



Rescan™ Environmental Services Ltd.

Sixth Floor, 1111 West Hastings Street
Vancouver, British Columbia
Canada, V6E 2J3
Telephone: (604) 689-9460
Facsimile: (604) 687-4277
e-mail: rescan@rescan.com

908 – 5201, 50th Avenue
Yellowknife, Northwest Territories
Canada, X1A 3S9
Telephone: (867) 920-2090
Facsimile: (867) 920-2015

May 30, 2007

Jennifer Wilman
Manager-Research Liaison
Nunavut Research Institute
Box 1720, Iqaluit, NT X0A 0H0

Attention: Jennifer Wilman

Dear: Jennifer

Re: Bathurst Inlet Port and Road Project 2007 Baseline Studies

Please find the attached application for a Scientific Research Licence (Land, Freshwater & Marine Based Research) to complete surveys this summer to be being carried out in support of an Environmental Assessment of the Bathurst Inlet Port and Road Project. These additional studies are required to fulfill the EIS guidelines.

The Project has already been screened by NIRB and is in the process of going under a Part 5 review under the Article 12 of the NLCA. Therefore the project falls under 'Exemptions' as stated below in section 12.10.2 of the NLCA:

12.10.2 Notwithstanding Section 12.10.1, where a project proposal has been referred for review pursuant to Part 5 or 6, approvals or licences for exploration or development activities related to that project may be issued if:

- (a) the activity falls within Schedule 12-1; or*
- (b) the activity can, in the judgement of NIRB, proceed without such a review.*

In addition to the requirements provided in the application we have provided additional information requested previously by NIRB for an environmental screening of a similar application. Attached are:

- Detailed timeline for all proposed research activities (Table 1)
- Detailed summary of research protocols



Please do not hesitate to contact me if you require further information.

Yours truly,

RESCAN ENVIRONMENTAL SERVICES LTD.

per:



François Landry, M.Sc., R.P. Bio.
Project Manager



Nunavut Research Institute
Nunavummi Qaujisaqtulirijkkut

Box 1720, Iqaluit, NT X0A 0H0
phone: (867) 979-7279 fax: (867) 979-7109
email: OH jwilman@nac.nu.ca
Web Site www.nri.nu.ca

SCIENTIFIC RESEARCH LICENCE APPLICATION

(Land, Freshwater & Marine Based Research)

This application fulfills the requirements for NIRB environmental screening

SECTION 1: APPLICANT INFORMATION	Phone: (604) 689-9460
1. Applicant's full name and mailing address: Rescan Environmental Services Ltd. 6 th Floor, 1111 West Hastings Street Vancouver, British Columbia V6E 2J3	Fax: (604) 687-4277
	E-mail: Flandry@rescan.com
2. Field Supervisor (address, if different from above): François Landry	Phone: Sat. phone:
3. Other Personnel list (name and position): A. Harwood, Fisheries Biologist K. Morin, Senior Geochemist N. Hutt, Chemist K. Morgenstern, Environmental Scientist N. Tennant, Environmental Scientist T. Robb, Aquatic Biologist K. Vinter, Aquatic Biologist T. Perzoff, Senior Plant Ecologist	

Additional field assistants will be provided by Local Inuit Assistants (accounts for 12 of person days)

Total # of personnel: 8 not including field assistants

Total # of person days: 36

SECTION 2: AUTHORIZATION NEEDED

4. List the organisations you will contact for necessary authorizations associated with the project.

Department of Fisheries and Oceans (licence pending)
Government of Nunavut- Department of Environment (licence pending)

5. List the active permits, licences, or rights related to the project and their expiry date:

Not applicable

SECTION 3: PROJECT PROPOSAL DESCRIPTION

6. Proposed project title: 2007 Bathurst Inlet Port and Road Project Baseline Studies

7. Project duration:

Period of operation: June 17th 2007 to September 15th 2007

8. Location(s) of data collection:

- Land Status Types: Crown, Commissioners', Inuit Owned Surface Lands, Inuit Owned Sub-Surface Lands, & Other
- Please ensure that maps of the project area are attached (1:50 000, 1:250 000)

Location Name	Region	Latitude (north)	Longitude (west)	NTS Map sheet #	Land Status
Port to Contwoyto Lake Road: Port- 0 km Camp Contwoyto Lake- 211 km	Kitikmeot	66°50'N 65°30'N	108°00'W 110°40'W	076K16 076E10	39% (82 km) Inuit owned (Kitikmeot), 61% (129 km) Crown Land

For additional sites, attach a separate page

NON-TECHNICAL PROJECT PROPOSAL SUMMARY

9. See attached page for non-technical summary.

SECTION 4: MATERIAL USE

10. List equipment (including drills, pumps, aircrafts, etc.):

Rescan staff will use the accommodations and infrastructure already in place by Sabina Silver operators of the Hackett River camp. Any helicopter support required will be provided by Matrix Solutions Inc.

