit, and absorbent matting should there be a spill of gas while filling the generator. In the case of temporary shutdown, the generators will be turned off, and the shack will be closed and locked.

3.0 FINAL ABANDONMENT AND RESTORATION

The final abandonment and restoration plan provided below includes the time frame, discussion about the camp, discussion regarding fuel storage and refuelling areas, grey water disposal, solid waste disposal, waste oil and hazardous wastes disposal, bulky items. In addition, the section discusses abandonment and restoration at drill sites, the water intake system, the helicopter landing pad and generators.

3.1 Time Frame

The MIE and BVU projects are still in exploration stage therefore it is not feasible at this time to subscribe to a definitive schedule for the conclusion of this land use operation. Once the projects are terminated or campsite relocation becomes necessary, 5050 Nunavut the following procedures will be followed to allow for proper abandonment and restoration of the project area.

3.2 Camp

When the camp is no longer required all structures erected by 5050 Nunavut, temporary buildings, machinery, equipment, materials, fuel drums, storage containers, and any other items used in connection with the camp will either be burned or removed from the site. The disturbed areas will be stabilized and restored as close as possible to a pre-disturbed state. The buildings existing prior to 5050 Nunavut occupying the campsite will remain in place.

3.3 Fuel storage and refuelling areas

Upon closure all fuel drums will be removed and the non-reusable drums will go to the Kugluktuk and/or Yellowknife land fill. The containment system will either be removed or re-contoured, and the area around the secondary containment for fuel storage will be sampled for hydrocarbon contamination. If there is any hydrocarbon contamination resulting from 5050 Nunavut activities the contaminated materials will be removed, the area will be stabilized and restored as close as possible to a pre-disturbed state.

3.4 Greywater Sump

At time of closure all camp sumps will be backfilled, re-contoured, stabilized, and restored as close as possible to a pre-disturbed state.

3.5 Solid Wastes

At the time of closure most wastes will be incinerated. Any waste that cannot be incinerated will be placed in barrels and removed to the Kugluktuk and/or Yellowknife landfill. At time of closure the incinerator will be removed along with any barrels of garbage. The soil under and around the incinerator will be sampled for metals and hydrocarbon contamination. If there are any metals and/or hydrocarbon contamination resulting from 5050 Nunavut activities the contaminated materials will be removed, the area will be stabilized and restored as close as possible to a pre-disturbed state.

3.6 Waste Oil

All waste oil will be incinerated.

3.7 Hazardous Waste

There will be no hazardous materials on the project site

3.8 Drill Sites, Sumps and Cuttings

All drill sites, sumps, and cuttings are dealt with and reclaimed at the completion of a hole. For final restoration all old drill sites, sumps and cuttings will be re-inspected to ensure that all areas have been restored as close as possible to a pre-disturbed state.

3.9 Bulky Items

Scrap metal in the form of drill rods and bulky items will be removed from site. All drilling scrap will be removed from the project site as backhaul on supply flights.

3.10 Water Intake

Upon closure the water intake pipe, float and pump will be removed, and backhauled off the site.

3.11 Helicopter Landing Pad

Upon closure all debris around the helicopter landing area will be removed. As this is a designated refuelling area it will be sampled for hydrocarbon contamination. If there is any hydrocarbon contamination resulting from 5050 Nunavut activities the contaminated materials will be removed. The area will be stabilized and restored as close as possible to a pre-disturbed state.

3.12 Generators

Upon closure the generator shacks will be removed from the site. The area around shack will be sampled for hydrocarbon contamination. If there is any hydrocarbon contamination resulting from 5050 Nunavut activities the contaminated materials will be removed, the area will be stabilized and restored as close as possible to a pre-disturbed state.



PART 1 FORM PROJECT PROPOSAL INFORMATION REQUIREMENTS

For more information about the Nunavut Impact Review Board (NIRB) please visit our web site <http://nirb.nunavut.ca/> or to access NIRB documents, project screenings, and project reviews please visit the Nunavut Impact Review Board ftp site <http://ftp.nunavut.ca/nirb>.

IMPORTANT!

Please be advised that your application will not be processed until the Sections 1 - 9 are completed in their entirety, in both English and Inuktitut (+ Inuinnaqtun, if in the Kitikmeot).

SECTION 1: APPLICANT INFORMATION

1. Project Name 5050 Nunavut Ltd. McGregor Lake Campsite Permit Amendment and Renewal

2. Applicant's full name and mailing address:

5050 Nunavut Ltd. (a subsidiary of Adriana Resources Inc.)

Gordon Addie, President

Suite 1818 – 701 West Georgia St.

Vancouver, BC. V7Y 1C6

Phone: 604-629-0250

Fax: 604-629-0923

Email: _____

3. Primary contact's full name and mailing address:

Same as Above

Phone: _____

Fax: _____

Email: _____

SECTION 2: AUTHORIZATION NEEDED

1. Indicate all authorizations associated with the project proposal:

☒	Regional Inuit Association (RIA)
☒	Nunavut Water Board (NWB)
☐	Nunavut Planning Commission (NPC)
☒	Indian and Northern Affairs Canada (INAC)
☐	Department of Fisheries and Oceans (DFO)
☐	Community Government & Services (CG&S)
☐	Nunavut Research Institute (NRI)
☐	Department of Culture, Language, Elders, and Youth (CLEY)

☐	Canadian Launch Safety (CLS)
☐	Environment Canada (EC)
☐	Government of Nunavut (GN)
☐	Department of National Defense (DND)
☐	Hamlet
☐	Parks Canada (PC)
☐	Canadian Wildlife Service (CWS)
☐	Other (please specify): _____

2. List the active permits, licenses, or other authorizations related to the project proposal, and their expiry date(s):

KIA Land Use License: KTL104C033 (amended July 15th 2006 as KTL306C016)

KIA Land Use License: KTL306C016 (will expire July 15th, 2008)

Nunavut Water Board Water License 2BE-MCG0608



Mineral Claims: GA1- GA45, M1 – M11

IOL parcel numbers: CO52, C053, C060, C061, C062

3. List the pending permits, licenses, or other authorizations related to the project proposal:

Winter trail permit from Kugluktuk to McGregor Lake (NIRB File #07RN072)

4. Has this project or any components of this project been previously screened or reviewed by NIRB?

☒ YES



NO

If YES, indicate the previous project name and NIRB File No.

06EN055 - Project Name : MIE Project

This was a permit application submitted by 5050 Nunavut in 2006 for a proposed campsite on the southwest shore of McGregor Lake

SECTION 3: PROJECT PROPOSAL DESCRIPTION

1. Indicate the type of project proposal (check all that apply)^(1,2):
(See Appendix A for Project Type Definitions)

1	All-Weather Road/Access Trail	☐	9	Site Cleanup/Remediation	☐
2	Winter Road/ Winter Trail	☐	10	Oil and Natural Gas Exploration/Activities	☐
3	Mineral Exploration	☒	11	Marine Based Activities	☐
4	Advanced Mineral Exploration	☐	12	Scientific/International Polar Year Research*	☐
5	Mine Development /Bulk Sampling	☐	13	Harvesting Activities*	☐
6	Pits and quarries	☐	14	Tourism Activities*	☐
7	Offshore Infrastructure (port, break water, dock)	☐	15	Other ⁽²⁾ :	☐
8	Seismic Survey	☐			☐

Please note:

1. All project types listed above, except those marked with an asterisk (*), will also require the Proponent to submit a **Part 2 Project Specific Information Requirement (PSIR) Form**. The NIRB application process will not be considered complete without the Part 2 PSIR Form.
2. Please be advised that in order to complete the NIRB process, the NIRB may request additional information at any time during the process.
3. If "Other" is selected, contact NIRB for direction on whether a Part 2 PSIR Form is required.



2. If Project Type 3, 4 or 5 was selected above, please indicate the mineral of interest that is being extracted. Include a brief description.

Not Applicable

☒	Base Metals (zinc, copper, gold, silver, etc)_ Nickel, Copper
☐	Diamonds
☒	Uranium
☒	Other: sulphides containing Platinum Group Elements (PGE)

3a. If Project Type 13, 14 or 15 was selected above, complete the table and questions below.

Not Applicable

Transportation Type	Quantity	Proposed Use	Length of Use
<i>E.g. Helicopter</i>	<i>1</i>	<i>Site to site pick ups and drop offs</i>	<i>6 days</i>

3b. Describe any docks, piers, air strips or related structures that are to be used in conjunction with the proposed project activities. **Please note:** the building of new structures may require a Part 2 Form.

An ice airstrip approximately 300ft wide by 1km long will be built in February/March adjacent to the campsite. This airstrip will accommodate Hercules cargo aircraft bringing in supplies for the exploration project. In the summer months float planes will bring supplies to the camp, landing in McGregor Lake and using the historic pier currently in place. (Refer to Figure 1-3)

3c. If a temporary camp site is to be established, describe the proposed structures in detail and indicate the type and source of power for the camp site if applicable.

No temporary camps are being built as part of this project. The seasonal McGregor Lake Campsite currently located at the north end of McGregor Lake will act as the primary campsite for the exploration activities. For further details regarding the camp please refer to the NIRB PSIR Part 2 2008 McGregor Lake Campsite Permit Renewal/Amendment Project Specific Information Requirements.

4. Personnel

Total No. of personnel on site = (A)	30	Total No. of days on-site = (B)	240	Total No. of Person days (A) × (B) =	7200
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5. Timing

Period of operation:	from	<u>February</u>	to	<u>October</u>
Proposed term of authorization:	from	<u>July 2008</u>	to	<u>July 2010</u>



6a. Region (check all that apply):

☐ North Baffin	☐ Kivalliq	☒ Kitikmeot	☐ Transboundary: _____
☐ South Baffin	☐ National Park		

6b. Describe the location of the proposed project activities in a regional context, noting the proximity to the nearest communities and any protected areas.

Kugluktuk is the nearest community to the project areas, approximately 100km from the McGregor Lake campsite. The project area is a similar distance to any protected areas.

6c. Discuss the history of the site if it has been used for any project activities in the past.

The campsite has been used historically by other mining companies conducting activities in the area.

6d. Indicate if there are any known archaeological/palaeontological historical sites in the area.

There are no known sites of this type in the project area.

7. Land Status (check all that applies):

☒ Crown	☐ Commissioners'	☐ Municipal
☒ Inuit Owned Surface Lands	☒ Inuit Owned Sub-Surface Lands	

8a. Co-ordinates:

Min Lat (degree/minute)	<u>115/00</u>	Min Long (degree/minute)	<u>66/48</u>
Max Lat (degree/minute)	<u>115/40</u>	Max Long (degree/minute)	<u>67/17</u>

NTS Map Sheet No: 86J/11, 14, 860/3, 4, 6

(Please ensure that maps of the project are attached (1:50,000 **if available**, 1:250, 000 **Mandatory**) available from Natural Resources Canada)

8b. If the project proposal includes a **camp**, please provide the coordinates of the camp location

Min Lat (degree/minute)	<u>115/14</u>	Min Long (degree/minute)	<u>66/54</u>
Max Lat (degree/minute)	_____	Max Long (degree/minute)	_____

If different from above for the camp:

NTS Map Sheet No: _____

Please ensure that maps of the project are attached (1:50,000 **if available**, 1:250, 000 **Mandatory**) available from Natural Resources Canada

Please note that additional location information may be required in a subsequent Project Specific Information Requirement (PSIR) submission. This may take the form of a digital Geographic Information Systems (GIS) file.



SECTION 4: NON-TECHNICAL PROJECT PROPOSAL DESCRIPTION

Please include a non-technical description of the project proposal, no more than 500 words, in English and Inuktitut (+Inuinnaqtun, if in the Kitikmeot). The project description should outline the following:

- The project activities, their necessity and duration;
- Method of transportation;
- Any structures that will be erected (permanent/ temporary);
- Alternatives considered; and
- Long-term developments, the projected outcome of the development for the area and its timeline.

IMPORTANT: IF THE PROPOSED ACTIVITIES REQUIRE SUBMISSION OF A NIRB PART 2 PSIR FORM, PLEASE COMPLETE SECTION 8 ONLY, OTHERWISE CONTINUE ON WITH SECTION 5.

Please refer to the attached 2008 McGregor Lake Campsite Permit Renewal/Amendment Project Specific Information Requirements.

SECTION 5: MATERIAL USE

Please refer to the attached 2008 McGregor Lake Campsite Permit Renewal/Amendment Project Specific Information Requirements for details regarding the Section 5, 6, and 7.

1. List equipment to be used (including drills, pumps, aircraft, vehicles, etc.):

2a. Detail fuel and hazardous material use:

2b. Describe the proposed Spill Prevention Plan.

3a. Detail the anticipated daily water consumption rates

Daily amount (m ³)	Proposed water retrieval methods	Proposed water retrieval location

3b. Have you applied for a water License with the Nunavut Water Board?

☐ YES

☒ NO

If yes, what class of licence?

☐ Class A Water Licence

☐ Class B Water Licence



SECTION 6: WASTE DISPOSAL AND TREATMENT METHODS

1. List the types of waste associated with the proposed project activities:
2. Describe the proposed Waste Management Plan.

SECTION 7: COMMUNITY INVOLVEMENT & REGIONAL BENEFITS

1. List the community representatives that have been contacted and provide the minutes of the meetings if available:

SECTION 8: GENERAL QUESTIONS

1. Will you be disturbing any known archaeological sites?

☐ YES

☒ NO

Please sign and date your application:

Signature

Title

Date



APPENDIX A Project Type Definitions

Access Trail: A project proposal with the objective of providing vehicular access to an area of interest involving minimal alteration to the terrain.

Advanced Exploration: A project proposal with the objective of identifying size, grade, and physical characteristics of a mineral occurrence and to assess the economic and technical feasibility of developing the mineral deposit into a producing mine

All-Weather Road: A project proposal with the objective of road construction for use in all seasons.

Bulk Sampling: A project proposal with the objective of extracting of large samples of mineralized material involving hundreds to thousands of tonnes. Samples are selected as representative of the potential mineral deposit being sampled. May involve crushing/milling (on small-scale)

Harvesting activities: A project proposal with the objective of harvesting animals, marine mammals and/or fish from their natural habitats by means of hunting or trapping for traditional and commercial use.

Marine Based Activities: Any activity occurring in the marine environment, such as vessel use associated with land-based activities or disposal at sea.

*Please note that normal community re-supply or individual ship movements not associated with land-based project proposals shall not be screened by NIRB (Section 12.12.2 of NLCA).

Mine Development: A project proposal with the objective of extracting broken rock with mineralization of sufficient grade and tonnage to sustain commercial mining operations (ore). Mining a body of ore can be achieved by either open pit and/or underground development. Mine development may involve milling. Milling involves treatment of the extracted ore through a combination of mechanical and chemical processes to selectively recover the valuable mineral.

Mineral Exploration: A project proposal with the objective of exploring an area to find geological anomalies. It involves site reconnaissance (ground and/or air) to locate broad and fiscal mineral deposits.

Offshore Infrastructure: A project proposal with the objective of building off loading facilities constructed off the shoreline and connected to the mainland of the marine or freshwater environment. Examples include a jetty, dock, or port facility.

Oil and Gas Exploration/Activities: A project proposal that includes 1) exploration, such as seismic or geological mapping, 2) drilling of oil and gas wells, 3) construction and operation of a pipeline, a gas processing plant or any oil and gas facility within Nunavut.

Pits and Quarries: A project proposal with the objective of pitting, which involves the extraction of granular material (i.e. sands and gravels) and quarrying, which involves the removal of consolidated rock (i.e. bedrock, frozen soil).

Scientific Research: A project proposal with the objective of implementing a series of site activities comprised of observation of phenomena, measurement and collection of data necessary for scientific investigation in designated areas within a limited time period.

Seismic Survey: A project proposal with the objective of conducting a survey to map the depths and contours of rock strata by timing the reflections of sound waves released from the surface. Survey site locations may be offshore (not within 12 nautical miles of any coast), near shore, and extended onshore.

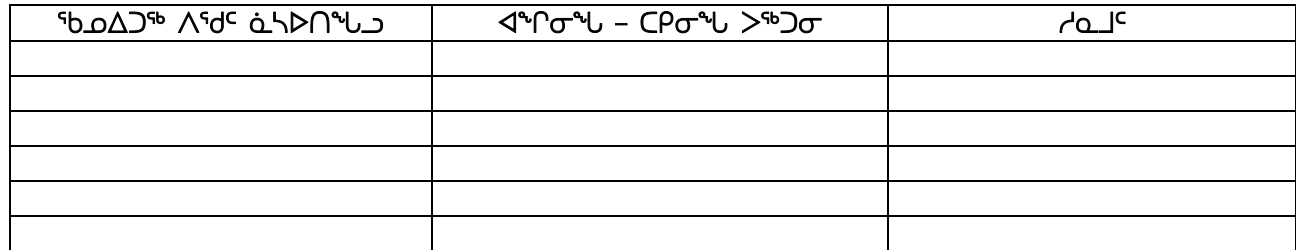
Site Cleanups: A project proposal with the objective of site cleanups (includes DEW line site cleanups), which focuses on the remediation of chemically contaminated soils, stabilization of landfills and dumps, demolition/disposal of infrastructure and debris and monitoring after cleanup is completed.



Tourism Activity: A project proposal with the objective of conducting travel predominantly for recreational, sport or leisure purposes within a designated area and limited time period.

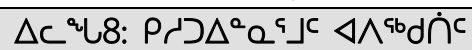
Winter Road: A project proposal with the objective of building a road for winter use by leveling and compacting surface snow and ice. Winter road is removed at end of season.

Winter Trail: A project proposal with the objective of building a trail for winter use by a single pass of a tracked vehicle using a blade, if necessary.

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□ Class A $\Delta \Gamma^{\text{sb}} \mathbb{C}^{\text{c}} \sigma^{\text{c}} \mathbb{J}^{\text{c}} \subset \Delta \mathbb{H}^{\text{a}, \text{h}}$



□ ▲

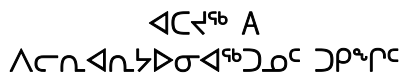
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$\rho' \subset \rho \triangleright \sigma^c$

דגל

[illegible]

Ilaga 1 Titigakhak

HAVAGIYAOMAYUMIK HIVONIKHIYUTIKHANIK PIKAGEAKAKNIGA

Hivonikhivaligomagovin Nonavomi Avatilikiyin Katimayenik (NIGB-kon) takoenagealgin kagitaoyami kongeakhan ovani <http://nigb.nonavot.ca/> tapkoatlunet piyanginik Avatilikiyit titigakotae, havangoyot naonaeyaotae, tapkoatlo havangoyot naonaeyakne takoinagealgit tapkoat Nonavot Avatiligiyit Katimayit ftp kagitaoyakakvea <http://ftp.nonavot.ca/nigb>.

ATOKLOAKTOK!

Kaoyimaneakutin una tukhigaotin havagiyaolimaetok ukoo ilagani 1-min 8-mun inikaktilogin tamaeta Kavlutun Inuktitulo (Inoenaktulo, Kitikmeonetpan).

ILAGA 1: TUKHIGAKTUP KANOGINIGAGUN HIVONIKHIYUTIN

1. b) Havap Atea **5050 Nunavut-kun Havakvik Kalikaklotik Akhalutikun Kugluktumin McGreger lake-mun**
2. **Tokhigaktum tamaeta aten titigakakvikulo tugaktakvea:**
- | | |
|--|---|
| <u>5050 Nunvut-kun Havakvik (ilagiyaan Adriana Resources-kun Timeoyum)</u> | Hivayaota: <u>604-629-0250</u> |
| <u>Gordon Addie, Ikhivaotalik</u> | Kayumiktukun: <u>604-629-0923</u> |
| <u>Suite 1818-701 West Georgia Street</u> | |
| <u>Vancouver, BC, V7Y 1C6</u> | Kagitaoyakun: <u>gaddie@adnanaresources.com</u> |
3. **Okakvigiyaoloaktukham tamaeta aten titigakakvikulo tugaktakvea:**
- | | |
|-----------------------------------|---------------------|
| <u>Ayikutaa havuma kulaanetum</u> | Kayumiktukun: _____ |
| _____ | Hivayaota: _____ |
| _____ | Kagitaoyakun: _____ |

ILAGA 2: AGIGUTAOYAGEAKAKTOK UKUNANGA

1. **Titiklogit tamaeta agigeakaktun tugagayunik havagiyaoyumayumun:**

X	Aviktokhimayuni Inoen Katimayen (RIA-guyun)	Kanatami Aolaktitigeagutinun Aneaknaetukun (CLS-kun)
X	Nunavumi Imalikiyin Katimayin (NWB-kun)	Avatilikiyin Kanatami (EC-kun)
	Nunavumi Paknaeyaeyin Katimayin (NPC-kun)	Kavaman Nunavumi (GN-kun)
X	Kavamatukani Inulikiyin (INAC-kun)	Kavamatukani Aguyaktulikiyin (DND-kun)
	Kavamatukani Imakmeotalikiyin (DFO-kun)	Hamleoyok
	Nunalikni Kavamalikinikun Ikayutiniklo (CG&S-kun)	Mingeokhikvilikiyin Kanatami (PC-kun)
	Nunavumi Iitokhaeyin Havakvean (NRI-kun)	Kanatami Umayulikiyin (CWS-kun)
	Iitkuhilikiyin, Okaohikniklo, Inutkuyalo, Inulgamelo (CLEY-kun)	Ahelo (Okateayavatin):

2. **Titigaklogit atokhimaktun piyunaotit, laesaoyulo, tapkoatlonet ahenik ihumakhutaoyun togagayun havagiyaoyumayumun ihulilvikhaelo:**

KIA-kunin Nunanik Atoknigagun Laeseoyok: KTL104C033 (nutagugeakhimayok July 15^{mi} 2006-mi uvani KTL306C016)

KIA-kunin Nunanik Atoknigagun Laeseoyok: KTL306C016 (atugoekneaktok July 15^{mi} 2008-mi)

Nunavumi Imalikiyin Katimayin Imaknik Atugeagani Laeseoyok 2BE-MCG0608

Oyagaktaahanik Nanminigiyaonigagun: GA1- GA45, M1 – M11
IOL-nik nunan napaen: C052, C053, C060, C061, C062

3. **Titigaklogit nahugiyaoyun piyunaotit, laesaoyulo, tapkoatlonet ahenik ihumakhutaoyun togagayun havagiyaoyumayumun:**

INAC-kunin Nunanik Atoknigagun Piyunaon
Kitikmeonin Nunanik Atoknigagun Piyunaon

4. **Una havak, ilagiyaelunen havam hivoagun ilitokhaktaohimavan ihivgeoktaohimavalunen NIRB-kunin?**



IYA

IMANAK

Agiguvin, okayavan atigiyagaloaga havam NIRB-kunilo titigagiyaeni napa.

06EN055 - Havaam atea : MIE Havaak
Una piyunaonmik tukhiktun tuniyaohimayok 5050 Nunavut-kunin 2006-mi
iglupakakvikageagani hivigaata oalikheani hinaata McGregor Lake-mi.

ILAGA 3: HAVAGIYA OYUMAYUM KANOGITUNIGA

1. **Titiklogo kanogituniga havagiyaoyumayum (titigaklogin tamaeta atoktun)⁽¹⁻²⁾:**
(Takulogo Oegoa A Havam Kanogituniganik Okaoheoyunik)

1	Ukeogalok Apkutaoyok/Aolakveoyok Nunanun	☐	9	Inigiyatik Kiklimaktiklogo / Utiktigeaklogolo Iitkuhigaloaganun	☐
2	Ukeomi Apkutaoyok / Ukeomi Aolakveoyok	☐	10	Okhokyoakheoknik Kasileniklo	☐
3	Oyagakheokvikhakheoknik	☐	11	Takyumi Havaguyun	☐
4	Oyagakheokvikhakheoveokhaktok	X	12	Naonaeyaenik/Hilakyoami Ukeoktaktumi Iitokhaenik*	☐
5	Oyagakheoktun / Agiyunik Naonaeyaeyun	☐	13	Angunahoaknen*	☐
6	Oyagaktaken	☐	14	Polakpaktun hulilugagutikhaen *	☐
7	Takyumi pikutin (tulaktavik, malelgumeovik, tunmigak)	☐	15	Ahea ⁽²⁾ :	☐
8	Nunanik Iitokhaenik Havivalukaknikata	☐			☐

Kaoyimaneakutin:

1. Tamaeta havan titigakhimayun havuma kulanetuni, ukoagugitok titigakaktunik (*)-mik, piyageakakneakok Havakagumayok tunihiyagan **Ilaga 2-mik Havakhamun Hivunikhiyutaoyunik Piyageakaktunik (PSIR-mik) Titigakhamik.** NIRB-kun tukhiknikun aolaniga ihumagiyaolimagitok pikagitpan Ilaga 2 PSIR-mik Titigakhamik.
2. Ilihimateakuhi iniktigeagani taman NIRB-kun aolaniga, NIRB-kun tukhikneagunakhiyun ilageagutikhanik hivunikhiyutikhanik kagugulika aolanigiyamikni.
3. "Ahea" titigakhimakpan, okakatigiyavatin NIRB-kun kanogileoguhikhamik piyavikni Ilaga 2 PSIR-mik Titigakhamik piyageakakmaga.

2. Havam Kanogituniganik 3, 4-lunen 5-lunen titigakhimakpan havuma kulanetuni, okayavan kanogitunik oyagakhakmaga. Naetugaloamik okateayavan hunaokmaga.

Atulimagitok

X	Havivaloen (zinc, kanoyak, Kuli, Kivliktulo, taemaetunik)
	Pinikutikhanik
X	Nuguyoetunik
X	Ahenik: halumaelguvaloen Havivalokaktun (PGE-nik)

3a. Havam Kanogituniganik 13, 14-lunen 15-lunen titigakhimakpan havuma lulanetuni, iniktiyavan naonaepkun apkutaoyulo havuma atanetuni.

Aolagutim Kanogituniga	Kavin	Kanok Atoktaoneakmaga	Hivituniga Atoknigagun
Imatun, Hanikaptak	Ataohik	Nunanin nunanun akyaktoelotik	Siksini upluni

3b. Okateaklogin tulaktakven, tunmikalo, milvelo atoktulo pikutin havagiyaoyumayumi. Kaoyimaneakutin: napaktigiyanigani nutanik pikutinik atugeakakneagunakhiyutin Ilaga 2-mik Titigakhamik.

Hikumi milvik 3-hanat vetmik hiliknikaktok atoahikmiklo kilamitamik takinikaktok hanayaoneaktok February-mi March-milunen haneani iglukpakakveom. Milvik atoktaoneaktok Agiyukyoanin Tikmiyanin akyageagani ihoakutikhaenik nalvakheokvikmi. Aoyami kayalgin tikmiyan akyakneaktun ihoakutinik iglukpakakvikmun, mitpaklotik McGregor Lake-mun atoklogolo taemani uheyakveoyok taya inikhimayoklo talvani. (Takulogo Naonaepktun 1-3)

3c. Hiniktakveokavuktukhamik pineaknikata, okayavatin hunaokmaga napayukhan kanogituniginiklo kanoklo alguyaktutikakneakmaga iglukpakakvikhami atugeakaknikan.

Atukavuktukhanik iglukpakhanik atulimagitun umani havaami. Ukeom ilagani McGregor Lake-mi Iglukpakakvik taya tunuhikheani McGregor Lake-mi iglukpakakveoloakneakok nalvakheokhimaktilogin. Naonaeyaeyumaguvin iglukpakakvikhanik takuyavan NIRB-kun PSIR-giya Ilagani 2 2008-metok McGregor Lake-mi Iglukpakakvikhamik Piyunaonmi Nutaguktigutini Havaamik Hivunikhiyutinik Piyageakaktunik itumi.

4. Havakteoyun				
Tamaeta kaveonigin havaktun havakvikmi = (A)	30	Tamaeta uplun havakviknetun = B	240	Tamaeta uplun inukakneaknigagun (A) × (B) = 7200

5. Kakongukan Pigeagutikhan			
Kanok havakveoneakmaga:	February-min 2008-mi	talvonga	October-mun 2008-mi
Atugumayanik hivitunikhata piyunaotim:	July-min 2008-mi	talvonga	July-mun 2010-mi

6a. Nonalet Aviktokhimanea (titiklogit tamaeta atokniilgit):			
☐ Tununga Kigiktalok	☐ Kivalik	☒ Kitikmeot	☐ Nonani ataohenaogitumi:
☐ Hivuga Kigiktalok	☐ Mingoekhikvik	☐	

6b. Okaklogin humenigin havagiyaoyumayun nunan aviktokniga atoklogo, okaklogolo kanitoanenikhak nunagiyaoyok monagiyaoyulo pikaknikan nunanik.

Kugluktuk kaninikhak havakveoyumin, 1-hanat kilamitam haneani ugahiktigiyok McGregor Lake-min iglukpakakvikmin. Havaak ayikutanik ugahiktigiyok kitunilikaa monagiyaoyunin nunanin.

6c. Okaohigilogo atokhimanikata nunaoyun hulilugaktunin taemani.

Iglukpakakvik taemani atoktoahimayugaloak aalanin oyagakheoktinin hulilugaktunik nunani tahapkunani.

6d. Okayavan igilgaan inituklikakhimanikata nunaoyuni haneani.

Pikagitok kaoyimayaoyunik initukliknik Kalikaktun Akhalutin aolakvikhaani.

7. Kiya Nunagikmaga (titiklogit tamaeta atoknilgit):

☒ Koen	☐ Kamisinaop	☐ Hamleoyun
☒ Inoenat Nanminea Nunaplo Kaginaenetun	☒ Inoenat Nanminea Nunaplo Iloanetun	

8a. Humeniga Nunam:

Mikinikha Nunaoyami Hanimon (nahaotaen)	<u>115/00</u>	Mikinikha Nunaoyuami Tokimon (nahaotaen)	<u>66/48</u>
Anginikha Nunaoyami Hanimon (nahaotaen)	<u>115/40</u>	Anginikha Nunaoyami Tokimon (nahaotaen)	<u>67/17</u>

NTS Nunaoyami Ilagata Napa: 86J/11, 14, 860/3, 4, 6
Ilaoyavun nunaoyan humeniginik havan pikaktunik (1:50,000 **pikakat**, 1:250, 000 **Piyakakpeaktok**) piyaolat talvaga Nunameotalikiyinin Kanatami.

8b. Havakun **hiniktakvikakneaknikata**, titigatyavot nahaotaen hiniktakveoyun.

Ukoa humenmagaa nahaotin McGregor Lake-mi Iglukpakakvik, Una tugaakvikhaan Kalikaktun Akhalutin. Kalikaktuni Akhalutini havaktun hanikaptakun akyaktaoneaktun iglukpakakvikmun unugaekpan utiklotiklo Kalikaktunun Akhalutinun akagugugaekpan.

Hanimon (nahaotaen)	<u>115/14</u>	Tokimon (nahaotaen)	<u>66/54</u>
Hanimon (nahaotaen)	<u> </u>	Tokimon (nahaotaen)	<u> </u>

Alagakpata huvuma kulanetunin hiniktakveoyok:
NTS Nunaoyami Ilagata Napa: Atulimagitok
Ilaoyavun nunaoyan humeniginik havan pikaktunik (1:50,000 **pikakat**, 1:250, 000 **Piyakakpeaktok**) piyaolat talvaga Nunameotalikiyinin Kanatami.

Nunavumi Avatilikiyin Katimayin piyumaneagunakhiyun hivunikhivaligutikhanik humeniganik ilagani Havam Kanoginigagun Hivunikhiyutikhani (PSIR-guyok). Imaetuneagunakhiyok Nunan Kanoginigagun Nunaoyani Naonaepkutini (GIS-guyun

ILAGA 4: TUKIHEANAKTUNIK HAVAGIYA OYUMAYUMIK OKAOHEOYUN

Ilaopkayavan tukiheanaktok kanogitunikha havam, avatkutaelilogo 500 taegohet, Kavlunatat Inuktitoto (Inoenaktolo, Kitikmeonetpata). Havam kanoginiga ilakaktukhaogaloak ukuniga:

- Havami havagiyaoyukhan, piyakakne hivitonikhalo;
- Kanoktut aolagutikakneakmaga
- Kitulikak napaktakhat hanayaoneat (ilihimaenaktokhat / atokaphoktakhat);
- Aheagugutikhat ihumagiyaoyun; unalo
- Hivunikhami havakhan, kanoklo kigoagun kanogiliyutikha nunani hunaolikalo pivikhakknigagun.

ATUGEALIK: HAVAGIYA OYUMAYUMI HULILUGAGUTIN TUNIHUYUTIKAGEAKAKNIKATA NIRB-KUN ILAGA 2 PSIR-MIK
TITIGAKHAMIK, INIKTIYAVAN ILAGANI 8-METUN TALVATOAK, TAEMAEGITPAN INIKTIKHIMAYAVAN ILAGANI 5-METUN.

Takuyavan ilaoyok 2008-mi McGregor Lake-mi Iglukpakakvikhamik Piyunaon Nutaguktigeagani Havaami Hivunikhiyutikhan Atugeakaktun.

ILAGA 5: IHOAKUTIVALOEN ATOKTAOYUKHAN

Takuyavan ilaoyok 2008-mi McGregor Lake-mi Iglukpakakvikhamik Piyunaon Nutaguktiknigagun Hivunikhiyutikhan Atugeakaktun naonaeyaeyumaguvin Ilaginik 5, 6, 7-lo.

1. Titiklogit Pikutin (ikutavaloelo, papaotilo, tikmiyan, akhalutivaloelo taemaetun).:

Pikun hunaokmaga napalo	Agitilaga - uktaotitigulo	Kanok atoktaoneakmaga

2a. Oniktoteaknea okhokhat hivoganaktulo honat atoktaone:

Okhokhat	Kaveone Puguyut, Agitilagilo	Ataotimun Okhokhat (Litres-guyuni)	Kanok Tutkumayaoneakmaga
• Okhokyoak			
• Kasilek			
• Tikmiyutin okhokhae			
• Puplakhat			
• Ahenik			
Hivuganaktot Pikutin Kuviyaktulo		Ataotimun Hivuganaktun Kuviyaktulo (litaoyuni)	

2b. Okaohigiyavatin Kuvegitagani Paknaeyaotin.

3a. Oniktokteaknea uplotoagagan imaknik atoknigin kanogalok:

Uplutoagagan (m ³ -guyuni)	Atugumayaen imavaloen utiktitagani kanok	Atuligumayaen imavaloen utiktitagani humi

4. Tukhikhimavin Napagiya A-mik Laeseoyumik Nunavumi Imalikiyinin Katimayinin?

☐

IYA

☒

IMANAK

Agiguvin, hunaova napagiya laeseoyum?

☐

Napagiya A Imaknik Atugeagani Laeseoyok

☐

Napagiya B Imaknik Atugeagani Laeseoyok

ILAGA 6: IKAGUKNIKUN IMAVALOELO HALUMAGANIGEAGANI HAVAN

1. Titigaklogin kanogitunigin ikaguvaloen:

Kanogituniga ikaguyum	Nalaonealogin kanogalok ikagukakneakmaga	Kanok ikaguneakmaga	Halumaktiganigutikhan piyutin
Anagun (Inoen anagoen)			
Oakhitin			
Ikulalaktun ikaguvaloen			
Ikulalimagitun ikaguvaloen			
Atakoen (halumaektun nunan, ikaguvaloelo, ataguvaloelo oyakikivikmin)			
Hivuganaktun ikaguvaloen			
Ahelo			

2. Okaohigiyavan Ikaguvaloknik Paknaeyaotin.

ILAGA 7: NUNALEN ILAOYUN, AVIKTOKHIMAYUNETUNULO IKAYUHEAGUYUN

1. Titigaklogit nunaliknin kivgaktokte okakatigiyaohimayun, tunilogilo titigakniginik katimayutinun kahaknikata:

Nunaoyok	Atea	Timeoyok	Uploani okakatigiyaokmata

ILAGA 8: HUNALIKA APIKUTIKHAN

1. Kahaknikneakihi kaoyimayaoyunik igilgan inituklenik?

☐

IYA

☒

IMANAK

Saeniyavan uploaniklo titigaklogo tukhiktutin:

Tukhigaktok:

Saeneota:

Havanga:

Uploa:

OEGUYOK A
Havami Kanogituniginik Tukitagutin

Tikitagani Ineoyun Nunami: Havagiyaoyumayumi ihumagiyakaknikata akhalutikun tikitagani ihumagiyaoyumun aktoknikakpalalimiginikan manikanik.

Nalvakheokveokhaktok: Havagiyaoyumayumi naonaeyaeneakata agitilaginik, peoteaknigilo, kanogitunigilo oyagaktakhan naonaeyageaganilo manileogutaoteakneakmaga havatigulo namateakneakmaga oyagaktakveolikinikan.

Ukeogalok Apkutaoyok: Havagiyaoyumayumi apkutuleogumakpata atoktaoyukhamik ukeogalok.

Uyagaktakhanik Naonaeyaenik: Havagiyaoyumayumi ahivaeneakgumik agiyunik havivalokaktunik oyakanik ukumaeyoaktunik pineaknikata. Naonaeyaevaktun oyagaktakveoyukhamin naonaeyaktaoyumin. Hikuptigilaktun oyakikivikmi (mikaogaloamik).

Angunahoaknik: Havagiyaoyumayumi agunahoakneakata umayunik, takyumeotaniklo huganik ikalokniklunen nunaginaeyin agunahoaklogin nanigeaktoklogilunen nanminik atoktakhamiknik neovgutigiyakhamikniklunen.

Takyumi Hulilugagutin: Hulilugagutin takyumi avataoyumi, umiyanik atoknikata nunami havamikni ikagumiklunen takyumun.

*Kaoyimaneakutin nunaliknun umiyan tikitpaktun akyaktun pikutinik ilaoginman nunami havagiyaoyumayunun ilitokhaktaolimagitun NIRB-kunin (Ilagani 12.12.2-mi NLCA-mi).

Oyagaktakvikhamik Pivaleanik: Havagiyaoyumayumi ahivaeneakata hikuptikhimayunik oyakanik havivalukaktunik ukumaeyoaktuniklo manileogutaotealakan oyagakheokveoligumi (oyagaktak). Oyagaktageagani oyagaktanik anmukpalealotik nunam kaganin iloanugakpalealotiklunen nunamun. Oyagaktanik oyakikivikalaktok. Oyakikinik ahivakpaleayagani atoklogin pikutin kuviyaktulo piyutin atoktaolaktun ugavageagani akituyok oyagaktakhak.

Oyagaktakvikhakheoknik: Havagiyaoyumayumi kinikheaneakata oyagaktakveoneaktunik nunanik. Nunanik ihivgeoknik (nunakun tikmeakulunen) nanihiyagani agiyunik takunaktuniklo oyagaktakhanik.

Takyumi Pikutin: Havagiyaoyumayumi hananeakata uheyakvikhanik pikutinik hinanin takyumi atanikata nunaloamun takyumin imavaloknilunen avataoyumin. Ayikutaen ukoa tulaktakvik, tunmigaklo, umiyanilune atoktaoyunik.

Ohokyoanik Kasileniklo Nalvakheoknik/Hulilugagutilo: Havagiyaoyumayumi ilakaktumik 1) nalvakheoknikmik, ima kukulaktunoen atoklogin nunaoyatigulunen, 2) ikutakan okhokyoaktakvikhanik kasileniklo, 3) hanakpan atukalo tukhoakyoanik, kasileniklo hanakivikmik okhokyoakakvelunen kasilekakvelunen Nunavumi.

Heogaktakveoyun: Havagiyaoyumayumi heogaktakneagumik, ahivaeneakata heogavaloknik (imaetun, heokan oyagalealo) oyagaktakatalo, ahivaeneakata ataotimetunik oyakanik (imaetun, kaektunik, kikumayuniklo nunanik).

Naonaktunik Naonaeyaenik: Havagiyaoyumayumi atuligeagani iglukakveoyumi hulilugagutinin taotuklogin akliknaktun, naonaeyaklogilo katitigeaklogilo naonaepkutikhan piyageakaktun naonaktunik ilitokhaenikun tikoaktaohimayuni nunani pivikhakaklaktilogilo.

Kokulaktunoanun Naonaeyaenik: Havagiyaoyumayumi naonaeyaeneakata nunaoyeogeagani hiliktilagin unugagalok oyakan nalgulogin kanok kokuktunoak utikniga naonaegutaoneakman hiliktilaganik nunam kaganin. Naonaeyaeven takyumelaktun (iloanelimagitun 12-nik maelinik ugahiktilaganik hinanin imam), hinatalo kanitoanilo, unanilaloklo takyumi.

Inigiyaoyun Kiklimaktiknigin: Havagiyaoyumayumi inigiyaoyun kiklimaktikneakata (ukoalo Tulaekakven kiklimaktiktaonigin), ihumagiloakhugin utiktitagani ilitkuheanun kuviyaktuvaloknin halumaekhimayun nunavaloen, aolalimaeeaganilo haohimayun kuvelo, agiptikniginiklo / ikaklogilo napayun pikutin ikaguvaluelo amigilogilo kanogilivaleanigagun kigoagun kiklimaktiktaotakan.

Polaktulikiyutin Havan: Havagiyaoyumayumi aolaktitiyagani tugagaloaktunik tunikgoektigiyutinun, ulapkiyutinulo neamgiyaginageaganilunen tikoaktaohimayumi nunami pivikhakaktilogilo hivitunigagun

Ukeoginakmi Apkun: Havagiyaoyumayumi apkutileokneakata ukeomi atoktukhamik atagikhaklogin kikhoktiklogilo kaginaen aputin hikulo. Ukeomi apkutoayok ahivaktaoneakok kikumanaekan ukeom ilagani.

Ukeoginakmi Inin: Havagiyaoyumayumi hananeakata inimik ukeomi atoktukhamik ataotimin tulakaktumin akhalunmin atoklotik poalgiaonmik, piyageakaknikan.

2008 McGregor Lake Campsite
NIRB PISR 2

Prepared for:

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1- 2 Exploration Area

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1.0 PROJECT DESCRIPTION

GENERAL

This section includes basic information about the location of the project, contact information, acts, regulations and guidelines that apply and the permits and licenses that are required for the proposed activities.

1.0 Name and Location of Proposed Project

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 and bulk fuel storage at McGregor Lake. The purpose of the camp is to support exploration activities associated with their Mackenzie Igneous Event (MIE) and Bear Valley Uranium exploration projects in the area. The KIA Land Use License is valid until July 15, 2008. This document is in support of the Amendment and Renewal of KTL306C016.

2.0 Contact Information for Proponent(s) and Other Project Contacts

5050 Nunavut Limited (subsidiary of Adriana Resources Inc.)

Gordon Addie, President (5050 Nunavut)
Suite 1818 – 701 West Georgia Street
Vancouver, BC
Canada V7Y 1C6
Phone: 604 629 0250 Fax: 604 629 0923

Franz Environmental Inc. (Environmental consultant)

308 – 1080 Mainland St.
Vancouver, B.C. Canada V6B 2T4
Attn: Carlos da Ponte
Phone: 604 632 9941 Fax: 604 632 9941

Diamond Drilling: Major Drilling – Winnipeg, MB – Tel 204-885-7532 –
winnepeg@majordrilling.com

Fixed wing aircraft will be contracted from any of the following (depending on which contractor is available):

Air Tindi – Yellowknife NT, (888) 545-6794 **Adlair**

Aviation – Yellowknife NT, (867) 873-5161 **Air**

Thelon – Yellowknife NT, (867) 920-7110 **Arctic**

Air – Yellowknife NT, (867) 873-1210

Arctic Sunwest Charters – Yellowknife NT, (867) 873-4464

Buffalo Airways – Yellowknife NT, (867) 873-6112

3.0 Acts, regulations and guidelines

The following list is a list of acts, regulations and guidelines (both federal and territorial) that apply to the activities at the McGregor Lake Campsite.

- Article 13 – Nunavut Land Claims Agreement
- NWB – Water Licensing in Nunavut – Interim Procedures and Information Guide for Applicants
- NWB – Interim Rules of Practice and Procedure for Public Hearings
- NWTWB – Guidelines for the Discharge of Treated Municipal Wastewater in the NWT
- NWTWB – Guidelines for Contingency Planning
- DFO – Freshwater Intake End of Pipe Fish Screen Guideline
- Fisheries Act – s.35
- RWED – Environment Protection- Spill Contingency Regulations
- Canadian Drinking Water Quality Guidelines
- Public Health Act Camp Sanitation Regulations
- Public Health Act Water Supply Regulations
- Territorial Land Use Act and Regulations

4.0 Permits and Licenses

The following list is a list of the permits and licenses that are required (and in place) for the McGregor Lake Campsite.

- KIA Land Use License: KTL104C033 (amended July 15th 2006 as KTL306C016)
- KIA Land Use License: KTL306C016 (will expire July 15th, 2008)
- Nunavut Water Board Water License 2BE-MCG0608
- Mineral Claims: GA1- GA45, M1 – M11
- IOL parcel numbers: C052, C053, C060, C061, C062

A permit application for a one-way, single use winter trail from Kugluktuk to the McGregor Lake Campsite has been submitted to INAC, KIA, and NIRB for approval.

PROJECT INFORMATION

General project information includes information regarding the history of the site, figures for the project location and the camp infrastructure, the mineral resources under exploration, the purpose of the project, alternatives to the project and the type of exploration activity.

5.0 History of the Site

The Muskox Intrusion was first discovered in 1956 by INCO. They spent three years exploring and drilling for nickel-copper mineralization. Numerous companies examined the intrusion between 1969 to present, but no significant deposits were outlined. Studies undertaken on the area include:

- Geophysical and geochemical surveys and geological mapping of the Marginal Series near McGregor Lake;
- Property-wide geophysical including: VLF, magnetics, gravity, UTEM, and HLEM;
- Controlled Source Audiomagnetotelluric; and
- Numerous, highly anomalous grab samples were collected from the Pyrrhotite Lake.
- An inspector from NWB visited the McGregor Lake Campsite on Aug 11, 2007, collected water samples, results not available.
- A Phase I/II Environmental Site Assessment of the existing McGregor Lake Campsite was conducted in 2004 by Golder and Associates on behalf of INAC. This report provides an inventory of the historical activities conducted at the camp.

6.0 Project Location Map

Please refer to Figure 1-1, 1-2, and 1-3 for an outline of the intended project area and camp layout.

7.0 Project Infrastructure Map

Please refer to Figure 1-1, 1-2, and 1-3 for an outline of the intended project area and camp layout.

8.0 Mineral Resource Under Exploration

The minerals under exploration include Copper, Nickel, Platinum, Palladium, and Uranium.

9.0 Project Need and Purpose

A campsite is required at McGregor Lake to support the staking, prospecting, and exploration work of KIA Land Use License KTL306C016, as well as the drilling program currently being applied for. 5050 Nunavut is requesting an amendment and renewal of KTL306C016 to conduct an expanded drilling program on their MIE and Bear Valley property and intends to use the existing McGregor Lake Campsite to support these activities.

5050 Nunavut considers the base of the Muskox Intrusion and adjoining basement and sedimentary rocks to represent a corridor of opportunity for accumulations of Uranium and sulphides containing Copper, Nickel, Platinum and Palladium. The MIE and BVU project has been designed to effectively explore the area for economically viable mineral deposits within the 5050 Nunavut mineral claims.

10.0 Alternatives to the Project and Alternatives to Project Components

KIA License KTL306C016 was originally proposed to establish a new camp at Iceberg Creek along the southwest shore of McGregor Lake, however, as an alternative to setting up a new camp, the KIA suggested 5050 Nunavut use an abandoned exploration camp (now known as the McGregor Lake Campsite) along the north shore of McGregor Lake. This alternative location was used historically by other mining companies (Figure 1-1 & 1-2).

11.0 Type of Exploration Activity

The exploration activity includes: airborne geophysics surveys, ground geophysical surveys, and prospecting covered under KIA Land Use License KTL104C033, as well as exploration drilling (10000m).

12.0 Project Activities

The following activities are to be conducted as part of the 5050 Nunavut's exploration program. These activities include:

- Camp use and construction,
- Staking and prospecting,
- 10,000m exploratory drilling program,
- Transportation,
- Water use,
- Fuel transport and storage,
- Geophysical Survey,
- Storage of Products, Chemicals and Hazardous Materials, and
- Production of associated waster.

A detailed description of these activities is provided in the following sections.

13.0 Department of Fisheries and Oceans

These activities do not apply to the proposal.

14.0 DFO Permits

N/A

15.0 Schedule for DFO Permits

N/A

GEOPHYSICAL

Two forms of geophysical investigation will be completed: ground geophysical coverage and airborne geophysics. Each method is discussed below.

16.0 Ground Geophysical Coverage

Please refer to the Figure 1-2. This figure outlines the project area. Ground geophysical work will occur within the boundary of 5050 Nunavut mineral claims and some IOL.

17.0 Airborne Geophysical Coverage

Flights within the boundaries of the MIE project area will be at altitudes below 300m for the purpose of conducting airborne geophysical surveys. 5050 Nunavut will inform the helicopter pilots of the general locations of the muskox herds and will either bypass them or increase altitude to minimize the noise level on the ground.