Equipment type and number	Size-dimensions	Proposed use
Aluminium skiff	14 ft long	Water and sediment sampling at proposed port
Trimble PF Power Differential Global Positioning System (DGPS), 200 kHz SeaMax depth sounder, and a Trimble TSC1 datalogger		Collect Global Positioning System (GPS)-linked depth records at proposed port
Manual depth measurements		Collect shoreline depth measurements
STD-12 Conductivity, Temperature and Depth Probe		Collect conductivity and temperature at surface to the sea bottom
YSI Dissolved Oxygen Probe		Vertical profile of sea water dissolved oxygen
Go Flo Sampler		Seawater samples for physical variables and concentrations of dissolved anions, nutrients, total organic carbon, and dissolved and total metals

Marine Secchi disk	30 cm diameter	Measure sea water clarity
Petite Ponar grab sampler		Collect marine sediment samples
Manual water sampling equipment	5 L ; 2 ft long	Collect stream water samples
Manual sediment sampling equipment	30 cm x 30 cm x 30 cm	Collect stream sediment samples
Temperature loggers	5 cm x 3 cm x 3 cm	Monitor ground temperature
Meteorology Station repair related equipment- Deep cycle marine battery (12 V, 105 Ah) and 50 W solar panel		Monitor ambient climate
Meteorology Station repair related equipment- Metal VEB instrumentation box		
Meteorology Station repair related equipment- Brackets and metal rod for mounting precipitation gauge as well as conduit, horseclamps etc.		

11. Detail fuel and hazardous materials use:

Fuels	Number of Containers	Capacity of Containers (gal & litres)
• Diesel	-	-
• Gasoline	2	20 L
• Aviation fuel	30 barrels	205 L
• Propane	-	-
• Other	-	-
Hazardous Materials	Number of Containers/Concentration	Capacity of Containers (gal & litres)
• Diluted Formalin	-	-
• Nitric Acid	40 very small vials (~ 1 ml) for water preservation	1 ml each
• Lugol's Iodine	-	-

12. Describe method of fuel transfer:

Rescan staff will be staying at the Hackett River camp for this project. Fuel transfer methodology has been described in the NRI application for baseline studies being conducted at the Hackett River camp. The attached documentation includes Sabina Silver's spill contingency plan.

13. Describe any procedures and materials in place to handle accidental spills. Please attach the spill contingency plan and other appropriate information about the hazardous materials associated with the proposed project.

Sabina Silver Inc. has an established spill contingency plan for the existing Hackett River camp (see attached documentation). All Rescan staff will abide by the rule and protocols of the existing camp, including those related to accidental spills.

SECTION 5: WASTE DISPOSAL AND TREATMENT FACILITIES

14. Describe amount and methods of disposal:

Type of Waste	Projected Amount Generated	Method of Disposal	Additional Treatment Procedures
Sewage	Unknown	Incinerated	Ashes shipped to Yellowknife
Grey water	Unknown	Holding tank	Drained into greywater pit located well away from any waterbodies
Garbage	Unknown	Incinerated	Ashes shipped to Yellowknife
Overburden (organic soil, waste material, tailings)	-	n/a	n/a
Hazardous waste:	-	n/a	n/a
Other:	-	n/a	n/a

SECTION 6: RESTORATION AND ABANDONMENT PLANS

15. Describe or attach the proposed procedure for site restoration upon abandonment of any area associated with the project:

Not applicable. There will be no impact to the environment associated with these baseline studies.

SECTION 7: ENVIRONMENTAL IMPACT

16. Indicate and describe the components of the environment that are near the project area, as applicable. Attach any relevant maps or information:

Type of species (common name, associated herd, etc.)	Important Habitat Area (calving, staging, denning, migratory pathways, spawning, nesting, etc.)	Critical time periods (calving, post-calving, spawning, nesting, breeding, etc.)
Example: <i>Narwhal</i>	<i>Ice floe edge in Pond Inlet</i>	<i>June-July, around break-up</i>
Fish:		
Lake Trout	Shoreline Spawning	Fall
Whitefish	Shoreline Spawning	Fall
Arctic Grayling	Spawning/Rearing	Spring/Summer
Slimy Sculpin	Spawning/Rearing	Summer
Ninespine Stickleback	Spawning/Rearing	Summer
Longnose Sucker	Rearing	Summer
Arctic char	Shoreline Spawning	Fall
Fourhorn sculpin	Shoreline Spawning	Late Winter/Early Spring
Starry flounder	Spawning/Rearing	Late Winter/Early Spring
Saffron cod	Spawning/Rearing	Winter
Artic flounder	Spawning/Rearing	Late Winter/Early Spring
Arctic cisco	Shoreline Spawning	Fall
Raptor:		
Peregrine falcon	Cliff nests	All April to June
Rough-legged hawk	Cliff nests	
Gyrfalcon	Cliff nests	
Golden eagle	Cliff nests	
Northern harrier	Ground nests	
Peregrine falcon	Cliff nests	

Migratory Birds:		
Lapland Longspur Savannah Sparrow American Tree Sparrow Harris' Sparrow Least Sandpiper Horned Lark Willow Ptarmigan White-crowned Sparrow Cliff Swallow Gray-cheeked thrush American Robin Water Pipit Yellow Warbler Common redpoll Baird's Sandpiper White-rumped sandpiper Lesser golden plover Semipalmated plover Semipalmated sandpiper Red-necked Phalarope Parasitic jaeger Arctic tern American pipit	All associated with tundra/tussock habitat	All June to July
Non-Migratory Birds:		
Rock Ptarmigan Raven Snowy owl	Rocky areas Grasses and sedges Grasses and sedges	All June to July
Waterfowl:		
Northern Pintail Green-winged Teal Mallard Greater White-fronted Goose Snow Goose Ross's Goose Greater Scaup Brant Canada Goose Cackling Goose Long-tailed duck (Oldsquaw) Tundra Swan White-winged Scoter Black Scoter Red-breasted Merganser Common Eider King Eider Red throat Loon Arctic Loon Yellow billed Loon Common Merganser	All species breed and nest in river edges, wetland areas, grasses and sedges	All May to June

Caribou:		
Bathurst Herd	Project area is within calving grounds	Early to mid-June
Ahiak Herd	Historic record of calving occurring northeast of project site	Early to mid-June
Muskox:	Project area is within range of muskox	May to June
Bears (grizzly, polar, black): Grizzly Bear	Denning	Year-round
Small Mammal: Masked Shrew Arctic hare Arctic ground squirrel Tundra redback vole Brown lemming Greenland collared lemming Tundra vole	Expected throughout project area	Year-round
Marine Mammal: Ringed Seal Bearded Seal	Fast ice	Mid March to Early April End April to Early May
Other:		
Eskers:	Camp is situated at the edge of an east-west Esker.	
Communities:	Bathurst Inlet, 104 km to the northeast is the nearest community	
Historical/Archaeological sites:	Unknown - separate study will address this in 2007	

17. Indicate and describe other known uses of the area such as local development, traditional use (hunting/fishing/spiritual), outfitting, tourism, mineral development, research, etc.:

The Project area has been occupied by Inuit for many generations (archaeological artefacts have been found in the area; Fedirchuk McCullough & Associates, 2001). This area has been traditionally used for hunting and fishing.

The Hackett River Camp is an operational exploration camp (located at 65°55'N, 108°22'W) and holds permits for water use, waste generation, fuel storage and access. At peak periods up to 40 personnel can be found on site.

Bathurst Inlet (north of the proposed port site) offers an eco-lodge accommodation and wildlife tours of the area.

Exploration camps have been established at Goose Lake and George Lake (both situated nearby the proposed road site) by Back River Project mineral claims.

18. Describe the impacts of the proposed project activity on the environmental components and uses, in the area listed above:

The collection of baseline information on the meteorology, water chemistry, sediment chemistry, birds, plants, rock geochemistry, marine algae and invertebrates will have a negligible impact on the environment. All sampling techniques were selected to be non-intrusive. Transportation to and from sampling sites will be conducted by a helicopter provided by Matrix Solutions Inc. which may create some temporary noise disturbance for wildlife. Sampling of marine sites at the port will be conducted by a small boat.

19. What are some suggested mitigation measures for these impacts?

Aircraft usage will be minimal during the sensitive caribou calving period and during the breeding period for sensitive bird species in the area. Rescan personnel will avoid disturbing local wildlife when in the field.

SECTION 7: COMMUNITY INVOLVEMENT & REGIONAL BENEFITS

20. List the community representatives that you have contacted about this proposed project:

Community	Name	Organisation	Date Contacted	Means	Telephone #	Fax #
Kitikmeot Region of Nunavut- Kugluktuk and Cambridge Bay	Mayors and municipal councils		May 6-7 2001			
Kitikmeot Region of Nunavut- Kugluktuk and Cambridge Bay	Community Elders		July 30 2001 and July 2002			
Kugluktuk			January 2002	Public Meeting		
Cambridge Bay			January 2002	Public Meeting		
Gjoa Haven			March 2002	Public Meeting		
Taloyoak			March 2002	Public Meeting		
Kugaaruk			March 2002	Public Meeting		
Cambridge Bay- Bathurst Inlet			July 20, 2002	Summer Residents		
Yellowknife		Yellowknife City Council	November 2002	Public Meeting		
Yellowknife			May 14 2007	Open House		
Cambridge Bay	Community Elders	Kitikmeot Inuit Association; NIRB	May 8 & 9 2007	Open House		
Gjoa Haven		Elders	May 10 & 11 2007	Open House		

21. Describe the level of involvement that the residents of Nunavut have had with respect to the proposed project. Elaborate on local employment opportunity, training programs, contracts, Inuit Impact Benefit Agreements (if applicable):

The proposed research consists of a small sampling program and requires involvement of assistants from the Kitikmeot Region. During the 2001 and 2002 baseline studies a large number of local Inuit assisted with the field work.

22. Describe and attach documentation regarding community concerns or support for the proposed project:

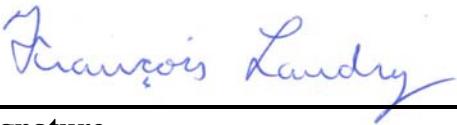
No concerns have been raised concerning the proposed research program.

23. Is there a Traditional Knowledge (TK) component to this research project?

This portion of the study has minimal inclusion of traditional knowledge because of the baseline nature of the data collection, although any traditional knowledge relevant to the proposed studies will be incorporated into the final document. Both the Naonaiyaotit Traditional Knowledge Project (documented responses by elders in the West Kitikmeot Region of Nunavut) and the Tuktu Nogak Project (focused traditional knowledge of caribou) will be used to write the EIS of the Bathurst Inlet Port and Road Project.

24. YES, we give NRI permission to release the applicants contact information in the Annual Compendium of Research Undertaken in Nunavut, published by the Nunavut Research Institute.