DRILLING

The drilling program will include approximately 40 boreholes for a total of 10,000m of drilling. See Figure 1-2 for approximate borehole locations. For further details regarding the proposed Uranium, please refer to the attached Uranium Exploration Plan (2007) submitted to the Nunavut Water Board in May 2007 by 5050 Nunavut Ltd. / Adriana Resources Inc.

18.0 Mobilization of Drill Equipment

The initial mobilization of the drilling equipment to the project area will be by fixed wing aircraft. Mobilization within the project area will be by helicopter.

19.0 Drill Additives

With the presence of permafrost the addition of calcium chloride (salt) in preheated water may be required to keep the holes from freezing, preventing the loss of drill rods. The additives are only added when problems are noted in the water circulation. The additives are either Poly Drill OBX or Poly Drill133X/1330 or other similar substances which are non-toxic and biodegradable.

20.0 Drill Cores and Cuttings

All drill cores are collected and will be stored within the drill-core area of the camp. Water used during the drilling will be disposed of in natural depressions, 30m – 100m from the high water mark of any water body. All drill cuttings will be retained in a natural depression, 30m to 100m from the high water mark of any water body.

21.0 Drill Water

If drill water is of a poor quality (as according to regulations) it will be disposed of in a properly constructed sump, or an appropriate natural depression located at least 30m to 100m above the high water mark of water bodies.

22.0 Mobilization of drill equipment

The initial mobilization of the drilling equipment to the project will be by fixed wing aircraft. Mobilization within the project area will be by helicopter. The number of sling loads is dependant upon the depth of the hole but would approximately be in the range of 22 to 25. The timber platforms are built in advance of the drill moves. There would be approximately 5 sling loads of timbers.

23.0 Abandonment of Drill Holes

All drill sites are cleaned and maintained on a daily basis. Waste materials, garbage and any empty drums or propane cylinders are routinely returned to camp for incineration or removal to Kugluktuk and/or Yellowknife. Upon completion of an individual drill hole the drill rig and supplies are moved to a new site and the drill set up is cleaned of any debris and the area returned, as close as possible, to a pre-disturbed state. For final restoration all old drill sites, sumps and cuttings will be re-inspected to ensure that all areas have been restored as close as possible to a pre-disturbed state.

24.0 Radiation Protection Measures

The uranium exploration program will be conducted under the same guidelines used by Hornby Bay Exploration Limited (HBE) for their uranium exploration project. In the chance of encountering Uranium in the drill cores, a Waste Generator Number has been obtained to document hazardous waste that may occasionally be transported from the Project Area for proper

disposal. The same individual in charge of documenting the hazardous wastes will have completed a course in the Transportation of Dangerous Goods specifically designed to train geologists in the safe transport of nuclear substances.

For the long term storage of drill core, radiation levels will be reduced to less than 1.0 μSv measured at 1.0 meter from the surface and in no instance will the level be allowed to exceed 2.5 μSv . In practice, it is anticipated that major uranium intersections will be transported to the Saskatchewan Research Council for testing and storage at their nuclear materials storage facility.

TRANSPORT

Transportation is discussed in two sections; transport to the project site and the airstrip.

25.0 Transport to Project Site

Material and personnel will be transported to the Campsite by fixed wing aircraft from either Yellowknife or Kugluktuk. The planes are normally Twin Otters and will land on McGregor Lake. On property transportation will be by helicopter. Snowmobiles are used while the tundra is frozen for local transport of goods in the area of the camp and for safety. The proposed winter trail will bring a D6M Caterpillar, a Bobcat, sled, two snowmobiles, and 3 man crew from Kugluktuk to the McGregor Lake Campsite. This equipment would be used at the Campsite to assist in site preparation and the construction of the ice airstrip.

26.0 Airstrip

5050 Nunavut would like to construct an ice airstrip immediately west of the McGregor Lake Campsite for use during the winter months. The exact location will depend on local ice conditions at the time. The airstrip will be approximately 1 mile long by 300ft wide (approximately 14.5 hectares). In the summer months no airstrip will be used as the float planes will make use of the lake for flight activities.

CAMP SITE

The following sections describe the campsite in further detail.

27.0 Camp Structures and Infrastructure

5050 Nunavut proposes to utilize the existing camp located on the north shore of McGregor Lake 100m from the high water mark. Figure 1-3 outlines the existing structures and those structures that will be added to expand the camp capacity. One existing building is located within the lake's high water mark. This building will not be used. The following table summarizes the buildings that currently exist on site and the buildings 5050 Nunavut intends to place at the campsite (new). The camp will be heated with oil stoves.

Structure Type	New or Existing Structure	Approximate Dimensions	Number
Core Shack	New	20ft x 30ft	1
Geologist's Office w/ existing core shack	Existing	34ft x 20ft	1
Drill Foreman Office	Existing	14ft x 16ft	1
Kitchen	Existing	30ft x 16ft	1
First Aid	Existing	14ft x 16ft	1

Structure Type	New or Existing Structure	Approximate Dimensions	Number
Generator Room	Existing	10ft x 10ft	1
Dry	Existing	34ft x 20ft	1
Sleeper (insulated tent accommodation)	Existing	16ft x 20ft	6
	New	14ft x 16ft	5
Outhouse	Existing	9ft x 9ft	1
Pacto Toilets	New	9ft x 9ft	2

28.0 Type of Camp

It will be a seasonal camp consisting of tent and plywood structures. Procedures to be followed during temporary closure of the camp and final abandonment are described in the McGregor Lake Campsite Abandonment and Restoration Plan, 2008 (attached).

29.0 Maximum number of people on site

The maximum people on camp would be 30. The number of people staying at the camp will vary throughout the operating period from 1 – 30 people. The campsite and exploration activities will be shutdown from October to March. During the winter shut-down, the camp will either be winterized or, if warranted, one or two people will remain on site as caretakers and to watch the camp.

30.0 Camp power source

The power source would be from onsite diesel-powered generators.

EQUIPMENT

31.0 List of Equipment

The following table is a summary of the equipment that will be on site.

Equipment Type	Number	Size/Ground Pressure	Use
Caterpillar D6M with Low-ground pressure tracks (LGP)	1	15,000kg /4.71 psi	Site maintenance & ice airstrip construction
Sled	1	2,300kg/ 5cm ground indent	Site maintenance & ice airstrip construction
Bobcat	1	Negligible	Site maintenance & ice airstrip construction
Snowmobiles	15	Various/minimal	Transportation
Hydracore 2000 diamond drill	2	Maximum depth of 800m with BTW	Drilling
Helicopter (AStar B2)	1	-	Pick and drop of crew and equipment (support)

32.0 Digital photos of equipment

Photos of the project equipment are not available at this time but can be provided at a later date upon request.

33.0 Method of moving equipment within the project site

Equipment will be transported to the Project by Cat Train (as proposed in 5050 Nunavut's 2008 Winter Trail Permit Application Package, NIRB file number 07RN072) and by fixed wing aircraft from either Yellowknife or Kugluktuk. The planes are normally Twin Otters and would land on McGregor Lake. On property transportation is by helicopter. Snowmobiles are used while the tundra is frozen. The proposed winter trail would bring a D6M Caterpillar, a Bobcat, sled, two snowmobiles, and 3-man crew from Kugluktuk to the McGregor Lake Campsite. This equipment will be used at the Campsite to assist in site preparation and the construction of the ice airstrip.

WATER

34.0 Location of water source(s) and water intake

Water for the camp will be pumped from McGregor Lake using a hose & float system.

35.0 The estimated rate of water consumption (L/d)

Assuming occupancy of 30 people; approximately 3000 L/d would be consumed.

36.0 Water intakes

The water intake will be suspended from a float located on the lake. During periods of freeze-up, the water will be pumped from a hole drilled on the northern section of McGregor Lake. The intake end of the pipe for both pumping scenarios will be equipped with a screen to avoid fish entrapment. The screen size will be determined following the calculations outlined in DFO's *Freshwater Intake End-of-Pipe Fish Screen Guidelines*.

WASTE (GREY WATER, SEWAGE, OTHER)

Wastes generated at the site are anticipated to include human sewage, grey water, combustible solid wastes, non-combustible solid wastes, waste oil and hazardous wastes and empty barrels and fuel drums. Each waste stream is addressed separately below.

37.0 Waste quantities, treatment, storage, transport, and disposal methods

SEWAGE

All sewage will be collected with the waterless Pacto toilet system. The resultant encapsulated waste will be burned in the incinerator.

GREY WATER

All camp discharge water; estimated for 15 people at 3.0 cubic metres per day of wash water, shower water and kitchen water, will be biologically treated in a sump. The Sump will be located 100m from the high water mark (please refer to Figure 1-3). The sump is self-draining, with all waste water passing through a gravel filter.

COMBUSTIBLE SOLID WASTE

Volumes of solid waste will vary with the daily population of the camp and project activities. All combustible solid waste will be burned daily in an incinerator.

NON-COMBUSTIBLE SOLID WASTE

The non-combustible solid waste will be packaged up and flown out to Kugluktuk and/or Yellowknife on the return flight that brought in supplies.

BULKY ITEMS/ SCRAP METAL

Same as above.

WASTE OIL & HAZARDOUS WASTE

Waste oil volumes from the camp and related activities will be less than 0.04 cubic metres per week. Waste oil will be incinerated or used for heating purposes. Uranium may also be encountered in the drill cores.

5050 Nunavut currently holds Nunavut Waste Generator # NUG 100022 (attached in the appendices). All such waste will be documented and transported from the Project area for proper disposal. The same individual in charge of documenting the hazardous wastes will have completed a course in the Transportation of Dangerous Goods specifically designed to train geologists in the safe transport of nuclear substances.

For the long term storage of drill core, radiation levels will be reduced to less than 1.0 μSv measured at 1.0 meter from the surface and in no instance will the level be allowed to exceed 2.5 μSv . In practice, it is anticipated that major uranium intersections will be transported to the Saskatchewan Research Council for testing and storage at their nuclear materials storage facility

Please refer to the attached Uranium Exploration Plan for further details regarding the Uranium exploration project.

EMPTY BARRELS & FUEL DRUMS

The empty barrels/fuel drums will be flown out to Yellowknife and/or Kugluktuk on the return flight that brought in supplies.

FUEL

Fuels will be used at the McGregor Lake Camp for heating and equipment operation. The following sections discuss fuel transport and storage, the quantity of fuel present at the camp, secondary containment and fuel transfer.

38.0 Quantity of Fuel, Transport, and Storage

Fuel will be transported to site by float and ski planes. Refer to Spill Contingency Plan section for more information.

Please refer to McGregor Lake Campsite Spill and Contingency Plan for complete details regarding fuel storage, use, transfer, and spill response.

Monthly Quantities of Fuel and Oil to be Stored at the Campsite

Fuel Type	Container Type	Number of Containers	Container Capacity (litre)	Total Volume to be Stored On-Site
Diesel (P-50)	Barrels	100	170L	17,000L
Gasoline	Barrels	10	170L	1,700L
Jet B	Barrels	300	170L	51,000L
Propane	Barrels	10	100 lb tank	1000 lbs
Lubricants & Oils	Plastic Jugs	25	20L	500L

The appropriate Material Safety Data Sheets are attached in Appendix B of this Plan.

The types of fuel and lubricants that will be stored on the camp site will consist of P-50 diesel motive, JET-B, Gasoline, Propane and an assortment of hydraulic oils and motor oils. The P-50 diesel motive will be used for heating and powering the generators, pumps, and other related heavy equipment. The JET-B will be used for helicopter refuelling and heating. Gasoline will be used for re-fuelling ski-doo's. Oils and lubricants will be used on the equipment

39.0 Secondary Containment

All fuel on the camp site will be stored in 170L structurally sound steel drums with secondary containment in accordance with Section 3.9 of the *CCME Environmental Code of Practice for Aboveground and Underground storage Tank Systems Containing Petroleum and Allied Products* (2003), and located 100m from the high water mark of McGregor Lake.

Upon arrival at the camp all drums are factory sealed and clearly marked. All drums will be inspected daily by 5050 Nunavut personnel for container and bung soundness. Prior to re-fuelling, all drum rubber seals are replaced. Any drum(s) noted to be leaking or showing signs of weakness and fatigue will immediately have all product transferred to a new drum(s). The emptied drum will be hauled off site with the next backhaul shipment to Kugluktuk and/or Yellowknife.

To encourage progressive reclamation, no more than 20% of the fuel drums will be empty at any one time. Any empties that are deemed not worthy of holding fuel are back hauled to landfill sites by and/or flown out in the summer months by plane for proper disposal in approved facilities in Kugluktuk and/or Yellowknife.

Spill kits will be available at all fuelling storage sites and fuel transfer areas as well as the campsite generator shack and drill rig.

40.0 Fuel Transfer

The helicopter will be fuelled directly from the Jet B drums by an electric pump powered by the aircraft's battery. There will be a spill kit and 170 L plastic tray at the site of the refuelling to mitigate any spillage of fuel during the process.

The drill rigs will be refuelled from drums of P-50 that are slung to the site by helicopter. The diesel will be pumped directly into the drill's fuel tank from the drums by an electric pump powered by the drill's battery. There will be a spill kit and 170 L plastic tray on site to mitigate any

spillage of fuel during the process.

The camp stoves and generator will be refuelled directly from the drums of P-50 using a small portable electric pump. A spill kit and 170 L plastic tray will be kept on hand during the procedure.

The small engines (snowmobiles, geophysics generators, and the water pump) will be refuelled with gasoline from 5 gallon jerry cans with a spill kit on hand.

PRODUCTS, CHEMICALS, AND HAZARDOUS MATERIALS

The types of materials and the transfer of these materials is discussed below.

41.0 Types and Storage

Types and quantities of products and chemicals will be determined once the Drill Contractor has been hired.

The chemicals required for drilling will most likely include: motor oil and grease for the drill; bags of calcium chloride (contained in double lined 50 lb plastic bags that would be stored in large canvas transport sacks until they are moved to the drill); Poly Drill OBX or similar non-toxic product (contained in 50 lb pails).

Household type cleaning products will be used in the kitchen, bathrooms and dry good storage area as well. These products will be stored in the kitchen building.

See above description for the treatment of hazardous wastes.

42.0 Secondary confinement

N/A

43.0 Transfer

The above materials are transported to the drill by helicopter as needed.

EXPLOSIVES

44.0 Types and quantities

N/A

PUBLIC INVOLVEMENT/ TRADITIONAL KNOWLEDGE

5050 Nunavut recognizes the need for and importance of public involvement and the benefits that traditional knowledge brings to the effective management and implementation of exploration projects. These items are discussed below.

45.0 Description of any Consultation with Interested Parties

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

COMMUNITIES, GROUPS AND ORGANIZATIONS AFFECTED

The project will contribute to the economic well-being of Kugluktuk community by creating employment opportunities for skilled and unskilled members of the community.

DESCRIPTION OF HOW TRADITIONAL KNOWLEDGE WAS OBTAINED, AND HOW IT HAS BEEN INTEGRATED INTO THE PROJECT

The local people working in the camp are the major source of traditional knowledge. They help in the camp setup, field activities and personnel safety in the camp based on their knowledge of the terrain, weather and wildlife.

SUMMARY OF PUBLIC INVOLVEMENT

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.

SPECIFIC HIRING POLICIES FOR INUIT BENEFICIARIES

The activities associated with the MIE and BVU exploration projects (e.g. the campsite and exploration activities) will employ Nunavut residents when possible.

OPPORTUNITIES FOR TRAINING AND EMPLOYMENT OF LOCAL INUIT BENEFICIARIES

For the purposes of the campsite and the associated exploration activities, 5050 Nunavut will hire up to 9 local workers as McGregor Lake Campsite employees through Kikiak Construction in Kugluktuk. Additional individuals may be hired as cleaning and cooking staff for the campsite.

WORKFORCE MOBILIZATION AND SCHEDULE

Three members of the crew will mobilize via Cat Train (per the 5050 Nunavut 2008 Winter Trail Permit Application) while the other 6 members will be flown to the McGregor Lake campsite via helicopter.

DISCUSSION OF FUTURE CONSULTATION PLANS

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

2.0 Description of the Existing Environment

Discussion of the existing environment is divided into the physical and biological environment, and the socioeconomic environment.

PHYSICAL AND BIOLOGICAL ENVIRONMENT

The MIE Project is situated on one of the world's largest continental-type magmatic events, the Mackenzie Igneous Event. This event deposited a huge lava volume – an estimated 5 to 10 million cubic kilometres – across Northern Canada. High-grade occurrences of copper, nickel and rich platinum group element (PGE) have been sampled along both walls of the Muskox magma chamber, suggesting that metals have accumulated at the bottom of the chamber.

The McGregor Lake area is characterized by a sub arctic climate with temperature extremes of minus 40° C in the winter to plus 30° C in the summer. The microclimate is very unpredictable and daily temperatures can change rapidly. The biggest single difficulty in the summer is the common occurrence of fog banks forming in the morning and persisting until noon.

The terrain and vegetation surrounding the project site is very typical of the tundra; consisting of a subdued topography with small valleys and gently rolling/sloping hills separated by lakes. The project is located north of the tree line and consists of continuous permafrost extending to an average depth of 300m.

There are numerous animal species that inhabit the area, 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, as well as arctic Char seen in the Coppermine River and Melville creek.

SOCIOECONOMIC ENVIRONMENT

Archaeological studies have not been conducted in the area. The project site is very remote and not visited very often. The land use within the area consists of occasional subsistence harvesting.

3.0 Identification of Impacts and Proposed Mitigation Measures

1.0 Impacts identified by attached Table 1

NIRB Table 1 (which can be found on the following page) identifies potential environmental impacts.

2.0 Impacts

Minimal environmental impact is anticipated from the construction of the camp

3.0 Potential socioeconomic impacts

Expected socioeconomic impacts include a small increase in the jobs available to the local communities. No general human health impacts are expected to result from the proposed activities.

4.0 Potential for transboundary effects related to the project

Transboundary effects are not applicable to this project.

5.0 Adverse Effects to Species Listed Under the Species at Risk Act

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

6.0 Mitigation Measures

The proposed camp layout and location are such that very little to no vegetation is disturbed and minimal surface disturbance occurs. The mitigation of impacts to permafrost will vary by activity. The shutdown period during ice-break up is timed to protect the permafrost by allowing the lake to thaw so that it may be used instead of the ice-airstrip for plane traffic. During the summer movement about the camp is restricted to prepared surfaces. After the thaw all movement outside of the camp will be by helicopter, with localized movement around drill locations. Camp structures are built so as to minimize the impact on the permafrost.

Food will be stored inside closed buildings and garbage will be incinerated daily to avoid attracting animals. When the camp is no longer required all imported materials will be burned or removed from the site. Any pits or earthworks will be backfill and re-contoured.

Fuel will be stored in 170 litre steel drums in approved containment according to regulations, and will be located 100m from the high water mark. Storage areas will be monitored regularly to detect and manage any leaks. Empty drums will be removed from the site. Spill kits will be maintained in all fuel storage and transfer areas and all staff will be trained regarding the spill contingency plan.

Camp domestic water will be drawn the mouth of Iceberg Creek, on the south west corner of McGregor Lake, in volumes that will not affect lake or creek habitats. All grey water will undergo biological treatment in a sump located 100m from the high water mark.

The drill rigs will be flown to the drill locations to limit ground disturbance. Based on the type of mineral being explored, the drill activities will be conducted a minimum distance of 30 to 100m from any water body. 5050 Nunavut will inform the helicopter pilots of the general

<i>P</i>	<i>N</i>	<i>M</i>	<i>U</i>
Positive			
Negative and non-mitigatable			
Negative and mitigatable			
Unknown			

locations of the muskoxen herds and will either bypass them or increase altitude to minimize the noise level on the ground. If bears are nearby, work will be aborted. Falcon nests will also be avoided.

4.0 Cumulative Effects

Exploration around McGregor Lake has been active since 1950, thus leaving the impact of abandoned camps and old drill holes. The project that 5050 Nunavut is proposing is of minimal environmental impact. The campsite is situated in an area of little to no vegetation, and will require no further land disturbances in the area. 5050 Nunavut will return the project areas as close as possible to their natural state once as outlined in their 2008 McGregor Lake Campsite Abandonment and Restoration Plan. As well airborne and snowmobile geophysical surveys are non-intrusive and the drilling that is planned is of low impact.

5.0 Supporting Documents

- **Abandonment and Decommissioning Plan**
See Winter Trail Abandonment and Restoration Plan (2007), provided with this package
- **Existing site photos with descriptions**
No photos are available
- **Emergency Response Spill Contingency Plan**
See Winter Trail Spill and Contingency Plan (2007), provided with this package
- Appendix A – Contact List
- Appendix B – Material Safety Data Sheets (MSDS)
- Appendix C – Spill Report Form
- Appendix D – Uranium Exploration Plan
- Appendix E – Nunavut Waste Generator Number
- Appendix F – Daily Wildlife Log



Species sighted: Caribou, Fox, Wolf, Bear, Wolverine, Other (describe) Number of Individuals: If < than 10; record actual #. If > than 10 record approximate #. If no individuals were spotted for the day; record zero. Activity of Individuals: sleeping, grazing, standing, walking, running, grooming, etc Location from camp: North, East, South, West

Appendix A – Contact List

Contact Telephone Numbers	Telephone	Facsimile
Emergency Spill Hotline	(867) 920-8130	(867) 873-6924
DIAND Water Resources Inspector (Notify inspector if a spill is reported to the emergency spill	(867) 975-4298	
5050 Nunavut / Adriana Resources – Vancouver office	(604) 629-0250	(604) 629-0923
Workers Compensation Board	(867) 669-4409	(867) 873-0262
RCMP – Kugluktuk	(867) 982-1111	
Kitikmeot Inuit Association – Kugluktuk	(867) 982-3310	(867) 982-3311
INAC Resource Management – Kitikmeot	(867) 982-4306	
Ministry of Environment – Rankin Inlet	(867) 645-8083	(867) 645-8085
Environment Canada		
Iqaluit	(867) -975-4464	
Environment protection 24 hour pager	(867) 920-5131	
Department of Environment, Nunavut	(867) 975-7700	
Department of Fisheries and Oceans	(867) 645-2871	
Nunavut Impact Review Board	(867) 983-2593	
Nunavut Water Board	(867) 360-6338	(867) 360-6369
Franz Environmental Inc.	(604) 632-9941	(604) 632-9942
Diamond Drill: Major Drilling – Nunavut/NWT		
Cory Redwood	(867) 873-3358	
Kikiak Construction – Kugluktuk, Nunavut	(867) 982-4713	
Air Tindi – Yellowknife, NWT	(888) 545-6794	
Adlair Aviation – Yellowknife, NWT	(867) 873-5161	
Air Thelon – Yellowknife, NWT	(867) 920-7110	
Arctic Air – Yellowknife, NWT	(867) 873-1210	
Arctic Sunwest Charters – Yellowknife, NWT	(867) 873-4464	
Buffalo Airways – Yellowknife, NWT	(867) 873-6112	
Remote Helicopters – Slave Lake, Alberta	(780) 849-2222	
1984 Enterprises Inc, Vancouver, BC, Ph: 604	(604) 736-8142	



Material Safety Data Sheet

WHMIS (Pictograms)	WHMIS (Classification)	Protective Clothing	TDG (pictograms)
 	B-3, D-2B	  	

Section 1. Chemical Product and Company Identification

Product Name	DIESEL FUEL	Code	W104, W293 SAP: 120, 121, 122, 287
Synonym	Diesel 50, Diesel 50 LS, #1 Diesel, #1 Diesel LS, Diesel LC, Seasonal Diesel, Seasonal Diesel LS, Diesel AA, Domestic Marine Diesel, International marine Diesel, Seasonal Diesel Locomotive, Domestic Marine diesel LS, diesel -20°C (LS), LSD, Low Sulphur Diesel, dyed diesel, marked diesel, coloured diesel, Naval Distillate, Ultra Low Sulphur Diesel, ULS Diesel, Mining Diesel, Mining Diesel Special, Mining Diesel Special LS, High Flash Mining Diesel, Furnace Oil, Stove Oil.	Validated on	2/6/2004.
Manufacturer	PETRO-CANADA P.O. Box 2844 Calgary, Alberta T2P 3E3	In case of Emergency	Petro-Canada: 403-296-3000 Canutec Transportation: 613-996-6666 Poison Control Centre: Consult local telephone directory for emergency number(s).
Material Uses	Diesel fuels are distillate fuels suitable for use in high and medium speed internal combustion engines of the compression ignition type. Mining Diesel has a higher flash point requirement, for safe use in underground mines.		