Applicant:

	<u>Project Manager</u>	<u>May 30, 2007</u>
Signature	Title	Date

2007 NRI Non-technical Summary of Proposed Research

The Bathurst Inlet Port and Road Project consists of a port on Bathurst Inlet connected to the mines and mineral deposits in Nunavut and Northwest Territories by a new 211 km all-weather road to Contwoyo Lake, and the existing “Tibbitt to Contwoyo” winter road. A map of the sample area is included with this proposal (Figure 1). The Project proponents are the Kitikmeot Corporation and Nuna Logistics Limited, both Inuit owned companies. The Proponent previously submitted a Project Description that was reviewed by NIRB, however, that Project was put on hold in November 2002 as a result of low base metal prices. A previous baseline study was completed in 2001 and 2002 by Rescan Environmental Services Limited and the current proposed research will provide current and complimentary baseline data for the Project.

The proposed research for 2007 includes characterizing the water and sediment quality of the area of the proposed road; characterizing mineral content of vegetation; re-commissioning a meteorology station in order to characterize the local climate; assess the potential for metal leaching or acid rock drainage along the proposed road; and a marine habitat assessment at the proposed port site. This work is being done to provide additional baseline characterization in the area to support the Environmental Impact Statement. Data collected in 2007 will also be used to help plan future project infrastructure. The proposed work is to be completed between June 17th 2007 and September 15th 2007.

Water quality and sediment quality will be characterized in streams along the proposed road. Water samples will be collected twice, once after spring thaw and then during low flow. Sediment samples will be collected only once during low flow from the six selected stream sites in order to measure sediment characteristics.

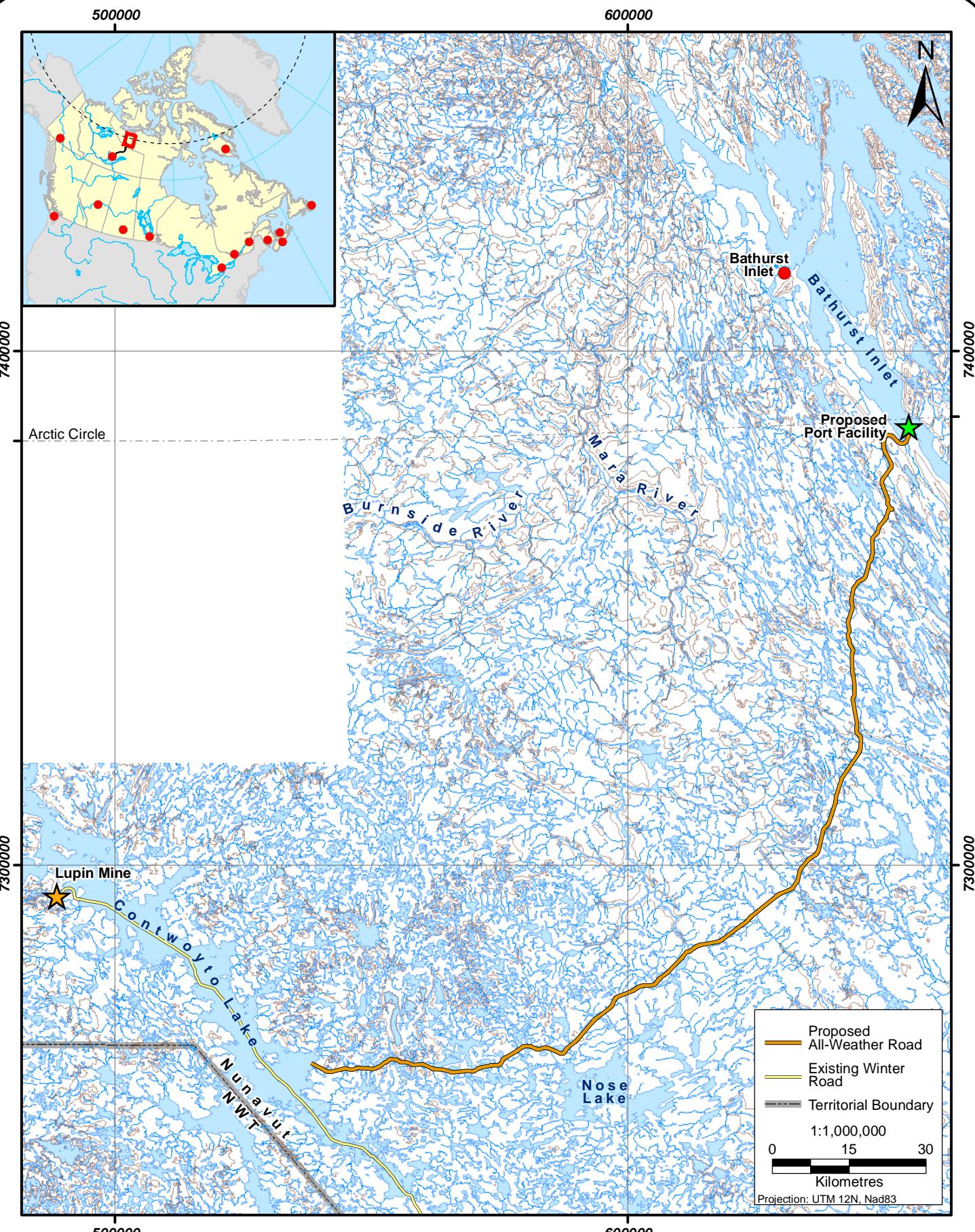
Marine habitat sampling will be completed at the site of the proposed port. Bathymetry surveys, using automated and manual equipment, will be completed to assess depths of the bay shoreline. This information will provide accurate and up to date measures for precise mapping of the proposed port and barge sites. Seawater quality, invertebrate density and sediment quality will be characterized in the area of the proposed port site. Fish habitat quality will be surveyed using aerial and underwater photographs at the proposed port site.