Section 2. Composition and Information on Ingredients

			Exposure Limits (ACGIH)		
Name	CAS #	% (V/V)	TLV-TWA(8 h)	STEL	CEILING
1) Diesel oil.	68334-30-5	>99.9	100 mg/m ³ (as total hydrocarbons) *	Not established	Not established
2) Proprietary additives.	Not available	<0.1	Not established	Not established	Not established
Aromatic content is 50% maximum (benzene: nil). Sulphur content is 0-0.50%.					
Manufacturer Recommendation	* Avoid prolonged or repeated skin contact to diesel fuels which can lead to dermal irritation and may be associated with an increased risk of skin cancer.				
Other Exposure Limits	Consult local, state, provincial or territory authorities for acceptable exposure limits.				

Section 3. Hazards Identification.

Potential Health Effects	Combustible liquid. Exercise caution when handling this material. Contact with this product may cause skin and eye irritation. Prolonged or repeated contact may cause skin irritation, defatting, drying and dermatitis. Inhalation of this product may cause respiratory tract irritation and Central Nervous System (CNS) Depression, symptoms of which may include; weakness, dizziness, slurred speech, drowsiness, unconsciousness and in cases of severe overexposure; coma and death. Ingestion of this product may cause gastro-intestinal irritation. Aspiration of this product may result in severe irritation or burns to the respiratory tract. For more information refer to Section 11 of this MSDS.
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Section 4. First Aid Measures

Eye Contact	IMMEDIATELY flush eyes with running water for at least 15 minutes, keeping eyelids open. Seek medical attention.
Skin Contact	Remove contaminated clothing - launder before reuse. Wash gently and thoroughly the contaminated skin with running water and non-abrasive soap. Seek medical attention.
Inhalation	Evacuate the victim to a safe area as soon as possible. If the victim is not breathing, perform artificial respiration. Allow the victim to rest in a well ventilated area. Seek medical attention.
Ingestion	DO NOT induce vomiting because of danger of aspirating liquid into lungs. Seek medical attention.
Note to Physician	Not available

Section 5. Fire-fighting Measures

Flammability	Class II - combustible liquid (NFPA).	Flammable Limits	LOWER: 0.7%, UPPER: 6% (NFPA)
Flash Points	Diesel Fuel: Closed Cup: >40°C (>104°F) Marine Diesel Fuel: Closed Cup: >60°C (>140°F) Mining Diesel: Closed Cup: 52°C (126°F)	Auto-Ignition Temperature	225°C (437°F)
Fire Hazards in Presence of Various Substances	Flammable in presence of open flames, sparks, or heat. Vapours are heavier than air and may travel considerable distance to sources of ignition and flash back. This product can accumulate static charge and ignite. May accumulate in confined spaces.	Explosion Hazards in Presence of Various Substances	Containers may explode in heat of fire. Do not cut, weld, heat, drill or pressurize empty container. Vapour explosion hazard indoors, outdoors or in sewers. Runoff to sewer may create fire or explosion hazard.
Products of Combustion	Carbon oxides (CO, CO ₂), nitrogen oxides (NO _x), sulphur oxides (SO _x), sulphur compounds (H ₂ S), water vapour (H ₂ O), smoke and irritating vapours as products of incomplete combustion. See Section 11 (Other Considerations) for information regarding the toxicity of the combustion products.		
Fire Fighting Media and Instructions	NAERG96, GUIDE 128, Flammable liquids (Non-polar/Water-immiscible). CAUTION: This product has a moderate flash point above 40°C: Use of water spray when fighting fire may be inefficient. If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also consider initial evacuation for 800 meters (1/2 mile) in all directions. SMALL FIRES: Dry chemical, CO₂, water spray or regular foam. LARGE FIRES: Water spray, fog or regular foam. Do not use straight streams. Move containers from fire area if you can do it without risk. Fires Involving Tanks or Car/Trailer Loads: Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. Cool containers with flooding quantities of water until well after fire is out. Withdraw immediately in case of rising sound from venting devices or any discolouration of tank. ALWAYS stay away from the ends of tanks. For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible withdraw from area and let fire burn. Wear positive pressure self-contained breathing apparatus (SCBA). Structural firefighters' protective clothing will only provide limited protection.		

Section 6. Accidental Release Measures

Material Release or Spill	Consult current National Emergency Response Guide Book (NAERG) for appropriate spill measures if necessary. IN THE EVENT OF A LARGE SPILL CONSIDER THE FOLLOWING CONTROL MEASURES: Extinguish all ignition sources. Stop leak if safe to do so. Ventilate area. Dike spilled material. Use appropriate inert absorbent material to absorb spilled product. Collect used absorbent for later disposal. Avoid contact with spilled material. Avoid breathing vapours or mists of material. Avoid contaminating sewers, streams, rivers and other water courses with spilled material. Evacuate non-essential personnel. Ensure clean-up personnel wear appropriate personal protective equipment. Ground and bond all equipment used to clean up the spilled material, as it may be a static accumulator. Notify appropriate authorities immediately.
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Section 7. Handling and Storage

Handling	COMBUSTIBLE MATERIAL. Handle with care. Avoid contact with any sources of ignition, flames, heat, and sparks. Avoid skin contact. Avoid eye contact. Avoid inhalation of product vapours or mists. Empty containers may contain product residue. Do not pressurize, cut, heat, or weld empty containers. Do not reuse containers without commercial cleaning and/or reconditioning. Personnel who handle this material should practice good personal hygiene during and after handling to help prevent accidental ingestion of this product. Properly dispose of contaminated leather articles including shoes that cannot be decontaminated. Avoid confined spaces and areas with poor ventilation. Ensure all equipment is grounded/bonded. Wear proper personal protective equipment (See Section 8).
Storage	Store away from heat and sources of ignition. Store in dry, cool, well-ventilated area. Store away from incompatible and reactive materials (See section 5 and 10). Ensure the storage containers are grounded/bonded.

Section 8. Exposure Controls/Personal Protection

Engineering Controls	For normal application, special ventilation is not necessary. If user's operations generate vapours or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit. Make-up air should always be supplied to balance air removed by exhaust ventilation. Ensure that eyewash station and safety shower are close to work-station.
Personal Protection -	The selection of personal protective equipment varies, depending upon conditions of use.
Eyes	Eye protection (i.e., safety glasses, safety goggles and/or face shield) should be determined based on conditions of use. If product is used in an application where splashing may occur, the use of safety goggles and/or a face shield should be considered.
Body	Wear appropriate clothing to prevent skin contact. As a minimum long sleeves and trousers should be worn.
Respiratory	Where concentrations in air may exceed the occupational exposure limits given in Section 2 (and those applicable to your area) and where engineering, work practices or other means of exposure reduction are not adequate, NIOSH approved respirators may be necessary to prevent overexposure by inhalation.
Hands	Wear appropriate chemically protective gloves. When handling hot product ensure gloves are heat resistant and insulated.
Feet	Wear appropriate footwear to prevent product from coming in contact with feet and skin.

Section 9. Physical and Chemical Properties

Physical State and Appearance	Bright oily liquid.	Viscosity	1.3 - 4.1 cSt @ 40°C (104°F)
Colour	Clear to yellow / brown (may be dyed for taxation purposes).	Pour Point	Variable, -50°C to 0°C (-58°F to -32°F)
Odour	Petroleum oil like.	Softening Point	Not applicable.
Odour Threshold	Not available	Dropping Point	Not applicable.
Boiling Point	150 - 371°C (302-700°F)	Penetration	Not applicable.
Density	0.80 - 0.85 kg/L @ 15°C (59°F)	Oil / Water Dist. Coefficient	Not available
Vapour Density	4.5 (Air = 1)	Ionicity (in water)	Not applicable.
Vapour Pressure	Not available	Dispersion Properties	Not available
Volatility	Semivolatile to volatile.	Solubility	Insoluble in cold water, soluble in non-polar hydrocarbon solvents.

Section 10. Stability and Reactivity

Corrosivity	Not available		
Stability	The product is stable under normal handling and storage conditions.	Hazardous Polymerization	Will not occur under normal working conditions.
Incompatible Substances / Conditions to Avoid	Reactive with oxidizing agents and acids.	Decomposition Products	May release COx, NOx, SOx, H2S, H2O, smoke and irritating vapours when heated to decomposition.

Section 11. Toxicological Information

Routes of Entry	Skin contact, eye contact, inhalation, and ingestion.
Acute Lethality	Acute oral toxicity (LD50): 7500 mg/kg (rat).
Chronic or Other Toxic Effects	
Dermal Route:	This product contains a component (at >= 1%) that can cause skin irritation. Therefore, this product is considered to be a skin irritant. Prolonged or repeated contact may defat and dry skin, and cause dermatitis. (See Other Considerations)
Inhalation Route:	Inhalation of this product may cause respiratory tract irritation. Inhalation of this product may cause Central Nervous System (CNS) Depression, symptoms of which may include; weakness, dizziness, slurred speech, drowsiness, unconsciousness and in cases of severe overexposure; coma and death.
Oral Route:	Ingestion of this product may cause gastro-intestinal irritation. Aspiration of this product may result in severe irritation or burns to the respiratory tract. Ingestion of this product may cause Central Nervous System (CNS) Depression, symptoms of which may include; weakness, dizziness, slurred speech, drowsiness, unconsciousness and in cases of severe overexposure; coma and death.
Eye Irritation/Inflammation:	This product contains a component (at >= 1%) that can cause eye irritation. Therefore, this product is considered to be an eye irritant.
Immunotoxicity:	Not available
Skin Sensitization:	Contact with this product is not expected to cause skin sensitization, based upon the available data and the known hazards of the components.
Respiratory Tract Sensitization:	Contact with this product is not expected to cause respiratory tract sensitization, based upon the available data and the known hazards of the components.
Mutagenic:	This product is not known to contain any components at >= 0.1% that have been shown to cause mutagenicity. Therefore, based upon the available data and the known hazards of the components, this product is not expected to be a mutagen.
Reproductive Toxicity:	This product is not known to contain any components at >= 0.1% that have been shown to cause reproductive toxicity. Therefore, based upon the available data and the known hazards of the components, this product is not expected to be a reproductive toxin.
Teratogenicity/Embryotoxicity:	This product is not known to contain any components at >= 0.1% that have been shown to cause teratogenicity and/or embryotoxicity. Therefore, based upon the available data and the known hazards of the components, this product is not expected to be a teratogen/embryotoxin.
Carcinogenicity (ACGIH):	ACGIH A3: animal carcinogen. [Diesel oil] (See Other Considerations)
Carcinogenicity (IARC):	This product is not known to contain any chemicals at reportable quantities that are listed as Group 1, 2A, or 2B carcinogens by IARC.
Carcinogenicity (NTP):	This product is not known to contain any chemicals at reportable quantities that are listed as carcinogens by NTP.
Carcinogenicity (IRIS):	This product is not known to contain any chemicals at reportable quantities that are listed as carcinogens by IRIS.

DIESEL FUEL		Page Number: 4
Carcinogenicity (OSHA):	This product is not known to contain any chemicals at reportable quantities that are listed as carcinogens by OSHA.	
Other Considerations	Avoid prolonged or repeated skin contact to diesel fuels which can lead to dermal irritation and may be associated with an increased risk of skin cancer. Diesel engine exhaust particulate is probably carcinogenic to humans (IARC Group 2A).	

Section 12. Ecological Information			
Environmental Fate	Not available	Persistence/Bioaccumulation Potential	Not available
BOD5 and COD	Not available	Products of Biodegradation	Not available
Additional Remarks	No additional remark.		

Section 13. Disposal Considerations	
Waste Disposal	Spent/ used/ waste product may meet the requirements of a hazardous waste. Consult your local or regional authorities. Ensure that waste management processes are in compliance with government requirements and local disposal regulations.

Section 14. Transport Information			
TDG Classification	DIESEL FUEL, 3, UN1202, PGIII (CL-TDG)	Special Provisions for Transport	See Transportation of Dangerous Goods Regulations.

Section 15. Regulatory Information																													
Other Regulations		This product is acceptable for use under the provisions of WHMIS-CPR. All components of this formulation are listed on the CEPA-DSL (Domestic Substances List). All components of this formulation are listed on the US EPA-TSCA Inventory. All components of this product are on the European Inventory of Existing Commercial Chemical Substances (EINECS). This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR. Please contact Product Safety for more information.																											
DSD/DPD (Europe)		Not evaluated.		HCS (U.S.A.)		CLASS: Irritating substance. CLASS: Target organ effects. CLASS: Combustible liquid having a flash point between 37.8°C (100°F) and 93.3°C (200°F).																							
ADR (Europe) (Pictograms)		NOT EVALUATED FOR EUROPEAN TRANSPORT NON ÉVALUÉ POUR LE TRANSPORT EUROPÉEN.		DOT (U.S.A) (Pictograms)																									
HMIS (U.S.A.)		<table><tr><td>Health Hazard</td><td>(2*)</td></tr><tr><td>Fire Hazard</td><td>(2)</td></tr><tr><td>Reactivity</td><td>(0)</td></tr><tr><td>Personal Protection</td><td>(H)</td></tr></table>		Health Hazard	(2*)	Fire Hazard	(2)	Reactivity	(0)	Personal Protection	(H)	NFPA (U.S.A.)				Fire Hazard Reactivity Specific hazard		Rating	<table><tr><td>0</td><td>Insignificant</td></tr><tr><td>1</td><td>Slight</td></tr><tr><td>2</td><td>Moderate</td></tr><tr><td>3</td><td>High</td></tr><tr><td>4</td><td>Extreme</td></tr></table>	0	Insignificant	1	Slight	2	Moderate	3	High	4	Extreme
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Reactivity	(0)																												
Personal Protection	(H)																												
0	Insignificant																												
1	Slight																												
2	Moderate																												
3	High																												
4	Extreme																												
				Health																									

Section 16. Other Information	
References	Available upon request. * Marque de commerce de Petro-Canada - Trademark
Glossary	ACGIH - American Conference of Governmental Industrial Hygienists ADR - Agreement on Dangerous goods by Road (Europe) ASTM - American Society for Testing and Materials (BOD5 - Biological Oxygen Demand in 5 days CAN/CGA B149.2 Propane Installation Code CAS - Chemical Abstract Services CEPA - Canadian Environmental Protection Act CERCLA - Comprehensive Environmental Response, Compensation and Liability Act CFR - Code of Federal Regulations CHIP - Chemicals Hazard Information and Packaging Approved Supply List COD5 - Chemical Oxygen Demand in 5 days CPR - Controlled Products Regulations DOT - Department of Transport DSCL - Dangerous Substances Classification and Labeling (Europe) IRIS - Integrated Risk Information System LD50/LC50 - Lethal Dose/Concentration kill 50% LDLo/LCLo - Lowest Published Lethal Dose/Concentration NAERG'96 - North American Emergency Response Guide Book (1996) NFPA - National Fire Prevention Association NIOSH - National Institute for Occupational Safety & Health NPRI - National Pollutant Release Inventory NSNR - New Substances Notification Regulations (Canada) NTP - National Toxicology Program OSHA - Occupational Safety & Health Administration PEL - Permissible Exposure Limit RCRA - Resource Conservation and Recovery Act SARA - Superfund Amendments and Reorganization Act SD - Single Dose STEL - Short Term Exposure Limit (15 minutes)
Continued on Next Page Internet: www.petro-canada.ca/msds Available in French	

DSD/DPD - Dangerous Substances or Dangerous Preparations Directives (Europe)
DSL - Domestic Substance List
EEC/EU - European Economic Community/European Union
EINECS - European Inventory of Existing Commercial Chemical Substances
EPCRA - Emergency Planning and Community Right to Know Act
FDA - Food and Drug Administration
FIFRA - Federal Insecticide, Fungicide and Rodenticide Act
HCS - Hazardous Communication System
HMIS - Hazardous Material Information System
IARC - International Agency for Research on Cancer

TDG - Transportation Dangerous Goods (Canada)
TDLo/TCLo - Lowest Published Toxic Dose/Concentration
TLm - Median Tolerance Limit
TLV-TWA - Threshold Limit Value-Time Weighted Average
TSCA - Toxic Substances Control Act
USEPA - United States Environmental Protection Agency
USP - United States Pharmacopoeia
WHMIS - Workplace Hazardous Material Information System

For Copy of MSDS

Internet: www.petro-canada.ca/msds

Western Canada, Ontario & Central Canada, telephone: 1-800-668-0220; fax: 1-800-837-1228
Quebec & Eastern Canada, telephone: 514-640-8308; fax: 514-640-8385

For Product Safety Information: (905) 804-4752

Prepared by Product Safety - JDW on 2/6/2004.

Data entry by Product Safety - JDW.

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.



Material Safety Data Sheet

WHMIS (Pictograms)	WHMIS (Classification)	Protective Clothing	TDG (pictograms)
 	B-2, D-2A, D-2B	   	

Section 1. Chemical Product and Company Identification

Product Name	GASOLINE, UNLEADED	Code	W102E
Synonym	Regular, Unleaded Gasoline (US Grade), Mid-Grade, Plus, Super, WinterGas, SummerGas, Supreme, SuperClean WinterGas, RegularClean, PlusClean, Premium, marked or dyed gasoline, Super Premium (94 RO)	Validated on	6/9/2004.
Manufacturer	PETRO-CANADA P.O. Box 2844 Calgary, Alberta T2P 3E3	In case of Emergency	Petro-Canada: 403-296-3000 Canutec Transportation: 613-996-6666 Poison Control Centre: Consult local telephone directory for emergency number(s).
Material Uses	Unleaded gasoline is used in spark ignition engines including motor vehicles, inboard and outboard boat engines, small engines such as chain saws and lawn mowers, and recreational vehicles.		

Section 2. Composition and Information on Ingredients

			Exposure Limits (ACGIH)		
Name	CAS #	% (V/V)	TLV-TWA(8 h)	STEL	CEILING
Gasoline	8006-61-9	85-100	300 ppm (890 mg/m ³)	500 ppm (1480 mg/m ³)	Not established
Methyl tert-butyl ether	1634-04-4	0-15	40 ppm (144mg/m ³)	Not established	Not established
Note: Petro-Canada does not use MTBE in the manufacturing of its gasoline, however MTBE can be introduced from time to time through the use of external gasoline blendstocks.					
Manufacturer Recommendation	Not applicable				
Other Exposure Limits	Consult local, state, provincial or territory authorities for acceptable exposure limits.				

Section 3. Hazards Identification.

Potential Health Effects	Possible cancer hazard. Inhalation of vapours can be irritating to respiratory tract and cause CNS depression with symptoms of nausea, headaches, vomiting, dizziness, fatigue, light-headedness, reduced coordination, unconsciousness and possibly death. Skin and eye contact can cause irritation. Toxic if ingested. For more information, refer to Section 11.
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Section 4. First Aid Measures

Eye Contact	IMMEDIATELY flush eyes with running water for at least 15 minutes, keeping eyelids open. Seek medical attention if irritation persists.
Skin Contact	Remove contaminated clothing - launder before reuse. Wash gently and thoroughly the contaminated skin with running water and non-abrasive soap. Seek medical attention.
Inhalation	Evacuate the victim to a safe area as soon as possible. If the victim is not breathing, perform artificial respiration. Allow the victim to rest in a well ventilated area. Seek medical attention.
Ingestion	DO NOT induce vomiting because of danger of aspirating liquid into lungs. Seek medical attention.
Note to Physician	Not available

Section 5. Fire-fighting Measures

Flammability	Flammable liquid (NFPA).	Flammable Limits	Lower: 1.3%; Upper: 7.6% (NFPA).
Flash Points	Closed Cup: -50 to -38°C (-58 to -36°F), ASTM D56 Standard Test Method for Flash Point by Tag Closed Tester.	Auto-Ignition Temperature	257°C (495°F) (NFPA).
Fire Hazards in Presence of Various Substances	Extremely flammable in presence of open flames, sparks, and heat. Vapours are heavier than air and may travel considerable distance to sources of ignition and flash back. Rapid escape of vapour may generate static charge causing ignition.	Explosion Hazards in Presence of Various Substances	Do not cut, weld, heat, drill or pressurize empty container. Containers may explode in heat of fire. Vapours may form explosive mixtures with air.
Products of Combustion	Carbon oxides (CO, CO ₂), nitrogen oxides (NO _x), polynuclear aromatic hydrocarbons, phenols, smoke and irritating vapours as products of incomplete combustion.		
Fire Fighting Media and Instructions	NAERG96, GUIDE 128, flammable/combustible liquid (non-polar/water-immiscible). CAUTION: This product has a very low flash point, use of water spray when fighting fire may be inefficient. SMALL FIRE: Use DRY chemicals, CO ₂ , water spray or foam. LARGE FIRE: Use water spray, fog or foam. DO NOT use water jet. If tank, rail car or tank truck is involved in a fire, ISOLATE for 1600 meters (1 mile) in all directions; also, consider initial evacuation for 1600 meters (1 mile) in all directions. DO NOT extinguish a leaking gas flame unless leak can be stopped. Shut off fuel to fire if it is possible to do so without hazard. If this is impossible, withdraw from area and let fire burn out under controlled conditions. Withdraw immediately in case of rising sound from venting safety device or any discolouration of tank due to fire. Cool containing vessels with water spray in order to prevent pressure build-up, autoignition or explosion. Avoid flushing spilled material into sewers, streams or other bodies of water. Self-contained breathing apparatus (SCBA) will be required if approaching the fire from downwind, or to enter enclosed areas or buildings.		

Section 6. Accidental Release Measures

Material Release or Spill	NAERG96, GUIDE 128, flammable/combustible liquid (non-polar/water-immiscible). Evacuate in a downwind direction for at least 300 meters (1000 feet). ELIMINATE ALL IGNITION SOURCES. Ventilate closed spaces before entering. By forced ventilation, maintain concentration of vapour below the range of explosive mixture. Avoid contact, fully-encapsulating, vapour-protective clothing should be worn for spills and leaks with no fire. Stop leak if without risk. Use vapour suppressing foam or water spray to reduce vapours; it may reduce vapour, but it may not prevent ignition in closed spaces; isolate area until vapour has dispersed. Contain spill. Absorb with inert absorbents such as dry clay, or diatomaceous earth, or recover using electrically grounded explosion-proof pumps. Avoid inhaling dust of diatomaceous earth for it may contain silica (very fine particle size), making this a potential respiratory hazard. Place used absorbent in closed metal containers for later disposal or burn absorbent in a suitable combustion chamber. DO NOT FLUSH TO SEWERS, STREAMS OR OTHER BODIES OF WATER. Check with applicable jurisdiction for specific disposal requirements of spilled material and empty containers. Notify the appropriate authorities immediately.
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Section 7. Handling and Storage

Handling	Keep away from heat, spark and other sources of ignition. Empty container may contain flammable/explosive residues or vapours. DO NOT reuse empty containers without commercial cleaning or reconditioning. Ground/bond line and equipment during pumping or transfer to avoid accumulation of static charge. DO NOT USE AS CLEANING FLUID OR SIPHON BY MOUTH. Wear proper protective equipment. Avoid inhalation and contact with skin or eyes. Practice good personal hygiene. Wash hands after handling and before eating. Launder work clothes frequently. Discard saturated leather goods.
Storage	Store in cool, dry, isolated, well-ventilated area, and away from direct sunlight, sources of ignition and incompatibles. Flammable materials should be stored in a separate safety storage cabinet or room. Ground all equipment containing material.

Section 8. Exposure Controls/Personal Protection

Engineering Controls	For normal application, special ventilation is not necessary. If user's operations generate vapours or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit. Make-up air should always be supplied to balance air removed by exhaust ventilation. Ensure that eyewash station and safety shower are close to work-station.
Personal Protection - The selection of personal protective equipment varies, depending upon conditions of use.	
Eyes	Eye protection (i.e., safety glasses, safety goggles and/or face shield) should be determined based on conditions of use. If product is used in an application where splashing may occur, the use of safety goggles and/or a face shield should be considered.
Body	Wear appropriate clothing to prevent skin contact. As a minimum long sleeves and trousers should be worn.

Respiratory Where concentrations in air may exceed the occupational exposure limits given in Section 2 (and those applicable to your area) and where engineering, work practices or other means of exposure reduction are not adequate, NIOSH approved respirators may be necessary to prevent overexposure by inhalation.

Hands Wear appropriate chemically protective gloves. When handling hot product ensure gloves are heat resistant and insulated.

Feet Wear appropriate footwear to prevent product from coming in contact with feet and skin.