Plant species will be characterized throughout the area of the proposed road. Plants will be collected throughout the area of the proposed road to obtain baseline conditions of metal content.

Rock samples will be collected at potential areas of disturbance (quarries and road cuts) along the proposed road. Samples will be analyzed for metal content and acid production potential.

A damaged meteorological station will be mobilized and modified to prevent future damage by wildlife. The local climate will be monitored using the re-commissioned meteorological station through continuous recordings of information on winds, precipitation, humidity, temperature and other related characteristics. Information from the station will be valuable for future environmental assessment.

Transportation to the sites will be provided by a helicopter. Marine habitat sampling will be conducted by boat. Visits to each sampling site will be minimized during periods sensitive to wildlife. All Rescan staff will stay at Sabina Silver's- Hackett River established camp.



1. Detailed Summary of Proposed Research

1.1 Introduction

Detailed below is a brief outline of the research protocols that will be used in 2007 as part of the baseline study for the Bathurst Inlet Port and Road Project and submitted to Nunavut Research Institute for a scientific research license application.

Although the information presented below is as concise as possible, site-specific situations may require slight changes in the methodology. As such, the information presented should be interpreted as a guide to the techniques that will be utilized.

The majority of the baseline studies for the proposed Project were conducted in 2001 and 2002.

All research will be conducted from Sabina Silver Corporation's current exploration camp located on the shores of Camp Lake and referred to as the Hackett River camp. Rescan staff will follow all rules, guidelines, spill contingency plans, safety plans, waste disposal plans, bear deterrent plans and other regulations associated with camp operation.

In addition, all Rescan field staff will be certified for basic CPR and first aid, trained in bear deterrence techniques and helicopter safety. Bear Bangers and/or pepper spray will be carried by all field staff when beyond the camp perimeter.

Transportation to survey sites will be accomplished by helicopter.

1.2 Stream Water and Sediment Quality

In order to monitor potential changes related to development of the Project, water and sediment quality are required.

1.2.1 Water Quality

Water sampling will be conducted at six stream sites twice in 2007: once in June freshet and once during low flow in August. Analytical variables include physical, total and dissolved metals, nutrients, and total organic carbon. For each water sample, acid-cleaned plastic bottles and lids will be triple-rinsed in the stream water prior to collection. Water will be collected from mid-depth, facing upstream and avoiding surface and bottom debris, and no air will be left in bottles. A duplicate sample will be collected at a random site for each sampling session, and both field and travel blanks will be used, following proper QA/QC procedures. Preservative (ultra-pure nitric acid) will be added for total metals. No preservation is used for general parameters (physical, anions, nutrients) or dissolved metals samples. All samples will be kept cool in the dark for storage and transport to ALS laboratory (Vancouver, BC).

1.2.2 Sediment Quality

Sediment sampling will be conducted once at all six stream sites in August of 2007. At each site, three composite replicate samples will be obtained using a clean stainless steel bowl and spoon to collect surficial (top 2-4 cm) sediment from stream beds. For each composite replicate, a minimum of 3 areas will be sampled and resulting sediment will be mixed thoroughly and deposited in pre-labelled ziplock bags, double-bagged with no air inside, and kept cool in the dark for storage and transport to ALS laboratory (Vancouver, BC). Analytical variables will include pH, total metals, total organic carbon, total nitrogen and phosphate, and particle size distribution.

1.3 Marine Habitat and Biology Sampling

Bathymetry of the area of the proposed port site will be completed. Physical limnology, water quality, sediment quality, phytoplankton sampling and invertebrate (zooplankton and benthos) sampling will be conducted at three sites, two at the proposed port site, and one at the barge site in Bathurst Inlet. A control site, where impact is not expected, will be sampled using the same methodology as those used at the proposed port site. Fish habitat surveys also will be conducted in the area of the proposed port site.

1.3.1 Bathymetry

While some bathymetry data of the area exists, a more accurate bathymetric survey will be conducted in 2007 to enable a 1 m contour map of the port and barge sites to be produced. The bathymetry survey will consist of two parts: 1) taking Global Positioning System (GPS)-linked depth records (automated or manual) on transects along the bay; and 2) by conducting a GPS survey of the bay shoreline. The depth surveys will use a Trimble PF Power Differential Global Positioning System (DGPS) for positioning, a 200 kHz SeaMax depth sounder to record water depths, and a Trimble TSC1 datalogger to collect the data in electronic files. Manual depth measurements will be taken using a 1.0 meter measuring rod or a Norcross HawkEye handheld depth sounder. Depth surveys will be carried out by navigating a course of regular spaced transects across the bay. SeaMax soundings will be automatically recorded along transects every four seconds for depths greater than 1.8 meters (the lower operating range of the SeaMax sounder). At depths less than 1.8 meters, manual depth measurements will be taken approximately every three seconds using a 1.0 meter measuring rod or the HawkEye handheld depth sounder.

1.3.2 Physical Limnology

Vertical profiles of temperature, salinity and density will be performed at the three sites using an STD-12 Conductivity, Temperature and Depth (CTD) probe (Applied Microsystems Ltd.). The probe will provide measurements of temperature, salinity and density at approximately 1 m intervals from the surface to the sea bottom. A vertical profile of dissolved oxygen at 1 m intervals will also be collected with a YSI dissolved oxygen meter. Secchi depth will be measured at each site so that the depth of the euphotic zone can be calculated. A marine Secchi disk (30 cm diameter, solid white) will be lowered over the shaded side of the boat until it disappears from sight. The depth of disappearance will be recorded as the Secchi depth.

1.3.3 Water Quality

Seawater samples will be collected with an acid-cleaned Teflon-lined Go-Flo sampler and tested at ALS Environmental in Vancouver B.C. Inspection of existing bathymetric data suggests that the majority of the port and barge structures will be situated in water <5 m in depth. It is therefore proposed to have one water quality sampling site at 5 m depth, with samples taken at the surface, 2 m and 4 m, and two sites at 3 m depth, with samples taken at the surface and 2 m. Single samples will be taken at each depth, with 10% duplication for quality assurance/quality control purposes. Travel, field and equipment blanks will also be taken as quality control measures. Water samples will be tested for physical variables (conductivity, pH, total dissolved and suspended solids, hardness and turbidity), and concentrations of dissolved anions, nutrients, total organic carbon, and dissolved and total metals (ultra-pure nitric acid will be added to sample).

1.3.4 Sediment Quality

Sediment samples will be collected at the three sampling sites using a Petite Ponar grab sampler. Triplicate samples will be collected and examined for physical characteristics, including texture, grain size, layering, colour, odour, and the presence of any biological materials (*e.g.*, shells, tubes, macrophytes) and/or debris. After the physical appearance of the sediment has been noted, the top 2 cm of the sample will be collected and placed in clean plastic bags for chemical and grain size analysis by ALS Environmental. Laboratory analyses will examine physical characteristics (percent moisture and percent particle size), nutrients, inorganics, total metals and extractable petroleum hydrocarbons.

1.3.5 Phytoplankton

Seawater samples for phytoplankton biomass will be collected in triplicate at three depths at each site, two evenly spaced samples in the euphotic zone and one sample just below the euphotic zone. The depth of the euphotic zone will be estimated from the Secchi depth at that site. Samples will be collected with the Go-Flo bottle and will be kept on ice in coolers until they can be filtered at camp. Water samples will be filtered through nitrocellulose filters with a 0.45 μm pore size. The filters will be folded, wrapped in aluminum foil, frozen, and shipped to ALS Environmental for analysis. At ALS, the filters will be analyzed for their concentrations of chlorophyll *a*. Phytoplankton taxonomy samples will be collected in triplicate from the surface and preserved with Lugol's solution. The preserved samples will be sent to Fraser Environmental Services Ltd.

1.3.6 Zooplankton and Benthos

Zooplankton samples will be collected with a 1.5 m-long, Birge-style, conical plankton net with 200 μm mesh, a plastic cod-end, and a General Oceanics flowmeter to measure the volume of filtered water. Triplicate samples will be collected at each site by conducting vertical tows from the sea floor to the sea surface. Contents of the net will be washed into the cod-end and then transferred to clean, pre-labelled sample bottles. Formalin will be added to make up a 5% formalin-seawater solution. Preserved samples will be sent to Applied Technical Services Ltd, Victoria, B.C. for taxonomic identification and enumeration.

Benthos samples will be collected in triplicate from the three sites using the Petite Ponar sampler. Contents of the sampler will be washed through standard 0.5 mm and 1 mm mesh sieves to remove sediment and divide benthic organisms into two size classes. The organisms retained on the sieves will be transferred to plastic jars and preserved in a 10% buffered formalin-seawater solution. Preserved samples will then be sent to Applied Technical Services Ltd, Victoria, B.C. for taxonomic identification and enumeration.

1.3.7 Fish Habitat Survey

Fish community data for the area was previously collected in 2001. Further fish habitat data will be collected. The fish habitat survey will consist of taking aerial photographs from a helicopter at low altitude, performing a ground survey to record the substrate and habitat types present, taking underwater still photographs of representative habitat types, and conducting an underwater video survey of the whole area of proposed development.

1.4 Plant Tissue Sampling

The collection of plant tissue samples for metals analysis provides information on the metal levels that occur naturally in vegetation growing within the study area. The data will be used to direct future monitoring plans.

1.4.1 Field Sampling

Plant tissue samples will be collected at intervals along the proposed road route as well as at the proposed port facility. Wherever possible, a single plant species will be collected to reduce inter-species variability associated with metals uptake. When more than one plant species needs to be collected, sufficient samples of each species will be collected so that descriptive statistics can be generated. Replicate samples will also be collected.

Only the above-ground portion of herbaceous plants and newest/younger growth of woody species (shrubs) will be sampled. Samples will likely consist of several individual herbs of the same species or the stems and leaves from shrubs of the same species.