Section 9. Physical and Chemical Properties

Physical State and Appearance	Clear liquid.	Viscosity	Not available
Colour	Clear to slightly yellow, undyed liquid. May be dyed red for taxation purposes.	Pour Point	Not applicable.
Odour	Gasoline. MTBE has a terpene-like odour.	Softening Point	Not applicable.
Odour Threshold	Less than 1 ppm.	Dropping Point	Not applicable.
Boiling Point	25 to 220°C (77 to 428°F) Initial boiling point by ASTM D86 Standard Test Method.	Penetration	Not applicable.
Density	0.7 kg/L @ 15°C (59°F).	Oil / Water Dist. Coefficient	Not available
Vapour Density	3 to 4 (Air = 1) (NFPA).	Ionicity (in water)	Insoluble in water.
Vapour Pressure	<107 kPa @ 37.8°C (100°F)	Dispersion Properties	Not available
Volatility	Volatile.	Solubility	Hydrocarbon components virtually insoluble in water. Soluble in alcohol, ether, chloroform, and benzene. Dissolves fats, oils and natural resins.

Section 10. Stability and Reactivity

Corrosivity	Non corrosive.		
Stability	The product is stable under normal handling and storage conditions.	Hazardous Polymerization	Will not occur under normal working conditions.
Incompatible Substances / Conditions to Avoid	Reactive with oxidizing agents, acids.	Decomposition Products	May release COx, NOx, phenols, polynuclear aromatic hydrocarbons, smoke and irritating vapours when heated to decomposition.

Section 11. Toxicological Information

Routes of Entry	Skin contact, eye contact, inhalation, and ingestion.
Acute Lethality	Gasoline: Acute oral toxicity (LD50): 13 600 mg/kg (rat). Acute dermal toxicity (LD50): >5000 mg/kg (rabbit). Acute inhalation toxicity (LC50): >300 000 mg/m ³ /4h (rat). MTBE: Acute oral toxicity (LD50): 29630 mg/kg (rat). Acute dermal toxicity (LD50): >6800 mg/kg (rabbit). Acute inhalation toxicity (LC50): 23 576 ppm/4h (rat).
Chronic or Other Toxic Effects	
Dermal Route:	This product can cause skin irritation. Prolonged or repeated contact with skin may cause dermatitis.
Inhalation Route:	Inhalation of vapours can be irritating to respiratory tract and cause CNS depression with symptoms of nausea, headaches, vomiting, dizziness, fatigue, light-headedness, reduced coordination, unconsciousness and possibly death.
Oral Route:	Swallowing or vomiting of the liquid may result in aspiration into the lungs. Can cause CNS depression. (See Inhalation Route for symptoms).
Eye Irritation/Inflammation:	Can cause irritation to the eyes.
Immunotoxicity:	Not available

Skin Sensitization:	This product is not expected to be a skin sensitizer, based on the available data and the known hazards of the components.
Respiratory Tract Sensitization:	This product is not expected to be a respiratory tract sensitizer, based on the available data and the known hazards of the components.
Mutagenic:	This product is not considered to be a mutagen, based on the available data and the known hazards of the components.
Reproductive Toxicity:	This product is not considered to be a reproductive hazard, based on the available data and the known hazards of the components.
Teratogenicity/Embryotoxicity:	This product is not considered to be a teratogen or an embryotoxin, based on the available data and the known hazards of the components.
Carcinogenicity (ACGIH):	ACGIH A3: animal carcinogen. [Gasoline, MTBE]
Carcinogenicity (IARC):	IARC Group 2B: possibly carcinogenic to humans. [Gasoline]
Carcinogenicity (NTP):	This product is not known to contain any chemicals at reportable quantities that are listed as carcinogens by NTP.
Carcinogenicity (IRIS):	Not available
Carcinogenicity (OSHA):	This product is not known to contain any chemicals at reportable quantities that are listed as carcinogens by OSHA.
Other Considerations	Unleaded gasoline caused kidney effects in male rats and liver effects in female mice.

Section 12. Ecological Information

Environmental Fate	Not available	Persistence/Bioaccumulation Potential	Not available
BOD5 and COD	Not available	Products of Biodegradation	Not available
Additional Remarks	Not available		

Section 13. Disposal Considerations

Waste Disposal	Preferred waste management priorities are: (1) recycle or reprocess; (2) incineration with energy recovery; (3) disposal at licensed waste disposal facility. Ensure that disposal or reprocessing is in compliance with government requirements and local disposal regulations. Consult your local or regional authorities.
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Section 14. Transport Information

TDG Classification	GASOLINE, 3, UN1203, PGII (CL-TDG)	Special Provisions for Transport	See Transportation of Dangerous Goods Regulations.
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Section 15. Regulatory Information

Other Regulations		CEPA: This product is acceptable for use under the provisions of the WHMIS-CPR. All components of this formulation are listed on the CEPA-DSL (Domestic Substances List). EPA: All components of this formulation are listed on the US EPA-TSCA Inventory.																
		This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR. Please contact Product Safety for more information.																
DSD/DPD (Europe)		Not evaluated.		HCS (U.S.A.)	CLASS: Contains material which may cause cancer. CLASS: Flammable liquid having a flash point lower than 37.8°C (100°F). CLASS: Irritating substance. CLASS: Target organ effects.													
ADR (Europe) (Pictograms)		NOT EVALUATED FOR EUROPEAN TRANSPORT NON ÉVALUÉ POUR LE TRANSPORT EUROPÉEN.		DOT (U.S.A) (Pictograms)														
HMIS (U.S.A.)		<table><tr><td>Health Hazard</td><td>2*</td></tr><tr><td>Fire Hazard</td><td>4</td></tr><tr><td>Reactivity</td><td>0</td></tr></table>		Health Hazard	2*	Fire Hazard	4	Reactivity	0	NFPA (U.S.A.) <table><tr><td rowspan="2">Health</td><td>2</td><td>4</td><td rowspan="2">Fire Hazard</td></tr><tr><td>0</td><td>0</td><td>Reactivity</td></tr></table>		Health	2	4	Fire Hazard	0	0	Reactivity
Health Hazard	2*																	
Fire Hazard	4																	
Reactivity	0																	
Health	2	4	Fire Hazard															
	0	0		Reactivity														
				Rating	0 Insignificant 1 Slight 2 Moderate													

Personal Protection

H

Specific hazard

3 High

4 Extreme

Section 16. Other Information**References**

Available upon request.

* Marque de commerce de Petro-Canada - Trademark

Glossary

ACGIH - American Conference of Governmental Industrial Hygienists
 ADR - Agreement on Dangerous goods by Road (Europe)
 ASTM - American Society for Testing and Materials
 BOD5 - Biological Oxygen Demand in 5 days
 CAN/CGA B149.2 Propane Installation Code
 CAS - Chemical Abstract Services
 CEPA - Canadian Environmental Protection Act
 CERCLA - Comprehensive Environmental Response, Compensation and Liability Act
 CFR - Code of Federal Regulations
 CHIP - Chemicals Hazard Information and Packaging Approved Supply List
 COD5 - Chemical Oxygen Demand in 5 days
 CPR - Controlled Products Regulations
 DOT - Department of Transport
 DSCl - Dangerous Substances Classification and Labeling (Europe)
 DSD/DPD - Dangerous Substances or Dangerous Preparations Directives (Europe)
 DSL - Domestic Substance List
 EEC/EU - European Economic Community/European Union
 EINECS - European Inventory of Existing Commercial Chemical Substances
 EPCRA - Emergency Planning and Community Right to Know Act
 FDA - Food and Drug Administration
 FIFRA - Federal Insecticide, Fungicide and Rodenticide Act
 HCS - Hazardous Communication System
 HMIS - Hazardous Material Information System
 IARC - International Agency for Research on Cancer

IRIS - Integrated Risk Information System
 LD50/LC50 - Lethal Dose/Concentration kill 50%
 LDLo/LCLo - Lowest Published Lethal Dose/Concentration
 NAERG'96 - North American Emergency Response Guide Book (1996)
 NFPA - National Fire Prevention Association
 NIOSH - National Institute for Occupational Safety & Health
 NPRI - National Pollutant Release Inventory
 NSNR - New Substances Notification Regulations (Canada)
 NTP - National Toxicology Program
 OSHA - Occupational Safety & Health Administration
 PEL - Permissible Exposure Limit
 RCRA - Resource Conservation and Recovery Act
 SARA - Superfund Amendments and Reorganization Act
 SD - Single Dose
 STEL - Short Term Exposure Limit (15 minutes)
 TDG - Transportation Dangerous Goods (Canada)
 TDLo/TCLo - Lowest Published Toxic Dose/Concentration
 TLM - Median Tolerance Limit
 TLV-TWA - Threshold Limit Value-Time Weighted Average
 TSCA - Toxic Substances Control Act
 USEPA - United States Environmental Protection Agency
 USP - United States Pharmacopoeia
 WHMIS - Workplace Hazardous Material Information System

For Copy of MSDS**Fuels & Solvents:**

Western Canada, telephone: 403-296-4158; fax: 403-296-6551

Ontario & Central Canada, telephone: 1-800-668-0220; fax: 1-800-837-1228

Quebec & Eastern Canada, telephone: 514-640-8308; fax: 514-640-8385

For Product Safety Information: (905) 804-4752

Prepared by Product Safety - JDW on 6/9/2004.

Data entry by Product Safety - RS.

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.



Material Safety Data Sheet

WHMIS (Pictograms)	WHMIS (Classification)	Protective Clothing	TDG (pictograms)
 	B-2, D-2A, D-2B	   	

Section 1. Chemical Product and Company Identification

Product Name	JET B AVIATION TURBINE FUEL	Code	W219 SAP: 150, 151, 152
Synonym	Jet B; Jet B DI; JP-4; Jet F-40; NATO F-40; Turbine Fuel, Aviation, Wide Cut Type (CAN/CGSB-3.22).	Validated on	12/3/2001.
Manufacturer	PETRO-CANADA P.O. Box 2844 Calgary, Alberta T2P 3E3	In case of Emergency	Petro-Canada: 403-296-3000 Canutec Transportation: 613-996-6666 Poison Control Centre: Consult local telephone directory for emergency number(s).
Material Uses	Used as aviation turbine fuel. May contain a fuel system icing inhibitor.		

Section 2. Composition and Information on Ingredients

			Exposure Limits (ACGIH)		
Name	CAS #	% (V/V)	TLV-TWA(8 h)	STEL	CEILING
1) Complex mixture of petroleum hydrocarbons (C6-C14).	64741-41-9	>99	Not established	Not established	Not established
2) Benzene	71-43-2	<0.5	0.5 ppm	2.5 ppm	Not established
3) Fuel System Icing Inhibitor (FSII) (if added*): Diethylene Glycol Monomethyl Ether	111-77-3	≤0.15	Not established	Not established	Not established
4) Anti-static, antioxidant and metal deactivator additives.	Not applicable	<0.1	Not applicable	Not applicable	Not applicable
* Please note that Jet B DI, JP-4, Jet F-40 and NATO F-40 all contain Fuel System Icing Inhibitor (FSII).					
Manufacturer Recommendation	Not applicable				
Other Exposure Limits	Consult local, state, provincial or territory authorities for acceptable exposure limits.				

Section 3. Hazards Identification.

Potential Health Effects	Skin and eye contact can cause irritation. Inhalation of vapours can cause irritation of the respiratory tract and CNS depression with symptoms of nausea, headaches, vomiting, dizziness, fatigue, light-headedness, reduced coordination, unconsciousness and possibly death. Aspiration into the lungs may produce potentially fatal chemical pneumonitis (fluid in the lungs), severe lung damage, or respiratory failure. This product contains a cancer causing agent. For more information, refer to Section 11.
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Section 4. First Aid Measures

Eye Contact	IMMEDIATELY flush eyes with running water for at least 15 minutes, keeping eyelids open. Seek medical attention.
Skin Contact	Remove contaminated clothing - launder before reuse. Wash gently and thoroughly the contaminated skin with running water and non-abrasive soap. Seek medical attention.
Inhalation	Evacuate the victim to a safe area as soon as possible. If the victim is not breathing, perform artificial respiration. Allow the victim to rest in a well ventilated area. Seek medical attention.
Ingestion	DO NOT induce vomiting because of danger of aspirating liquid into lungs. Seek medical attention.
Note to Physician	Not available

Section 5. Fire-fighting Measures

Flammability	Flammable liquid (NFPA).	Flammable Limits	LOWER: 1.3% UPPER: 8% (NFPA)
Flash Points	CLOSED CUP: -31°C (-24°F) (NFPA)	Auto-Ignition Temperature	240°C (464°F) (NFPA)
Fire Hazards in Presence of Various Substances	Flammable in presence of open flames, sparks, and heat. Vapours are heavier than air and may travel considerable distance to sources of ignition and flash back. This product can accumulate static charge and ignite. May accumulate in confined spaces.	Explosion Hazards in Presence of Various Substances	Do not cut, weld, heat, drill or pressurize empty container. Containers may explode in heat of fire.
Products of Combustion	Carbon oxides (CO, CO ₂), nitrogen oxides (NO _x), sulphur oxides (SO _x), aldehydes, ketones, smoke and irritating vapours as products of incomplete combustion.		

**Fire Fighting
Media and
Instructions**

NAERG96, GUIDE 128, Flammable liquids (Non-polar/Water-immiscible).

CAUTION: This product has a very low flash point: Use of water spray when fighting fire may be inefficient.

If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also consider initial evacuation for 800 meters (1/2 mile) in all directions.

SMALL FIRES: Dry chemical, CO₂, water spray or regular foam.

LARGE FIRES: Water spray, fog or regular foam. Do not use straight streams. Move containers from fire area if you can do it without risk.

Fires Involving Tanks or Car/Trailer Loads: Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.

Cool containers with flooding quantities of water until well after fire is out. Withdraw immediately in case of rising sound from venting devices or any discolouration of tank. ALWAYS stay away from the ends of tanks. For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible withdraw from area and let fire burn. Wear positive pressure self-contained breathing apparatus (SCBA). Structural firefighters' protective clothing will only provide limited protection.

Section 6. Accidental Release Measures**Material Release
or Spill**

NAERG96, GUIDE 128, Flammable Liquids (Non-polar/ Water-immiscible). ELIMINATE ALL IGNITION SOURCES. Avoid contact. Stop leak if without risk. Contain spill. Absorb with inert absorbents, dry clay, or diatomaceous earth. Avoid inhaling dust of diatomaceous earth for it may contain silica in very fine particle size, making this a potential respiratory hazard. Place used absorbent in closed metal containers for later disposal or burn absorbent in a suitable combustion chamber. DO NOT FLUSH TO SEWERS, STREAMS OR OTHER BODIES OF WATER. Check with applicable jurisdiction for specific disposal requirements of spilled material and empty containers. Notify the appropriate authorities immediately.

Section 7. Handling and Storage**Handling**

Keep away from heat. Keep away from sources of ignition. Empty containers pose a fire risk. DO NOT reuse empty containers without commercial cleaning or reconditioning. Ground/bond line and equipment during pumping or transfer to avoid accumulation of static charge. DO NOT ingest. Do not breathe gas/vapour/spray. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately. Avoid contact with skin and eyes. Practice good personal hygiene. Wash hands after handling and before eating. Launder work clothes frequently. Discard saturated leather goods.

Storage

Store in tightly closed containers in cool, dry, isolated, well-ventilated area, and away from incompatibles. Ground all equipment containing material. Keep away from direct sunlight.

Section 8. Exposure Controls/Personal Protection**Engineering Controls**

For normal application, special ventilation is not necessary. If user's operations generate vapours or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit. Make-up air should always be supplied to balance air removed by exhaust ventilation. Ensure that eyewash station and safety shower are close to work-station.

Personal Protection - *The selection of personal protective equipment varies, depending upon conditions of use.*

Eyes Eye protection (i.e., safety glasses, safety goggles and/or face shield) should be determined based on conditions of use. If product is used in an application where splashing may occur, the use of safety goggles and/or a face shield should be considered.

Body Wear appropriate clothing to prevent skin contact. As a minimum long sleeves and trousers should be worn.

Respiratory Where concentrations in air may exceed the occupational exposure limits given in Section 2 (and those applicable to your area) and where engineering, work practices or other means of exposure reduction are not adequate, NIOSH approved respirators may be necessary to prevent overexposure by inhalation.

Hands Wear appropriate chemically protective gloves. When handling hot product ensure gloves are heat resistant and insulated.

Feet Wear appropriate footwear to prevent product from coming in contact with feet and skin.

Section 9. Physical and Chemical Properties

Physical State and Appearance	Clear liquid.	Viscosity	Not available (similar to gasoline)
Colour	Clear and colourless.	Pour Point	Freezing Point: <-51°C (<-60°F) for Jet B/Jet B DI; <-58°C (<-72°F) for Jet Fuel F-40.
Odour	Gasoline like.	Softening Point	Not applicable.
Odour Threshold	Not available	Dropping Point	Not applicable.
Boiling Point	50 to 270°C (122 to 518°F)	Penetration	Not applicable.
Density	0.75 to 0.80 kg/L @ 15°C (59°F).	Oil / Water Dist. Coefficient	Not available
Vapour Density	3.5 (Air = 1)	Ionicity (in water)	Not available
Vapour Pressure	21 kPa (158 mmHg) @ 37.8°C (100°F).	Dispersion Properties	Not available
Volatility	Volatile.	Solubility	Insoluble in water. Partially miscible in some alcohols. Miscible in other petroleum solvents.

Section 10. Stability and Reactivity

Corrosivity	Not available		
Stability	The product is stable under normal handling and storage conditions.	Hazardous Polymerization	Will not occur under normal working conditions.
Incompatible Substances / Conditions to Avoid	Reactive with oxidizing agents and acids.	Decomposition Products	May release COx, NOx, SOx, aldehydes, ketones, smoke and irritating vapours when heated to decomposition.

Section 11. Toxicological Information

Routes of Entry	Skin contact, eye contact, inhalation and ingestion.		
Acute Lethality	Based on toxicity of similar product. Acute oral toxicity (LD50): >20000 mg/kg (rat). Acute dermal toxicity (LD50): >5000 mg/kg (rabbit). Acute inhalation toxicity (LC50): >5000 mg/m³/4h (rat). Benzene Acute oral toxicity (LD50): 930 mg/kg (rat). Acute dermal toxicity (LD50): >9400 mg/kg (rabbit). Acute inhalation toxicity (LC50): 13200 ppm/4h (rat). Diethylene Glycol Monomethyl Ether Acute oral toxicity (LD50): 4140-5180 mg/kg (rat). Acute dermal toxicity (LD50): >2000 mg/kg (rabbit). Acute inhalation toxicity (LC50): >50000 mg/m³/4h (rat).		
Chronic or Other Toxic Effects			
Dermal Route:	Skin contact can cause irritation.		
Inhalation Route:	Inhalation of vapours can cause irritation of the respiratory tract and CNS depression with symptoms of nausea, headaches, vomiting, dizziness, fatigue, light-headedness, reduced coordination, unconsciousness and possibly death.		
Oral Route:	Aspiration into the lungs may produce potentially fatal chemical pneumonitis (fluid in the lungs), severe lung damage, or respiratory failure.		
Eye Irritation/Inflammation:	Eye contact can cause irritation.		
Immunotoxicity:	Not available		
Skin Sensitization:	This product is not expected to be a skin sensitizer, based on the available data and the known hazards of the components.		
Respiratory Tract Sensitization:	This product is not expected to be a respiratory tract sensitizer, based on the available data and the known hazards of the components.		
Mutagenic:	Benzene is tumorigenic by RTECS criteria.		
Reproductive Toxicity:	This product is not expected to be a reproductive hazard, based on the available data and the known hazards of the components.		
Teratogenicity/Embryotoxicity:	Fetotoxicity, embryotoxicity and/or teratogenicity have been observed in rats or rabbits following oral or dermal administration, in the absence of maternal toxicity. [Diethylene Glycol Monomethyl Ether]		
Carcinogenicity (ACGIH):	ACGIH A1: confirmed human carcinogen. [Benzene]		
Carcinogenicity (IARC):	IARC Group 1: carcinogenic to Humans. [Benzene]		
Carcinogenicity (NTP):	NTP Group 1: known to be a carcinogen. [Benzene]		
Carcinogenicity (IRIS):	Not available		
Carcinogenicity (OSHA):	Benzene is an OSHA known carcinogen.		
Other Considerations	No additional remark.		

Section 12. Ecological Information

Environmental Fate	Not available	Persistence/ Bioaccumulation Potential	Not available
BOD5 and COD	Not available	Products of Biodegradation	Not available
Additional Remarks	No additional remark.		

Section 13. Disposal Considerations

Waste Disposal	Preferred waste management priorities are: (1) recycle or reprocess; (2) incineration with energy recovery; (3) disposal at licensed waste disposal facility. Ensure that disposal or reprocessing is in compliance with government requirements and local disposal regulations. Consult your local or regional authorities.
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Section 14. Transport Information

TDG Classification	Currently: Fuel, aviation, turbine engine, 3, UN1863, PGII As of August 15, 2002: FUEL, AVIATION, TURBINE ENGINE, 3, UN1863, PGII	Special Provisions for Transport	Not applicable.
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Section 15. Regulatory Information

Other Regulations		This product is acceptable for use under the provisions of WHMIS-CPR. All components of this formulation are listed on the CEPA-DSL (Domestic Substances List).											
		All components of this formulation are listed on the US EPA-TSCA Inventory.											
		All components of this product are on the European Inventory of Existing Commercial Chemical Substances (EINECS).											
		This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.											
		Please contact Product Safety for more information.											
DSD/DPD (Europe)		Not evaluated.		HCS (U.S.A.) CLASS: Contains material which may cause cancer. CLASS: Flammable liquid having a flash point lower than 37.8°C (100°F). CLASS: Toxic. CLASS: Irritating substance. CLASS: Target organ effects.									
ADR (Europe) (Pictograms)		NOT EVALUATED FOR EUROPEAN TRANSPORT NON ÉVALUÉ POUR LE TRANSPORT EUROPÉEN.		DOT (U.S.A) (Pictograms) 									
HMIS (U.S.A.)		<table border="1"><tr><td>Health Hazard</td><td>2*</td></tr><tr><td>Fire Hazard</td><td>3</td></tr><tr><td>Reactivity</td><td>0</td></tr><tr><td>Personal Protection</td><td>H</td></tr></table>		Health Hazard	2*	Fire Hazard	3	Reactivity	0	Personal Protection	H	NFPA (U.S.A.) Health  Fire Hazard Reactivity Specific hazard	
Health Hazard	2*												
Fire Hazard	3												
Reactivity	0												
Personal Protection	H												
				Rating 0 Insignificant 1 Slight 2 Moderate 3 High 4 Extreme									

Section 16. Other Information

References	Available upon request. * Marque de commerce de Petro-Canada - Trademark
Glossary	ACGIH - American Conference of Governmental Industrial Hygienists ADR - Agreement on Dangerous goods by Road (Europe) ASTM - American Society for Testing and Materials (BOD5 - Biological Oxygen Demand in 5 days CAN/CGA B149.2 Propane Installation Code CAS - Chemical Abstract Services CEPA - Canadian Environmental Protection Act CERCLA - Comprehensive Environmental Response, Compensation and Liability Act CFR - Code of Federal Regulations CHIP - Chemicals Hazard Information and Packaging Approved Supply List COD5 - Chemical Oxygen Demand in 5 days CPR - Controlled Products Regulations DOT - Department of Transport DSCL - Dangerous Substances Classification and Labeling (Europe) DSD/DPD - Dangerous Substances or Dangerous Preparations Directives (Europe) DSL - Domestic Substance List EEC/EU - European Economic Community/European Union EINECS - European Inventory of Existing Commercial Chemical Substances EPCRA - Emergency Planning and Community Right to Know Act FDA - Food and Drug Administration FIFRA - Federal Insecticide, Fungicide and Rodenticide Act HCS - Hazardous Communication System HMIS - Hazardous Material Information System IARC - International Agency for Research on Cancer IRIS - Integrated Risk Information System LD50/LC50 - Lethal Dose/Concentration kill 50% LDLo/LCLo - Lowest Published Lethal Dose/Concentration NAERG'96 - North American Emergency Response Guide Book (1996) NFPA - National Fire Prevention Association NIOSH - National Institute for Occupational Safety & Health NPRI - National Pollutant Release Inventory NSNR - New Substances Notification Regulations (Canada) NTP - National Toxicology Program OSHA - Occupational Safety & Health Administration PEL - Permissible Exposure Limit RCRA - Resource Conservation and Recovery Act SARA - Superfund Amendments and Reorganization Act SD - Single Dose STEL - Short Term Exposure Limit (15 minutes) TDG - Transportation Dangerous Goods (Canada) TDLo/TCLo - Lowest Published Toxic Dose/Concentration TLm - Median Tolerance Limit TLV-TWA - Threshold Limit Value-Time Weighted Average TSCA - Toxic Substances Control Act USEPA - United States Environmental Protection Agency USP - United States Pharmacopoeia WHMIS - Workplace Hazardous Material Information System

For Copy of MSDS

Prepared by Product Safety - TAR on 12/3/2001.