Sampling will be conducted by hand. Care will be taken to ensure hands are clean during sampling and that any dirt or root material be removed prior to placement into the sampling bag. Sampling will be into labelled, plastic bags. Plant samples will be shipped to ALS Environmental in Vancouver, BC, for analysis.

1.5 Metal Leaching/Acid Rock Drainage

The concern along the road corridor with respect to Metal Leaching/Acid Rock Drainage (ML/ARD) is the potential for deleterious drainage from road cuts and material obtained from quarries. Characterization of quarry material is essential so that the road is not constructed with material deemed to be ML and/or ARD generating

When field work was performed in 2001, the final location of quarries had not yet been determined and sample selection was based on best estimates of quarry and road cut locations. The proposed work is a continuation of the ML/ARD characterization outlined

in Rescan (2003) but targeting the areas of disturbance (quarries and road cuts), as outlined by the road engineers. No geological mapping will be conducted.

1.5.1 Field Collections

The objective of the upcoming field season is to obtain samples from the planned areas of disturbance (quarries and road cuts). Chip samples will be taken from outcrops in sufficient quantities (200 g) for static, kinetic and mineralogical tests. Where appropriate, two or three samples from one outcrop may be sampled. A helicopter would be used for sampling. In consultation with Rescan (2003), a select number of outcrops from 2001 may be re-sampled if required for humidity cell test work. An estimated total of 40 samples will be taken in 2007.

1.5.2 Laboratory Analysis

All samples will be analyzed for static tests, *i.e.* acid base accounting test work and solid-phase total metals. These data will provide information on the potential of the samples to generate net acidity. Upon analysis of these data, a select number of samples will be chosen for kinetic test work (humidity cells) and mineralogical analysis. Humidity cells provide information on the rates of weathering and metal leaching. The minerals that are acid forming as well as neutralizing can be identified through mineralogy.

1.6 Meteorology

1.6.1 Re-commissioning the Meteorology Station

The automated meteorology station at Bathurst Inlet was damaged by wildlife on August 23, 2004. The majority of the damage to the station was a result of wildlife (wolverines and grizzly bears) chewing or pulling on exposed wires connecting the meteorological instruments to the CR10X data logger.

To re-commission the Bathurst Inlet meteorology station, the following modifications are recommended (these recommendations are deemed to be sufficient to prevent or minimize future damage to the instruments by wildlife):

- All wires within 5 metres of the ground will be encased in heavy duty flexible metal conduit
- The temperature and relative humidity sensor will be installed at a height of 3 metres above the ground (the current height is 2 metres)
- The Texas Instruments tipping bucket rain gauge will be mounted on a cross-arm extending from the meteorology tower at a height of 3 metres above the ground
- The deep cycle battery will be mounted on the meteorology tower at a height of 3 metres

The CR10X data logger will be encased in a metal (aluminum or steel) instrumentation box, which will be fitted with a metal bracket and flexible metal conduit.

1.6.2 Data Collection

On-site meteorological data are required for a variety of purposes. Wind speed and direction data are usually required to select sites for the permanent camp and mineral processing facilities to accommodate predominant wind patterns and mitigate the effects of fugitive dust. Wind and air temperature data are required to estimate the dispersion of fugitive dust from the project activities and to determine the project's potential air quality effects.

The automated meteorological station will be solar powered and collect data continuously around the clock. The various sensors will be mounted on a 10 m aluminium tower that will be anchored with bedrock anchors and guy wires. Wind speed will be measured in m/s and wind direction in degrees from true north.

The temperature and relative humidity sensors are combined into one unit. Temperature will be measured in degrees Celsius and relative humidity in percent. The tipping bucket rain gauge (TBRG) will monitor rainfall in millimetres. Just before winter begins (*i.e.*, September 2007) the TBRG will be converted (using a Campbell Scientific CS705 adapter kit) to enable it to monitor snow-water-equivalent (SWE) precipitation. A solution of polypropylene glycol will melt snow precipitation and the corresponding solution volume will be recorded with the TBRG mechanism. The polypropylene glycol solution will require changing every 3 to 4 months.

An ultrasonic sensor will be used to monitor snow depths in centimetres. Solar radiation will be monitored with a pyranometer in watts per square metre.

The sensors for the station will be connected to a Campbell Scientific CR10X datalogger which controls the operation of the station. The datalogger's program dictates how often the sensors will be monitored (every 5 seconds), and generates and stores hourly and daily averages. The station will be powered with a sealed rechargeable battery that is recharged with a 50 watt solar panel. An external deep cycle marine 105 Amp-hour battery will be used to ensure power to the station during winter. The station will be grounded to prevent lightning from damaging the electronics.

1.7 References

National Research Council (NRC). 2005. Mineral Tolerance of Animals. Second Revised Edition Committee on Minerals and Toxic Substances in Diets and Water for Animals, Board on Agriculture and Natural Resources, Division on Earth and Life Studies. Washington, D.C.

Rescan. 2003. Geology Characterization Baseline Report, Bathurst Project. Prepared for the Bathurst Port and Road Project Technical Committee by Rescan Environmental Services Ltd. January, 2003.