Western Canada, telephone: 403-296-4158; fax: 403-296-6551
Ontario & Central Canada, telephone: 1-800-668-0220; fax: 1-800-837-1228
Quebec & Eastern Canada, telephone: 514-640-8308; fax: 514-640-8385

Data entry by Product Safety - JDW.

For Product Safety Information: (905) 804-4752

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.



Material Safety Data Sheet

WHMIS (Pictograms)	WHMIS (Classification)	Protective Clothing	TDG (pictograms)
	Not controlled		

Section 1. Chemical Product and Company Identification

Product Name	PETRO-CANADA SUPREME 5W-30, 10W-30, 10W-40, 20W-50 MOTOR OIL	Code	410-344, MOSP53 410-341, MOSP13 410-342, MOSP14 410-343, MOSP25
Synonym	Not available.	Validated on	8/31/2004.
Manufacturer	PETRO-CANADA P.O. Box 2844 Calgary, Alberta T2P 3E3	In case of Emergency	Petro-Canada: 403-296-3000 Canutec Transportation: 613-996-6666 Poison Control Centre: Consult local telephone directory for emergency number(s).
Material Uses	Supreme is designed for the lubrication of all gasoline, propane and CNG engines where the manufacturer recommends the use of API SM quality oils. SAE 5W-30 and 10W-30 grades also meet the requirements of ILSAC GF-4.		

Section 2. Composition and Information on Ingredients

			Exposure Limits (ACGIH)		
Name	CAS #	% (W/W)	TLV-TWA(8 h)	STEL	CEILING
Mixture of severely hydrotreated and hydrocracked base oil (petroleum) and other proprietary, non-hazardous additives.	Mixture	100	5 mg/m ³ (oil mist)	10 mg/m ³ (oil mist)	Not established
Manufacturer Recommendation	Not applicable				
Other Exposure Limits	Consult local, state, provincial or territory authorities for acceptable exposure limits.				

Section 3. Hazards Identification.

Potential Health Effects	Prolonged or repeated contact may cause skin irritation, defatting, drying and dermatitis. Not expected to cause more than slight skin or eye irritation. With its relatively low vapour pressure, this product is not expected to be inhaled in any appreciable quantity at ambient conditions. If heated to high temperatures or subjected to mechanical actions which produce vapours or mists, inhalation may cause respiratory tract irritation. Ingestion may produce a laxative effect. For more information refer to Section 11 of this MSDS.
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Section 4. First Aid Measures

Eye Contact	IMMEDIATELY flush eyes with running water for at least 15 minutes, keeping eyelids open. Seek medical attention.
Skin Contact	Remove contaminated clothing - launder before reuse. Wash gently and thoroughly the contaminated skin with running water and non-abrasive soap. Seek medical attention.
Inhalation	Evacuate the victim to a safe area as soon as possible. If the victim is not breathing, perform artificial respiration. Allow the victim to rest in a well ventilated area. Seek medical attention.
Ingestion	DO NOT induce vomiting because of danger of aspirating liquid into lungs. Seek medical attention.
Note to Physician	Not available

Section 5. Fire-fighting Measures

Flammability	May be combustible at high temperature.	Flammable Limits	Not available.
Flash Points	OPEN CUP: 223°C (433.4°F) (Cleveland)	Auto-Ignition Temperature	Not available
Fire Hazards in Presence of Various Substances	Low fire hazard. This material must be heated before ignition will occur.	Explosion Hazards in Presence of Various Substances	Do not cut, weld, heat, drill or pressurize empty container. Containers may explode in heat of fire.

Products of Combustion	Carbon oxides (CO, CO ₂), nitrogen oxides (NO _x), sulphur oxides (SO _x), calcium oxides (CaO _x), phosphorus compounds (PO _x), zinc oxides, boron oxides and molybdenum, smoke and irritating vapours as products of incomplete combustion.
Fire Fighting Media and Instructions	NAERG96, GUIDE 171, Substances (low to moderate hazard). If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (0.5 mile) in all directions; also, consider initial evacuation for 800 meters (0.5 mile) in all directions. Shut off fuel to fire if it is possible to do so without hazard. If this is impossible, withdraw from area and let fire burn out under controlled conditions. Withdraw immediately in case of rising sound from venting safety device or any discolouration of tank due to fire. Cool containing vessels with water spray in order to prevent pressure build-up, autoignition or explosion. SMALL FIRE: use DRY chemicals, foam, water spray or CO ₂ . LARGE FIRE: use water spray, fog or foam. For small outdoor fires, portable fire extinguishers may be used, and self contained breathing apparatus (SCBA) may not be required. For all indoor fires and any significant outdoor fires, SCBA is required. Respiratory and eye protection are required for fire fighting personnel.

Section 6. Accidental Release Measures

Material Release or Spill	Consult current National Emergency Response Guide Book (NAERG) for appropriate spill measures if necessary. Extinguish all ignition sources. Stop leak if safe to do so. Dike spilled material. Use appropriate inert absorbent material to absorb spilled product. Collect used absorbent for later disposal. Avoid contact with spilled material. Avoid contaminating sewers, streams, rivers and other water courses with spilled material. Notify appropriate authorities immediately.
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Section 7. Handling and Storage

Handling	Avoid contact with any sources of ignition, flames, heat, and sparks. Avoid skin contact. Avoid eye contact. Avoid inhalation of product vapours or mists. Empty containers may contain product residue. Do not pressurize, cut, heat, or weld empty containers. Do not reuse containers without commercial cleaning and/or reconditioning. Personnel who handle this material should practice good personal hygiene during and after handling to help prevent accidental ingestion of this product. Properly dispose of contaminated leather articles including shoes that cannot be decontaminated.
Storage	Store away from incompatible and reactive materials (See section 5 and 10). Keep container tightly closed. Store in dry, cool, well-ventilated area.

Section 8. Exposure Controls/Personal Protection

Engineering Controls	For normal application, special ventilation is not necessary. If user's operations generate vapours or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit. Make-up air should always be supplied to balance air removed by exhaust ventilation. Ensure that eyewash station and safety shower are close to work-station.
Personal Protection - The selection of personal protective equipment varies, depending upon conditions of use.	
Eyes	Eye protection (i.e., safety glasses, safety goggles and/or face shield) should be determined based on conditions of use. If product is used in an application where splashing may occur, the use of safety goggles and/or a face shield should be considered.
Body	Wear appropriate clothing to prevent skin contact. As a minimum long sleeves and trousers should be worn.
Respiratory	Where concentrations in air may exceed the occupational exposure limits given in Section 2 (and those applicable to your area) and where engineering, work practices or other means of exposure reduction are not adequate, NIOSH approved respirators may be necessary to prevent overexposure by inhalation.
Hands	Wear appropriate chemically protective gloves. When handling hot product ensure gloves are heat resistant and insulated.
Feet	Wear appropriate footwear to prevent product from coming in contact with feet and skin.

Section 9. Physical and Chemical Properties

Physical State and Appearance	Viscous liquid.	Viscosity	5W-30: 62.3 cSt @ 40°C (104°F), 10.6 cSt @ 100°C (212°F). VI=160 10W-30: 67.4 cSt @ 40°C (104°F), 10.5 cSt @ 100°C (212°F). VI=143 10W-40: 97.2 cSt @ 40°C (104°F), 14.1 cSt @ 100°C (212°F). VI=143 20W-50: 170 cSt @ 40°C (104°F), 19.0 cSt @ 100°C (212°F). VI=127
Colour	Light amber.	Pour Point	5W-30: -36°C (-33°F) 10W-30: -36°C (-33°F) 10W-40: -30°C (-22°F) 20W-50: -24°C (-11°F)
Odour	Mild petroleum oil like.	Softening Point	Not applicable.
Odour Threshold	Not available.	Dropping Point	Not applicable.
Boiling Point	Not available.	Penetration	Not applicable.

Density	0.8566 - 0.8775 kg/L @ 15°C (59°F).	Oil / Water Dist. Coefficient	Not available.
Vapour Density	Not available.	Ionicity (in water)	Not available
Vapour Pressure	Negligible at ambient temperature and pressure.	Dispersion Properties	Not available
Volatility	Non-volatile	Solubility	Insoluble in water.

Section 10. Stability and Reactivity

Corrosivity	Copper corrosion, 3h, 121°C (ASTM D0130): 1a		
Stability	The product is stable under normal handling and storage conditions.	Hazardous Polymerization	Will not occur under normal working conditions.
Incompatible Substances / Conditions to Avoid	Reactive with oxidizing agents and acids.	Decomposition Products	May release CO _x , H ₂ S, methacrylate monomers, alkyl mercaptans, smoke and irritating vapours when heated to decomposition.

Section 11. Toxicological Information

Routes of Entry	Skin contact, eye contact, inhalation, and ingestion.		
Acute Lethality	Acute toxicity information is not available for the product as a whole, therefore, data for some of the ingredients is provided below: Acute oral toxicity (LD50): >5000 mg/kg (rat). Acute dermal toxicity (LD50): >2000 mg/kg (rabbit). Acute inhalation toxicity (LC50): >2500 mg/m³/4h (rat).		
Chronic or Other Toxic Effects			
Dermal Route:	Prolonged or repeated contact may defat and dry skin, and cause dermatitis. Short-term exposure is expected to cause only slight irritation, if any.		
Inhalation Route:	With its relatively low vapour pressure, this product is not expected be inhaled in any appreciable quantity at ambient conditions. If heated to high temperatures or subjected to mechanical actions which produce vapours or mists, inhalation may cause respiratory tract irritation.		
Oral Route:	Ingestion of this product may lead to aspiration of the liquid, especially if vomiting occurs. This may result in chemical pneumonitis (inflammation of the lungs) and/or pulmonary edema (an accumulation of fluid in the lungs). May produce a laxative effect.		
Eye Irritation/Inflammation:	Short-term exposure is expected to cause only slight irritation, if any.		
Immunotoxicity:	Not available.		
Skin Sensitization:	Contact with this product is not expected to cause skin sensitization, based upon the available data and the known hazards of the components.		
Respiratory Tract Sensitization:	Contact with this product is not expected to cause respiratory tract sensitization, based upon the available data and the known hazards of the components.		
Mutagenic:	This product is not known to contain any components at >= 0.1% that have been shown to cause mutagenicity. Therefore, based upon the available data and the known hazards of the components, this product is not expected to be a mutagen.		
Reproductive Toxicity:	This product is not known to contain any components at >= 0.1% that have been shown to cause reproductive toxicity. Therefore, based upon the available data and the known hazards of the components, this product is not expected to be a reproductive toxin.		
Teratogenicity/Embryotoxicity:	This product is not known to contain any components at >= 0.1% that have been shown to cause teratogenicity and/or embryotoxicity. Therefore, based upon the available data and the known hazards of the components, this product is not expected to be a teratogen/embryotoxin.		
Carcinogenicity (ACGIH):	This product is not known to contain any chemicals at reportable quantities that are listed as Group A1 or A2 carcinogens by ACGIH.		
Carcinogenicity (IARC):	This product is not known to contain any chemicals at reportable quantities that are listed as Group 1, 2A, or 2B carcinogens by IARC.		
Carcinogenicity (NTP):	This product is not known to contain any chemicals at reportable quantities that are listed as carcinogens by NTP.		
Carcinogenicity (IRIS):	This product is not known to contain any chemicals at reportable quantities that are listed as carcinogens by IRIS.		
Carcinogenicity (OSHA):	This product is not known to contain any chemicals at reportable quantities that are listed as carcinogens by OSHA.		
Other Considerations	No additional remark.		

Section 12. Ecological Information

Environmental Fate	Not available	Persistence/Bioaccumulation Potential	Not available
BOD5 and COD	Not available.	Products of Biodegradation	Not available.
Additional Remarks	No additional remark.		

Section 13. Disposal Considerations

Waste Disposal	Spent/ used/ waste product may meet the requirements of a hazardous waste. Consult your local or regional authorities. Ensure that waste management processes are in compliance with government requirements and local disposal regulations.
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Section 14. Transport Information

TDG Classification	Not a hazardous material for transport according to the TDG Regulations. (Canada)	Special Provisions for Transport	Not applicable.
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Section 15. Regulatory Information

Other Regulations	This product is acceptable for use under the provisions of WHMIS-CPR. All components of this formulation are listed on the CEPA-DSL (Domestic Substances List).																							
	All components of this formulation are listed on the US EPA-TSCA Inventory.																							
	All components of this product are on the European Inventory of Existing Commercial Chemical Substances (EINECS).																							
	This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.																							
	Please contact Product Safety for more information.																							
DSD/DPD (Europe)	Not evaluated.		HCS (U.S.A.)	Does not meet the definitions of a health or physical hazard according to the OSHA - Hazard Communication Standard. (United States)																				
ADR (Europe) (Pictograms)	NOT EVALUATED FOR EUROPEAN TRANSPORT NON ÉVALUÉ POUR LE TRANSPORT EUROPÉEN.		DOT (U.S.A) (Pictograms)																					
HMIS (U.S.A.)	<table><tr><td>Health Hazard</td><td>1</td></tr><tr><td>Fire Hazard</td><td>1</td></tr><tr><td>Reactivity</td><td>0</td></tr><tr><td>Personal Protection</td><td>B</td></tr></table>		Health Hazard	1	Fire Hazard	1	Reactivity	0	Personal Protection	B	NFPA (U.S.A.)	<table><tr><td rowspan="2">Health</td><td>1</td><td>Fire Hazard</td><td>1</td></tr><tr><td>1</td><td>Reactivity</td><td>0</td></tr><tr><td colspan="4">Specific hazard</td></tr></table>		Health	1	Fire Hazard	1	1	Reactivity	0	Specific hazard			
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Fire Hazard	1																							
Reactivity	0																							
Personal Protection	B																							
Health	1	Fire Hazard	1																					
	1	Reactivity	0																					
Specific hazard																								
			Rating	0 Insignificant 1 Slight 2 Moderate 3 High 4 Extreme																				

Section 16. Other Information

References	Available upon request. * Marque de commerce de Petro-Canada - Trademark
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Glossary

ACGIH - American Conference of Governmental Industrial Hygienists
 ADR - Agreement on Dangerous goods by Road (Europe)
 ASTM - American Society for Testing and Materials
 BOD5 - Biological Oxygen Demand in 5 days
 CAN/CGA B149.2 Propane Installation Code
 CAS - Chemical Abstract Services
 CEPA - Canadian Environmental Protection Act
 CERCLA - Comprehensive Environmental Response, Compensation and Liability Act
 CFR - Code of Federal Regulations
 CHIP - Chemicals Hazard Information and Packaging Approved Supply List
 COD5 - Chemical Oxygen Demand in 5 days
 CPR - Controlled Products Regulations
 DOT - Department of Transport
 DSCl - Dangerous Substances Classification and Labeling (Europe)
 DSD/DPD - Dangerous Substances or Dangerous Preparations

IRIS - Integrated Risk Information System
 LD50/LC50 - Lethal Dose/Concentration kill 50%
 LDLo/LCLo - Lowest Published Lethal Dose/Concentration
 NAERG'96 - North American Emergency Response Guide Book (1996)
 NFPA - National Fire Prevention Association
 NIOSH - National Institute for Occupational Safety & Health
 NPRI - National Pollutant Release Inventory
 NSNR - New Substances Notification Regulations (Canada)
 NTP - National Toxicology Program
 OSHA - Occupational Safety & Health Administration
 PEL - Permissible Exposure Limit
 RCRA - Resource Conservation and Recovery Act
 SARA - Superfund Amendments and Reorganization Act
 SD - Single Dose
 STEL - Short Term Exposure Limit (15 minutes)
 TDG - Transportation Dangerous Goods (Canada)
 TDLo/TCLo - Lowest Published Toxic Dose/Concentration

Directives (Europe)
DSL - Domestic Substance List
EEC/EU - European Economic Community/European Union
EINECS - European Inventory of Existing Commercial Chemical Substances
EPCRA - Emergency Planning and Community Right to Know Act
FDA - Food and Drug Administration
FIFRA - Federal Insecticide, Fungicide and Rodenticide Act
HCS - Hazard Communication Standard
HMIS - Hazardous Material Information System
IARC - International Agency for Research on Cancer

TLM - Median Tolerance Limit
TLV-TWA - Threshold Limit Value-Time Weighted Average
TSCA - Toxic Substances Control Act
USEPA - United States Environmental Protection Agency
USP - United States Pharmacopoeia
WHMIS - Workplace Hazardous Material Information System

For Copy of MSDS

The Canadian Controlled Products Regulations (CPR) (Under the Hazardous Products Act, part of the WHMIS legislation) only apply to WHMIS Controlled (i.e., hazardous) products. Therefore, the CPR and the 3-year update rule specified therein do not apply to WHMIS Non-Controlled products. Although this is true, customarily Petro-Canada reviews and updates Non-Controlled product MSDS if a customer requests such an update. These Non-Controlled product updates are given a lower priority than Controlled products but are handled as soon as practicable. If you would like to verify if the MSDS you have is the most current, or you require any further information, please contact:

Internet: www.petro-canada.ca

Lubricants:

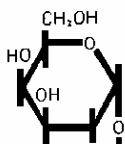
Western Canada, telephone: 1-800-661-1199; fax: (780) 464-9564
Ontario & Central Canada, telephone: 1-800-268-5850 and (905) 822-4222; fax: 1-800-201-6285
Quebec & Eastern Canada, telephone: 1-800-576-1686; fax: 800-201-6285

For Product Safety Information: (905) 804-4752

Prepared by Product Safety - TLM on 8/31/2004.

Data entry by Product Safety - RS.

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.



Poly-Drill Drilling Systems

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poly-drill.com



MATERIAL SAFETY DATA SHEET/FICHE SIGNALÉTIQUE

1. PRODUCT IDENTIFICATION

PRODUCT TRADE NAME(S): Poly Drill O.B.X.

WHMIS CLASSIFICATION: Non-regulated

TDG Classification: Non dangerous goods

DATE: November 17, 2004

A liquid polymer containing guar gum, mineral oil, vegetable oil, acrylamide copolymer and a surfactant: Evaluation of the ingredient(s) has found no ingredient(s) hazardous as per WHMIS regulations.

2. PHYSICAL DATA

Boiling Point: Not available

Specific Gravity: 0.9 g/cm

Solubility in Water: disperses in water(forms viscous, slippery solution).

pH: 3.8 (1% concentration)

Density (g/ml): Not available

Physical State: Liquid

Appearance and Odor: Brown. Odor slight.

3. FIRE AND EXPLOSION DATA

Flash Point (method used): (PMCC) greater than 100 C.

Conditions of flammability: Very low risk.

Hazardous combustion products: None known.

Upper and Lower flammable limits: Not available.

Extinguishing media: Carbon dioxide, dry chemicals, foam, in preference to water spray

4. REACTIVITY

Chemical stability: Stable under normal conditions.

Hazardous Polymerization: Will not occur.

Incompatible substances: Avoid strong oxidants such as liquid chlorine, concentrated oxygen, sodium or calcium hypo chloride.

Hazardous decomposition products: None known

5. HEALTH HAZARD DATA

TOXICITY RATING: Practically non-harmful.

Routes of Exposure and Effects:

SKIN: Slight irritant: prolonged contact may cause skin irritation or dermatitis in some individuals

EYE: No effects of exposure expected with the exception of possible irritation.

INHALATION: Due to low volatility of mineral distillates a small inhalation hazard exists.

INGESTION: can cause nausea, vomiting, cramps, diarrhea
Chronic exposure limits: None
Sensitization of product: Not suspected to be a sensitizer.
Teratogenicity: Not available.
Mutagenicity: Not available.
Carcinogenicity: None of the components of this product are listed as carcinogens by IARC and ACGIH

6. EMERGENCY AND FIRST AID PROCEDURES

SKIN: Wash exposed area with soap and water. Remove contaminated clothing. Launder contaminated clothing before re-use. If irritation or abnormalities persist, call a physician.

EYE: Immediately flush eyes with water for 15 minutes, lifting upper and lower lids occasionally. Get medical attention.

INHALATION: Remove to fresh air. If breathing becomes difficult, give oxygen and call a physician.

INGESTION: Do not induce vomiting: Call a physician immediately or poison control center. Never give anything by mouth to an unconscious person. Seek medical advice.

8. INDUSTRIAL HYGIENE CONTROL MEASURES

Respiratory Protection: None normally required.

Ventilation: If mist and/or vapors are present, use air purifying respirator or self-contained breathing apparatus, but this is rarely required.

Eye Protection: Safety glasses, if personally preferred

Gloves: Generally not necessary. Personal preference.

7. HANDLING AND USE PRECTIONS

Storage requirements: keep container closed when no in use. Store in a cool dry location away from oxidizing and reducing agents.

Waste Disposal: product should be disposed of in accordance with applicable local, Provincial and Federal regulations.

Steps must be taken if product is released or spilled: clean spill areas thoroughly to avoid hazardous slippery conditions.

8. TOXICOLOGICAL PROPERTIES

G50 Microtox Analysis prepared by HydroQual Laboratories, Calgary, AB--97/6/26 Test#970978:

Test Description	EC20	EC50	Pass/Fail
MTX	>91	>91	PASS

9. DEPARTMENT OF TRANSPORTATION INFORMATION

PROPER SHIPPING NAME/HAZARD CLASS MAY VARY BY PACKAGING, PROPERTIES, AND MODE OF TRANSPORTATION. TYPICAL PROPER SHIPPING NAMES FOR THIS PRODUCT ARE:

ALL TRANSPORTATION MODES: PRODUCT IS NOT REGULATED DURING TRANSPORTATION

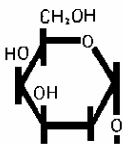
Shipping Name: Liquid Drilling Additive

Hazard Class: Not hazardous

Hazardous Substances: None
Cautionary Labeling: None required

10. OTHER INFORMATION

This information contained herein is given in good faith, but no warranty, expressed or implied is made



Poly-Drill Drilling Systems

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www.poly-drill.com

poly-drill.com



MATERIAL SAFETY DATA SHEET/FICHE SIGNALÉTIQUE

1. PRODUCT IDENTIFICATION

PRODUCT TRADE NAME: Poly-Drill 133-X
PRODUCT DESCRIPTION: LIQUID ANIONIC POLYMER
CHEMICAL DESCRIPTION: Polymer, Surfactant(s), Water, Hydrocarbon solvent
UPDATED: March 15, 2004

NFPA704M/HMIS RATING

HEALTH: 0/1	FLAMMABILITY: 1/1	REACTIVITY: 0/0	OTHER:	
0=Insignificant	1=Slight	2=Moderate	3=High	4=Extreme

2. COMPOSITION

A liquid polymer: Evaluation of the ingredient(s) has found no ingredient(s) hazardous as per WHMIS regulations. None of the substances in this product are hazardous.

3. PHYSICAL DATA

Flash Point: >100°C (PMCC)
Specific Gravity (@ 25°C.): 1.08
Solubility in Water: Emulsifiable
pH: 8.1 (1.0% solution)
Freeze Point: -10 °C (14 Degrees F)
Density (g/ml): 1.08 at 25 °C
Physical State: Liquid
Appearance: Blue liquid
Odor: Hydrocarbon

Note: These physical properties are typical values for this product.

4. FIRE AND EXPLOSION DATA

INCOMPATIBILITY: Avoid contact with strong oxidizers (eg. Chlorine, peroxides, chromates, nitric acid, perchlorates, concentrated oxygen, permanganates) which can generate heat, fires, explosions and the release of toxic fumes.

THERMAL DECOMPOSITION PRODUCTS: In the event of combustion CO, oxides of carbon (COx), oxides of nitrogen (NOx) may be formed. Do not breathe smoke or fumes. Wear suitable protective equipment.

5. FIRE FIGHTING MEASURES

FLASH POINT: >100°C (PMCC)

EXTINGUISHING MEDIA: Based on the NFPA guide, use dry chemical, foam, carbon dioxide or other extinguishing agent suitable for Class B fires. Use water to cool containers exposed to fire. For larger fires, use water spray or fog, thoroughly drenching the burning material.

UNSUITABLE EXTINGUISHING MEDIA:
Do not use water unless flooding amounts are available.

UNUSUAL FIRE AND EXPLOSION HAZARD: May evolve oxides of nitrogen (NO_x) under fire conditions.

6. HEALTH HAZARD DATA

EMERGENCY OVERVIEW:

CAUTION: May cause irritation to skin and eyes. Avoid contact with skin, eyes and clothing. Do not take internally.

Empty containers may contain residual product. Do not reuse container unless properly reconditioned.

PRIMARY ROUTE(S) OF EXPOSURE: Eye & Skin

EYE CONTACT: Can cause mild to moderate irritation

SKIN CONTACT: Can cause mild, short-lasting irritation

SYMPTOMS OF EXPOSURE: A review of available data does not identify any symptoms from exposure not previously mentioned.

AGGRAVATION OF EXISTING CONDITIONS: A review of available data does not identify any worsening of existing conditions.

7. EMERGENCY AND FIRST AID PROCEDURES

SKIN: Wash exposed area with soap and water. If irritation or abnormalities persist, call a physician.

EYE: Immediately flush eyes with water for 15 minutes, if irritation or abnormalities persist, call a physician.

INHALATION: Remove to fresh air. If breathing becomes difficult, give oxygen and call a physician.

INGESTION: Do not induce vomiting: Call a physician immediately.

CAUTION: If unconscious, having trouble breathing or in convulsions, do not induce vomiting or give water. Call for medical assistance immediately.

8. HANDLING, ACCIDENTAL RELEASE MEASURES & DISPOSAL CONSIDERATIONS

Storage: Keep container tightly closed when not in use.

DISPOSAL:

In Ontario, the waste class under Regulation 347 is: 233L

SMALL SPILLS:

Soak up spill with absorbent material. Place residues in a suitable, covered, properly labeled container. Wash affected area.

LARGE SPILLS:

Contain liquid using absorbent material, by digging trenches or by dyking. Reclaim into recovery or salvage drums or tank truck for proper disposal. Contact approved waste hauler for disposal of contaminated recovered material. Dispose of material in compliance with regulations indicated.

Dispose of wastes in an approved incinerator or waste treatment/disposal site, in accordance with all applicable regulations. Do not dispose of wastes in local sewer or with normal garbage.

ENVIRONMENTAL PRECAUTIONS

This product should NOT be directly discharged into lakes, ponds, streams, waterways or public water supplies.

As a non-hazardous liquid waste, it should be solidified with stabilizing agents (such as sand, fly ash, or cement) so that no free liquid remains before disposal to an industrial waste landfill. A non-hazardous liquid waste can also be incinerated in accordance with local, state, provincial and federal regulations.

9. INDUSTRIAL HYGIENE CONTROL MEASURES

OCCUPATIONAL EXPOSURE LIMITS:

This product does not contain any substance that has an established exposure limit.

Respiratory Protection: None normally required.

For large spills, entry into large tanks, vessels or enclosed small spaces with inadequate ventilation, a positive pressure, self-contained breathing apparatus is recommended.

Ventilation: General ventilation is recommended.

Eye Protection: Safety glasses, if personally preferred

Gloves: Generally not necessary. Personal preference. Examples of impermeable gloves available on the market are neoprene, nitrile, PVC, natural rubber, viton, and butyl (compatibility studies have not been performed).

If clothing is contaminated, remove clothing and thoroughly wash the affected area. Launder contaminated clothing before reuse.

10. TOXICOLOGICAL PROPERTIES

SENSITIZATION:

This product is not expected to be a sensitizer.

A "LC50-96" Pass/Fail Bioassay test. This test determines the lethality of a fluid on young aquatic organisms. The fluid fails if 50% or more of the animals are dead after 96 hours in the fluid.

96 hour static acute LC50 to Rainbow Trout = Greater than 1,000 mg/L

96 hour no observed effect concentration = 125 mg/L based on no mortality or abnormal effects

96 hour static acute LC50 to Sheepshead Minnow = Greater than 1,000 mg/L

96 hour no observed effect concentration = 1,000 mg/L (highest concentration tested) based on no mortality or abnormal effects.

96 hour static acute LC50 to Mysid Shrimp = 400 mg/L

96 hour no observed effect concentration = 180 mg/L based on no mortality or abnormal effects.

96 hour static acute LC50 to Daphnia Magna - 400 mg/L

96 hour no observed effect concentration = 56 mg/L (lowest concentration tested) based on no mortality or abnormal effects.

Microtoxicity

The Microtox bioassay has been established as the reference test for mud additive toxicity testing.

Test Method: Luminescent Bacteria, IC50@ 15 min

Reference: Appendix 1: Microtox Bioassay Procedure, Drilling Waste Management, Guide G50. 1993. Alberta Energy and Utilities Board, Calgary, AB, Canada.

Sample: Poly Drill 1330, sample #97324-1 for test #970723, 97/05/09 by D. Lintott

Preparation: Sample was diluted to 2 g/L, which formed thick, slightly cloudy liquid. The sample was then centrifuged for 1 hour.

Test Results:

SAMPLE	TREATMENT	%CTL	IC20%	IC50	RESULT
97324-1	None	N/A	14 (9-22)	>91	PASS

The following results are for a 1% aqueous solution of product.

CARCINOGENICITY:

None of the substances in this product are listed as carcinogens by the International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP) or the American Conference of Government Industrial Hygienists (ACGIH).

HUMAN HAZARD CHARACTERIZATION:

Based on our Hazard Characterization, the potential human hazard is: LOW

ENVIRONMENTAL HAZARD AND EXPOSURE CHARACTERIZATION:

Based on our Hazard Characterization, the potential environmental hazard is: LOW.

11. DEPARTMENT OF TRANSPORTATION INFORMATION

PROPER SHIPPING NAME/HAZARD CLASS MAY VARY BY PACKAGING, PROPERTIES, AND MODE OF TRANSPORTATION. TYPICAL PROPER SHIPPING NAMES FOR THIS PRODUCT ARE:

ALL TRANSPORTATION MODES: PRODUCT IS NOT REGULATED DURING TRANSPORTATION

Shipping Name: Liquid Drilling Additive

Hazard Class: Not hazardous

Cautionary Labeling: None required

14. OTHER INFORMATION

This information contained herein is given in good faith, but no warranty, expressed or implied is made

SECTION 1 – PRODUCT INFORMATION

Product Name: Propane
Trade Name: LPG (Liquified Petroleum Gas), LP-Gas
Chemical Formula: C₃H₈

WHMIS CLASSIFICATION
 Class A - Compressed Gas
 Class B, Division 1 - Flammable Gas

Supplier: Superior Propane Inc.
 1111 - 49th Avenue N.E.
 Calgary, AB T2E 8V2
Business: (403) 730-7500

Local Market
Emergency Number: _____
 (Non Medical)

Application and Use: Propane is commonly used as a fuel for heating, cooking, automobiles, forklift trucks, crop drying and welding and cutting operations. Propane is used in industry as a refrigerant, solvent and as a chemical feedstock.

SECTION 2 – HAZARDOUS INGREDIENTS

COMPONENTS	CAS NO.	% Volume (v/v)	LD50
Propane	74 -98-6	90% - 99%	Not Applicable
Propylene	115 -07-1	0% - 5%	Not Applicable
Ethane	74 -84-0	0% - 5%	Not Applicable
Butane and heavier hydro carbons	106 -97-8	0% - 2.5%	Not Applicable

Occupational Exposure Limit:

Based upon animal test data, the acute toxicity of this product is expected to be inhalation: 4 hour LC50 = 280,000 ppm (Rat).

Note: Composition is typical for HD-5 Propane per The Canadian General Standard Board CGSB 3.14 National Standard of Canada. Exact composition will vary from shipment to shipment.

SECTION 3 – CHEMICAL AND PHYSICAL DATA

Form: Liquid and vapour while stored under pressure.
Boiling Point: -42°C @ 1 atm.
Freezing Point: -188°C
Evaporation Rate: Rapid (Gas at normal ambient conditions).
Vapour Pressure: 1435 kPa (maximum) @ 37.8°C
Vapour Density: 1.52 (Air = 1)
Coefficient of Water/Oil Distribution: Not available.
pH: Not available.

Solubility in water: Slight, 6.1% by volume @ 17.8°C

Specific Gravity: 0.51 (water = 1)

Appearance/Odour: Colourless liquid and vapour while stored under pressure. Colourless and odourless gas in natural state at any concentration. Commercial propane has an odourant added, ethyl mercaptan, which has an odour similar to boiling cabbage.*

Odour Threshold: 4800 ppm

* With proper handling, transportation and storage, adding a chemical odourant such as eth-merc has proven to be a very effective warning device, but all odourants have certain limitations. The effectiveness of the odourant may be diminished by a person's sense of smell, by competing odours and by oxidation which may cause a potentially dangerous situation.

SECTION 4 – FIRE OR EXPLOSION HAZARD

Flash Point: -103.4°C
Method: Closed cup.
Flammable Limits: Lower 2.4%, Upper 9.5%
Auto Ignition Temperature: 432°C
Products Evolved Due To Heat Or Combustion: Carbon monoxide can be produced when primary air and secondary air are deficient while combustion is taking place.
Fire and Explosive Hazards: Explosive air-vapour mixtures may form if allowed to leak to atmosphere.
Sensitivity To Impact: No.
Sensitivity To Static Discharge: Yes.

Fire Extinguishing Precautions: Use water spray to cool exposed cylinders or tanks. Do not extinguish fire unless the source of the escaping gas that is fueling the fire can be turned off. Fire can be extinguished with carbon dioxide and/or dry chemical (BC). Container metal shells require cooling with water to prevent flame impingement and the weakening of metal. If sufficient water is not available to protect the container shell from weakening, the area will be required to be evacuated. If gas has not ignited, liquid or vapour may be dispersed by water spray or flooding.

Special Fire Fighting Equipment: Protective clothing, hose monitors, fog nozzles, self-contained breathing apparatus.

SECTION 5 – REACTIVITY DATA

Stability: Stable.
Conditions To Avoid: Keep separate from oxidizing agents. Gas explodes spontaneously when mixed with chloride dioxide.
Incompatibility: Remove sources of ignition and observe distance requirements for storage tanks from combustible material, drains and openings to building.

Hazardous Decomposition Products: Deficient primary and secondary air can produce carbon monoxide.

Hazardous Polymerization: Will not occur.

SECTION 6 – TOXICOLOGICAL PROPERTIES OF MATERIAL

ROUTES OF ENTRY:

Inhalation: Simple asphyxiant. No effect at concentrations of 10,000 ppm (peak exposures). Higher concentrations may cause central nervous system disorder and/or damage. Lack of oxygen may cause dizziness, loss of coordination, weakness, fatigue, euphoria, mental confusion, blurred vision, convulsions, breathing failure, coma and death. Breathing high vapour concentrations (saturated vapours) for a few minutes may be fatal. Saturated vapours may be encountered in confined spaces and/or under conditions of poor ventilation. Avoid breathing vapours or mist.

Skin and Eye Contact: Exposure to vapourizing liquid may cause frostbite (cold burns) and permanent eye damage.

Ingestion: Not considered to be a hazard.

Acute Exposure: The acute toxicity of this product is expected to be inhalation: 4 hour LC50=280,000ppm (Rat).

Chronic Exposure: There are no reported effects from long term low level exposure.

Sensitization to Product: Skin–unknown, Respiratory–unknown.

Occupational Exposure Limits: American Conference of Governmental Industrial Hygienists (ACGIH) lists as a simple asphyxiant. ACGIH TLV: 1000 ppm.

Carcinogenicity, Reproductive Toxicity, Teratogenicity, Mutagenicity: No effects reported.

SECTION 7 – PREVENTIVE MEASURES

Eyes: Safety glasses, are recommended when transferring product.

Skin: Insulated gloves required if contact with liquid or liquid cooled equipment is expected. Wear gloves and long sleeves when transferring product.

Inhalation: Where concentration in air would reduce the oxygen level below 18% air or exceed occupational exposure limits in section 6, self-contained breathing apparatus is required.

Ventilation: Explosion proof ventilation equipment required in confined spaces.

SECTION 8 – EMERGENCY AND FIRST AID PROCEDURES

FIRST AID:

Eyes: Should eye contact with liquid occur, flush eyes with lukewarm water for 15 minutes. Obtain immediate medical care.

Skin: In case of “Cold Burn” from contact with liquid, immediately place affected area in lukewarm water and keep at this temperature until circulation returns. If fingers or hands are frostbitten, have the victim hold his hand next to his body such as under the armpit. Obtain immediate medical care.

Ingestion: None considered necessary.

Inhalation: Remove person to fresh air. If breathing is difficult or has stopped, administer artificial respiration. Obtain immediate medical care.

SPILL OR LEAK:

Eliminate leak if possible.

Eliminate source of ignition.

Ensure cylinder is upright.

Disperse vapours with hose streams using fog nozzles. Monitor low areas as propane is heavier than air and can settle into low areas. Remain upwind of leak. Keep people away. Prevent vapour and/or liquid from entering into sewers, basements or confined areas.

SECTION 9 – TRANSPORTATION, HANDLING AND STORAGE

- Transport and store cylinders and tanks secured in an upright position in a ventilated space away from ignition sources (so the pressure relief valve is in contact with the vapour space of the cylinder or tank).
- Cylinders that are not in use must have the valves in the closed position and be equipped with a protective cap or guard.
- Do not store with oxidizing agents, oxygen, or chlorine cylinders.

- Empty cylinders and tanks may contain product residue. Do not pressurize, cut, heat or weld empty containers.
- Transport, handle and store according to applicable federal and provincial codes and regulations.

Transportation of Dangerous Goods (TDG)

- TDG Classification: Flammable Gas 2.1
- TDG Shipping Name: Liquefied Petroleum Gas (Propane)
- TDG Special Provisions: 56, 90, 102
- PIN Number: UN1075

SECTION 10 – PREPARATION

Superior Propane Inc., Regulations & Safety Department. (403) 730-7500 Date prepared: November 2001.
Supersedes: September 1999.

The information contained herein is believed to be accurate. It is provided independently of any sale of the product. It is not intended to constitute performance information concerning the product. No express warranty, implied warranty of merchantability or fitness for a particular purpose is made with respect to the product information contained herein.



NWT SPILL REPORT

(Oil, Gas, Hazardous Chemicals or other Materials)

24 – Hour Report Line
Phone: (867) 920-8130
Fax: (867) 873-6924

A Report Date and Time	B Date and Time of spill (if known)	C ☐ Original Report ☐ Update no. _____	Spill Number
D Location and map coordinates (if known) and direction (if moving)			
E Partly responsible for spill			
F Product(s) spilled and estimated quantities (provide metric volumes/weights if possible)			
G Cause of spill			
H Is spill terminated? ☐ yes ☐ no	I If spill is continuing, give estimated rate	J Is further spillage possible? ☐ yes ☐ no	K Extent of contaminated area (in square meters if possible)
L Factors effecting spill or recovery (weather conditions, terrain, snow cover, etc.)		M Containment (natural depression, dikes, etc.)	
N Action, if any, taken or proposed to contain, recover, clean up or dispose of product(s) and contaminated materials			
O Do you require assistance? ☐ no ☐ yes, describe:		P Possible hazards to person, property, or environment; eg: fire, drink water, fish or wildlife	
Q Comments or recommendations		FOR SPILL LINE USE ONLY Lead agency Spill significance Lead Agency contact and time Is this file now closed? ☐ yes ☐ no	
Reported by	Position. Employer, Location		Telephone
Reported to	Position. Employer, Location		Telephone

ADRIANA

RESOURCES INC.

May 7, 2007

Phyllis Beaulieu
Manager of Licensing
Nunavut Water Board (NWB)
P.O. Box 119
Gjoa Haven, NU Canada X0B 1J0

Dear Ms. Beaulieu:

**Re: Uranium Exploration Plan
NWB License No. 2BE-MCG0608**

Introduction

5050 Nunavut Ltd., a wholly owned subsidiary of Adriana Resources Inc. holds NWB License 2BE-MC0608 for the use of water and disposal of waste during camp activities and exploration drilling operations at the McGregor Lake Property and All Night Lake Property located on the Crown Land and Inuit Owned Land Parcels (CO-52, CO-53, CO-60, CO 61 & CO-62) on NTS Map Sheets No. 86J, 86O & 86N. The permit was issued to help advance the company's mineral exploration for nickel, copper, platinum, palladium (PGE) and uranium in this area. The project consists of 91 claims comprising 230,001 acres in three areas i.e., All Night Lake, McGregor Lake, and UNAD Joint Venture.

During 2006, Adriana Resources Inc. did not establish its own camp at McGregor Lake. Field personnel stayed in the Mouse Lake camp which was permitted and operated by UNOR Inc. and Adriana shared the cost of camp and logistics. No exploratory drilling was carried out in 2006.

Based on the 2005-06 fieldwork results, the company considered the following three promising areas for further exploration work in 2007:

1. McGregor Lake south – for nickel, copper and PGE
2. All Night Lake Area – for uranium
3. Tabb lake Area – for uranium

For the 2007 exploration program, Adriana Resources Inc. has established its own camp by upgrading the existing INCO camp at McGregor Lake. Drilling for nickel copper and PGE commenced on April 16, 2006. This 2000 m drill program includes 3 boreholes to a depth of 600 to 800 m. These boreholes are located approximately one kilometer south of McGregor Lake (Figure 1).

The uranium exploration program will commence during the first week of July 2007 and includes 2000 m of core drilling in the above mentioned target areas. Locations of proposed boreholes in the Tabb Lake area are shown on Figure 2, of which initially four or five boreholes will be drilled with a depth range of 200-250m. If required, 2 boreholes will be drilled on the adjacent joint venture (UNAD) claims with UNOR Inc. Locations of proposed boreholes for All Night Lake area are shown on Figure 3, of which initially six or seven boreholes will be drilled with a depth range of 150 to 200 m.

Uranium Exploration Plan

The following uranium exploration plan is submitted to address the environmental and water issues related to uranium exploratory drilling. As required by Part F of our License, this plan is based on the Mineral Exploration Guidelines for Saskatchewan, 2005.

Drilling Operations

1. The uranium exploration drill program will start in the first week of July and no ice drilling will be carried out.
2. Core Drilling (NQ size) will be carried out using a Boyles 37 drill rig supplied and operated by Major Drilling Group International Inc.
3. Approximate location of boreholes is provided on Figure 2 (Tabb Lake area) and Figure 3 (All Night Lake area) attached with this plan.
4. No borehole will be located within 100 m of a water body or water course.
5. No clearing is involved in drill site preparation.
6. The drill site footprint will not exceed an area of 20m by 20m and minimum distance of 100 m will be kept between the drill site footprint and the nearest water body.
7. A minimum distance of 100 m will be maintained between the drill site area and any water body in the vicinity.
8. The drill rig will be leveled using timbers and no soil stripping is involved in the drill site preparation.
9. Where possible, all efforts will be used to prevent drill mud, return water, and cuttings (sludge) from running uncontrolled from the drill site or to within 100 m of a water body or water course. If required, appropriate erosion control methods will be implemented.
10. Where possible, biodegradable mud and non-toxic drill additives are being used for the copper nickel, PGE drill program, and will also be used for uranium program.

11. Drill mud solids or cuttings with uranium concentration greater than 0.05 percent will be collected and disposed of down the drill hole and sealed.
12. Any drill hole that encounters mineralization with a uranium content greater than 1.0% over a length >1 meter, and with a meter-percent concentration >5.0, will be sealed by grouting over the entire length of the mineralization zone and not less than 10 meters above or below each mineralization zone.
13. All artesian drill holes will be reported to NWB within 30 days of its discovery. All artesian drill holes will be sealed to prevent discharge to the environment.

Core Storage

1. Core storage areas will be located a minimum of 100 meters from the high waterline of all the water bodies in the vicinity.
2. All core will be stored in standard core boxes and each box will be identified with weatherproof labels.
3. Adriana Resources Inc. will be responsible for all core drilled and if the property is sold or reassigned the new operator will be responsible for all core.
4. Gamma levels in the core storage area, measured at 1 meter from surface of the storage area will be reduced to 1.0 μSv and in no instance will the level be allowed to exceed 2.5 μSv . Instruments that measure radiation in counts per second will be converted to μSv according to the specification of that instrument.

Reclamation

Adriana Resources Inc. recognizes that reclamation is an integral part of exploration and has developed a plan to return the disturbed areas to an acceptable natural and productive state. The key element of the plan is minimizing impacts and avoiding surface disturbances which will help in reducing reclamation requirements and costs for the program.

14. Reclamation of each drill site will be carried out by removing all infrastructures, facilities, and waste from each drill site.
15. The drill rig will be leveled using timbers and no soil stripping is involved in the drill site preparation.
16. In a location where there is a reasonable chance of erosion, appropriate erosion control methods like soil stabilization through berms, water and mud collection sumps, recirculation of drill fluids, and placing slash material will be implemented.

5050 Nunavut Limited (a wholly owned subsidiary of Adriana Resources Inc.) will ensure that the above-mentioned measures and all other measures mentioned in our License are implemented to the satisfaction of Nunavut Water Board.

If you have any question or concern regarding this plan, please do not hesitate to call me at McGregor Lake camp at 1 877-598-6386 or 604-629-0250

Yours truly,

A handwritten signature in blue ink, appearing to read 'Afzaal Pirzada', with a stylized flourish at the end.

Afzaal Pirzada, P.Geo.
Project Manager
Adriana Resources Inc.

Figure 1
Adriana Resources, 2007 MIE Drill Program [For Ni, Cu, PGE]

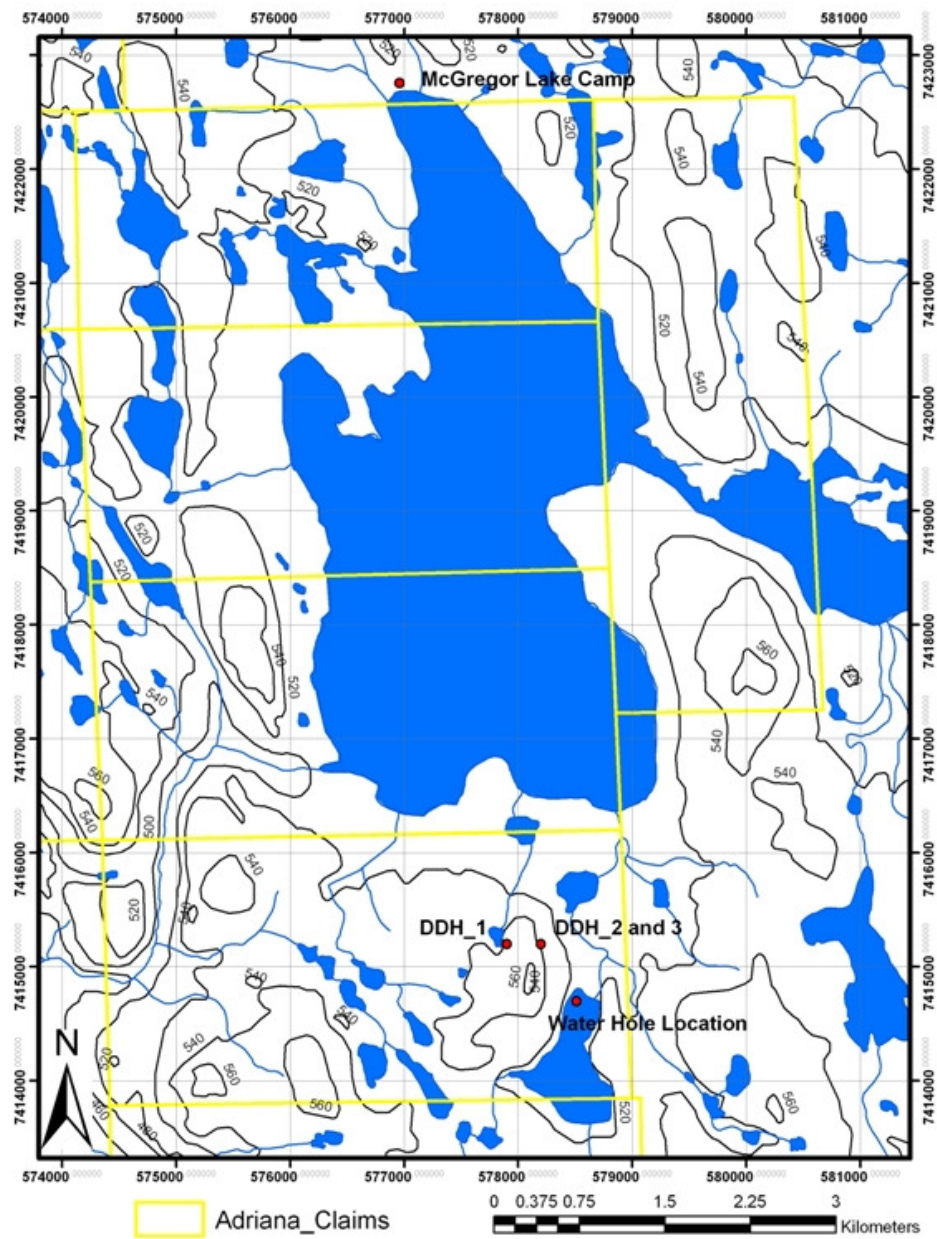


Figure 2
Adriana Resources, 2007 BVU Drill Program [For Uranium]

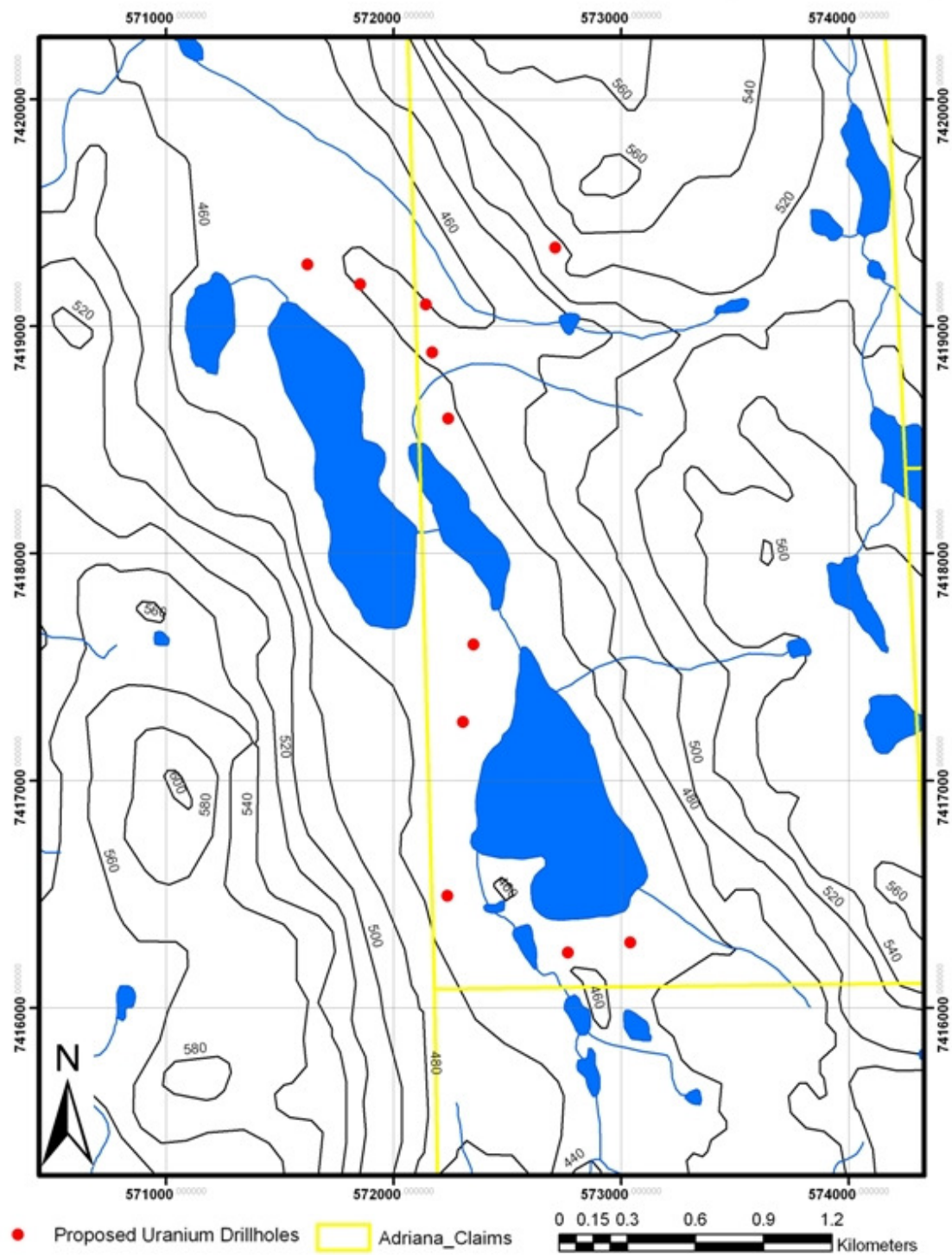
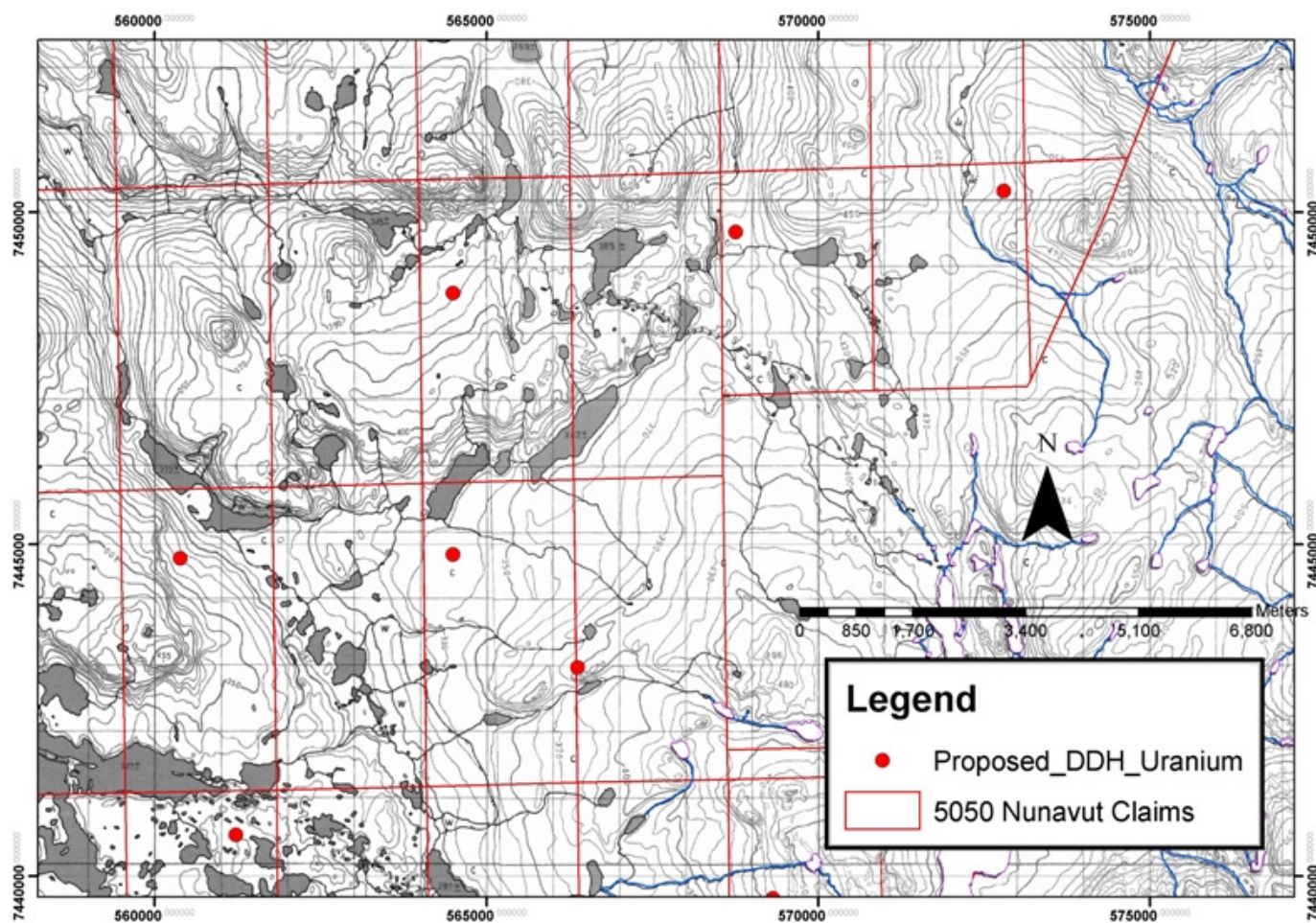


Figure 3
Proposed Borehole Location - All Night Lake Area



**Government of Nunavut
Department of Environment
Environmental Protection Division**

Request for Territorial Identification Number

Hazardous Waste Generator # NUG 100022

Please complete this questionnaire, as accurately as possible, by providing the information requested below. This information is to be submitted –preferably in electronic format –to: Manager, Pollution Control, Box 1000, Stn. 1360, Iqaluit, NU. X0A0H0. e-mail: reno@cJov.nu.ca.

The purpose of this questionnaire is to ensure that the Department of Environment is able to track the movement of hazardous waste in Nunavut and further, is assured that the agency/firm/company/individual in possession of, offering for transport, or receiving hazardous waste, is able to manage that waste in a manner which complies with current environmental acts, regulations, guidelines and standards of practice. **Please refer to the attached *Environmental Guideline for the General Management of Hazardous Waste* for additional details.**

Generator numbers will not be issued until the questionnaire has been completed to the satisfaction of the Department of Environment. For those companies who have already been issued with Generator Numbers, you are required to fill out this questionnaire and return it to the Department of Environment as soon as possible.

1. Company name:

5050 Nunavut Limited (subsidiary of Adriana Resources Inc.)

2. Mailing address:

Suite 1818 – 701 West Georgia Street, Vancouver, British Columbia, V7Y 1C6
Phone: 604-629-0250, Fax: 604-629-0923

3. Site location:

McGregor Lake (Map Sheet No. 86J, 86O, 86N)
Inuit Land Parcel No. CO 52, 53, 60, 61, & 62
Lat. 115° 15' 44" W Long. 66° 51' 30" N

4. Company contact (include title):

Afzaal Pirzada, P.Geo. (Project Manager)
Phone: 604-629-0250, Fax: 604-629-0923
Email: apirzada@adrianaresources.com

5. Company official (include title):

Gordon Addie (President)
Phone: 604-629-0250, Fax: 604-629-0923
Email: gaddie@adrianaresources.com

6. Type of business:

Mineral Exploration and Mining

7. Type of Waste Generated.

- Provide name and description of each site from which waste is intended to be removed:
McGregor Lake camp and various borehole locations in the area.
- Provide a description of the waste, proper shipping name, TDGR Product Identification Number and where applicable, the process resulting in the production of the waste.
The following hazardous waste is expected form the drilling and camping exploration activities:
 - Waste oil, greases (Class 3.1 TDG)
 - Antifreeze (Class 9.1 TDG)
 - Calcium or sodium chloride salt (Class 9.1 TDG)
 - Lead acid batteries (Class 8 TDG)
 - Cleaners (Class 9.1 TDG)
 - There is a chance of encountering uranium in the drill cores (Class 7 TDG) for which Canadian Nuclear Safety Commission will be consulted and “Canadian Guidelines for the Management of Naturally Occurring Radioactive Materials (NORM)” will be used as guiding document. For the long term storage of drill core, radiation level will be maintained as per NORM. In practice it is anticipated that the major uranium intersections will be transported to the Saskatchewan Research Council (SRC) Geoanalytical laboratories for testing and storage at their nuclear materials storage facility. The transportation of samples will be carried out as per NORM Guidelines.
- Is this a one time only generation or will your company be generating hazardous waste on a regular basis? If so, how often and what types of waste do you anticipate generating?
The exploration work period of operation will be: March – May (spring break up), June-September (fall freeze-up) and October – November. The above listed waste will be generated three to four times in a year.

8. Emergency Response/Management:

- Do you have a spill/emergency plan for accidents involving the hazardous material under your control? If so, please provide a copy (preferably electronic) to DOE.

Yes, this plan will be part of our camp permitting. The copy will be provided before start of the camp.

- If not, is your company prepared to manage emergencies involving this material? How?
- Is the management of the hazardous waste in your possession being undertaken by a third party?

No.

- If yes, please provide the name of that firm as well as a company contact name, phone number and address. Briefly describe that firm's experience in managing hazardous waste.

9. Intended carrier (if applying for a number in general anticipation of shipping hazardous waste at an unspecified time, please provide this information at a later date):

This information will be provided later, the number is being applied in general anticipation of shipping hazardous waste at an unspecified time.

- Please include full name, company location, address, contact person and number, provincial/territorial ID number and mode ⁽⁵⁾ of transport (ship, rail, road, air).
- Is the carrier capable of managing this hazardous material in the event of a spill or other emergency?
- Is this carrier a recognized and reputable firm capable of managing the hazardous material being consigned to them?
- For how long has this carrier been in business?

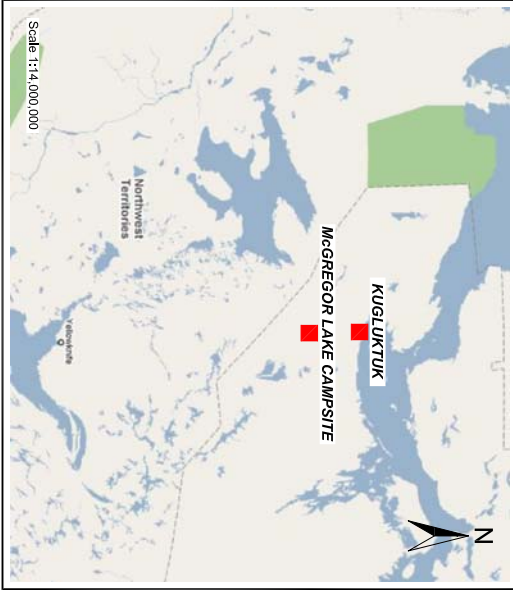
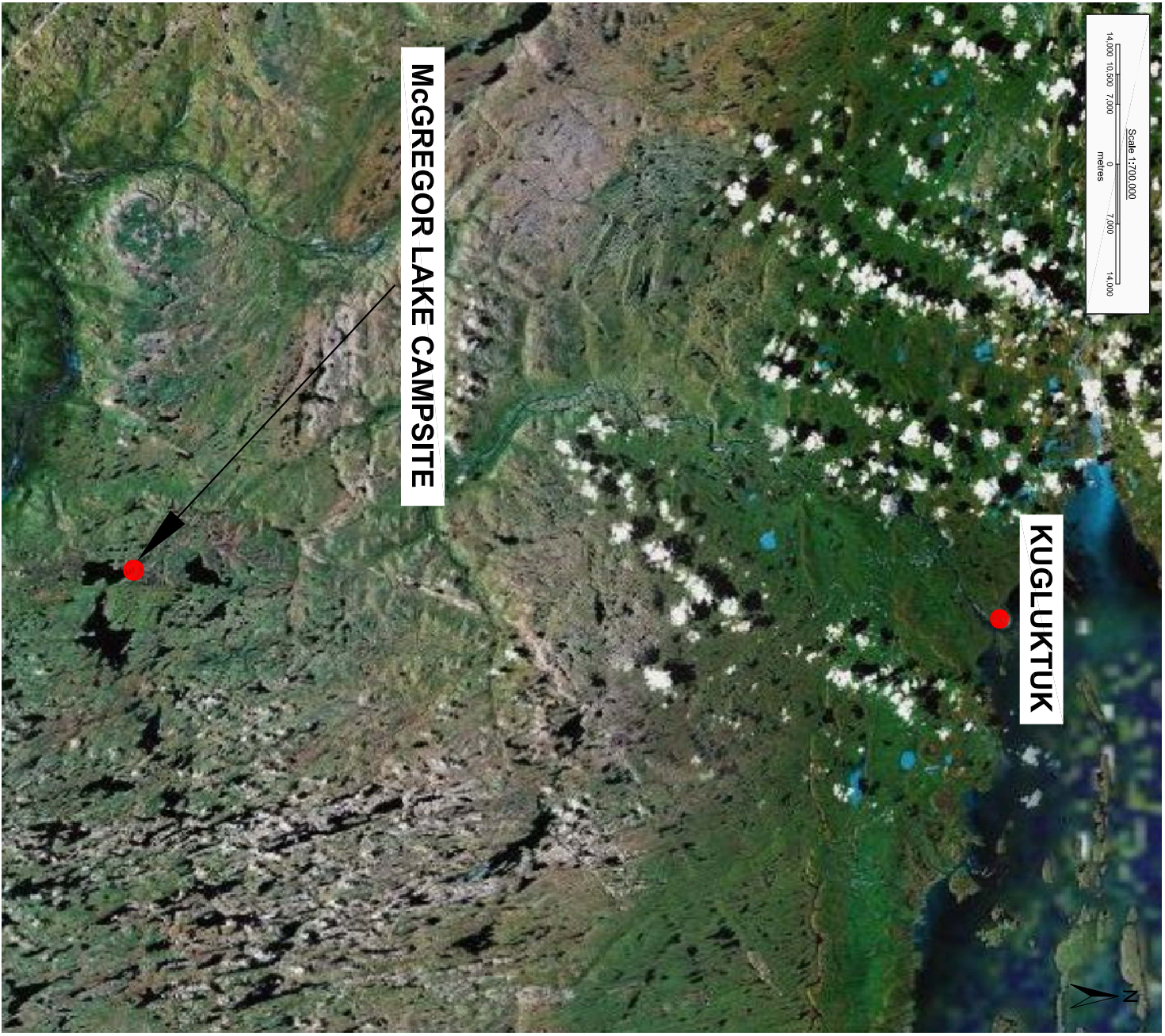
10. Intended Receiver (if applying for a number in general anticipation of shipping hazardous waste at an unspecified time, please provide this information at a later date):

This information will be provided later, the number is being applied in general anticipation of shipping hazardous waste at an unspecified time.

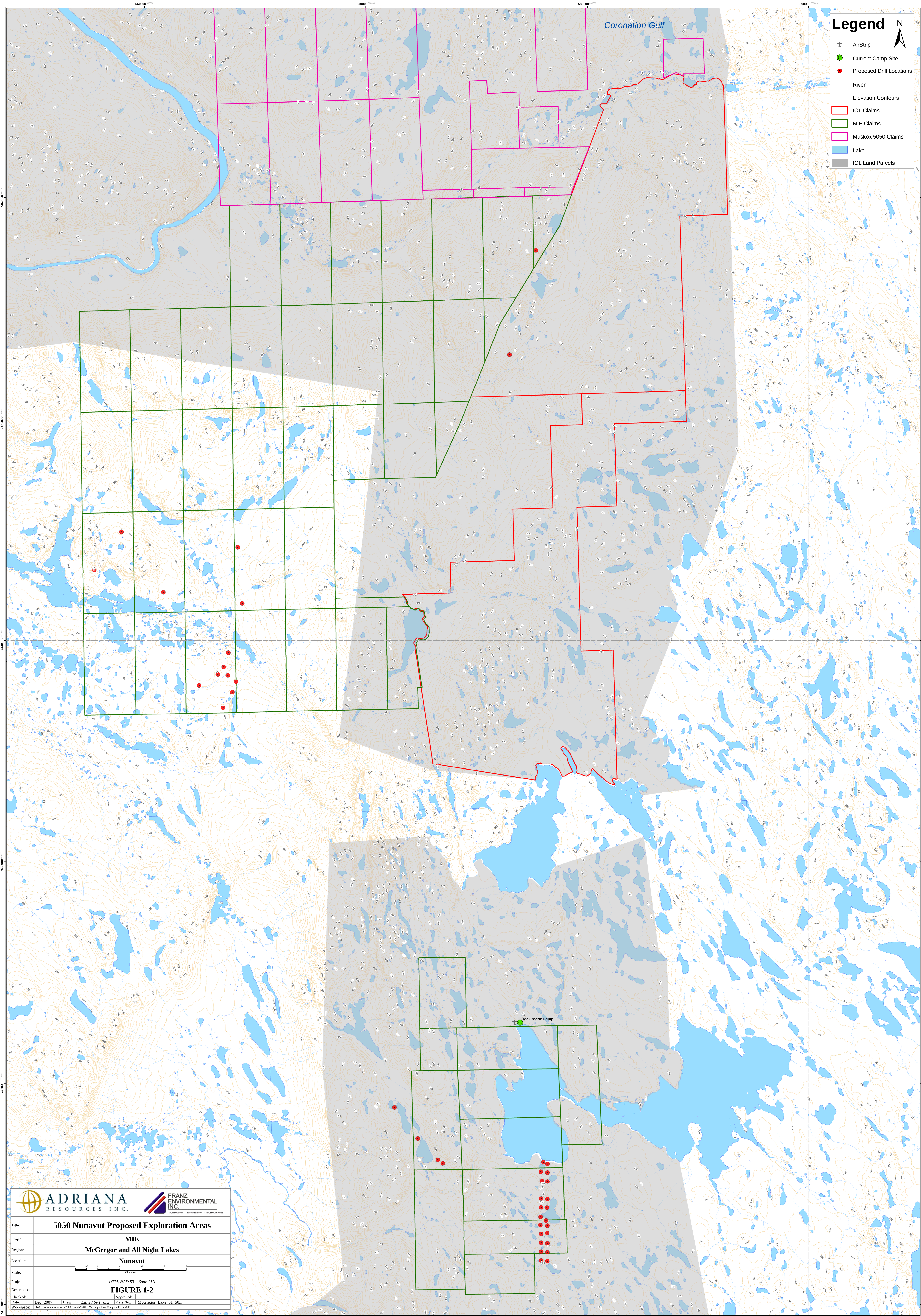
- Please include full name of company, location, address, contact person, telephone number, e-mail address and Provincial/Territorial ID number.
- Is this receiver a recognized and reputable firm capable of managing the hazardous material being consigned to them?
- For how long has this receiver been in business?



Species sighted: Caribou, Fox, Wolf, Bear, Wolverine, Other (describe) Number of Individuals: If < than 10; record actual #. If > than 10 record approximate #. If no individuals were spotted for the day; record zero. Activity of Individuals: sleeping, grazing, standing, walking, running, grooming, etc Location from camp: North, East, South, West



Title:		SITE LOCATION	
Project:		CAMPSITE PERMIT RENEWAL AND AMENDMENT	
Client:		5050 NUNAVUT LTD.	
 FRANZ ENVIRONMENTAL INC. CONSULTING • ENGINEERING • TECHNOLOGIES		Date:	
		DECEMBER 2007	
		FIGURE 1-1	



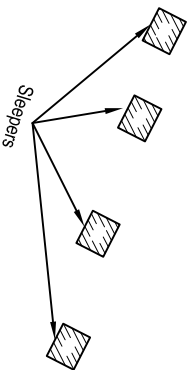
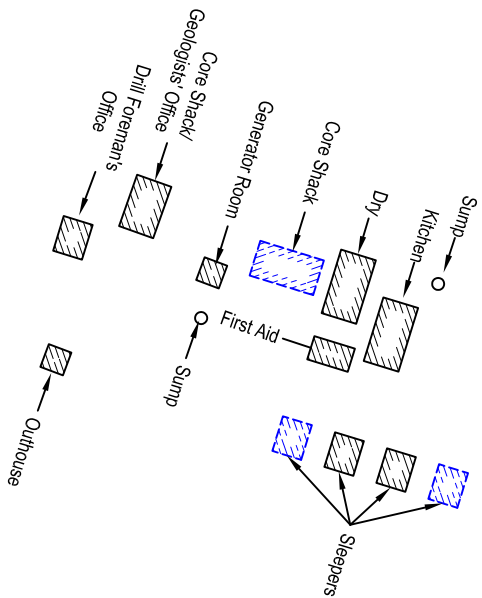
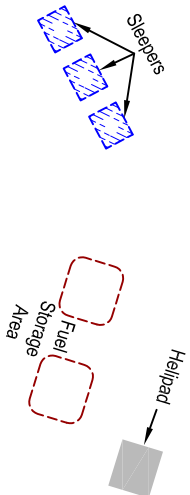
Legend

- AirStrip
- Current Camp Site
- Proposed Drill Locations
- River
- Elevation Contours
- IOL Claims
- MIE Claims
- Muskox 5050 Claims
- Lake
- IOL Land Parcels

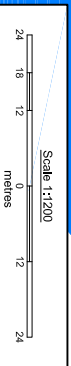


Title:	5050 Nunavut Proposed Exploration Areas		
Project:	MIE		
Region:	McGregor and All Night Lakes		
Location:	Nunavut		
Scale:			
Projection:	UTM, NAD 83 - Zone 11N		
Description:	FIGURE 1-2		
Checked:	Dec. 2007	Drawn:	Edited by Franz
Date:	Dec. 2007	Drawn:	Approved: McGregor Lake 01_50K
Workspace:	1408 - Adriana Resources 2008 Project/0111 - McGregor Lake Campsite Permit/05		

Seasonal Ice - Airstrip
(Exact location to be determined)



McGregor Lake



LEGEND

- Building - Existing
- Building - Proposed
- Building - Not in Use
- River/Lake
- Helipad

Title:	McGREGOR LAKE CAMPSITE	
Project:	CAMPSITE PERMIT RENEWAL AND AMENDMENT	
Client:	5050 NUNAVUT LTD.	



FRANZ ENVIRONMENTAL INC.

CONSULTING • ENGINEERING • TECHNOLOGIES

Date: DECEMBER 2007

FIGURE 1-3