Table 1
Proposed Sampling Schedule:
Bathurst Inlet Port and Road Project 2007 Baseline Studies

Component	Personnel Days:				Estimated Personnel Days Total
	June	July	Aug.	Sept.	
<i>Plant Tissue Sampling</i>		2			2
<i>Re-commissioning of the Meteorology Station</i>	2				2
<i>Water and Sediment Quality Survey</i>	1		4		5
<i>Metal Leaching and Acid Rock Drainage</i>	15				15
<i>Marine Habitat Sampling</i>			12		12
Total Estimated Personnel Days on Site	18	2	16	0	36

Estimates include Rescan staff and field assistants

**SPILL CONTINGENCY PLAN
HACKETT RIVER
EXPLORATION PROJECT**

SABINA SILVER CORPORATION

**Initial Submission: March 5, 2004
First Revision: July 29, 2004
Second Revision: March 20, 2006
Third Revision: June 30, 2006
Fourth Revision: November 3, 2006**

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1.0 INTRODUCTION

This revised Spill Contingency Plan was prepared on site and incorporates current project information to reflect minor changes in the Hackett River camp. The Hackett River camp is operated by Sabina Silver Corporation. In the event of a spill, camp specific information must be readily available. The following list provides the required contact information.

2.0 CONTACT INFORMATION

1. Site owner in charge of contaminants.

Sabina Silver Corporation
401-1113 Jade Court
Thunder Bay, Ontario
P7B 6M7
Ph: (807) 766 – 1799
Fax: (807) 345 – 0284

2. Name, address and telephone number of the employer.

Sabina Silver Corporation
401-1113 Jade Court
Thunder Bay, Ontario
P7B 6M7
Ph: (807) 766 – 1799
Fax: (807) 345 – 0284

3. Name, title and 24 hour contact number for the person or persons responsible for activating the spill plan. These people have the authority to activate the spill plan and to call in additional support.

Harvey Klatt
Project Manager
Hackett River Camp office ph: (604) 677 – 0669
Hackett River Camp alternate ph: (604) 677 – 0670
Hackett River Camp fax (604) 677 – 0660
hklatt@sabinasilver.com

If Harvey Klatt is not available the alternate is:

Scott Burgess

Assistant Project Manager

Hackett River Camp office ph: (604) 677 – 0669

Hackett River Camp alternate ph: (604) 677 – 0670

3.0 CAMP LOCATION AND DESCRIPTION

4. Location and detailed description of the exploration camp facility.

The Hackett River mineral exploration camp is located at:

Latitude: 65° 55'N, Longitude: 108° 22'W

and in UTM coordinates (NAD 27 Datum) the camp is located at:

620025 E, 7312150N on NTS Map Sheet 76 F/16

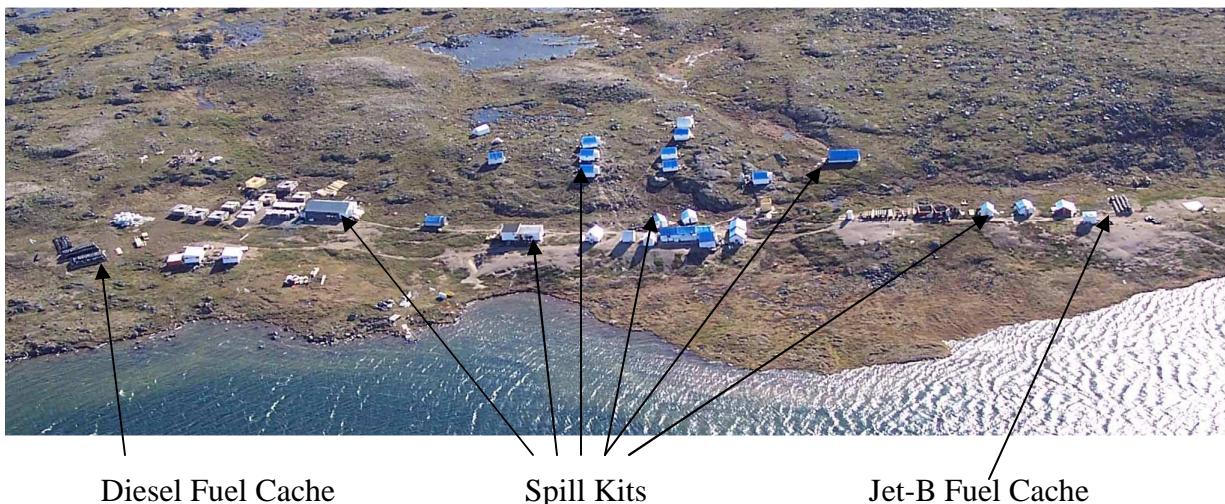


FIGURE 1: Aerial photo of the Hackett River Camp infrastructure labeled to show the location of the fuel caches and fuel spill response kits (June 19, 2006 photo). Bulk potential contaminants are stored in two locations in camp: south of the metal clad building at the south end of camp, and at the north end of camp. Small quantities of potential contaminants are also located in nearly all of the other structures in camp – mostly as diesel fuel used for heating.

The following Table 1 lists camp structures, the location and quantity of potential contaminants in or adjacent to the structures together with the location and size of the various Spill Response Kits located in camp.

Function	Tents	Potential Contaminant	Quantity
Kitchen	1 large building	Diesel (for stove) Propane (for range)	Less than 200 litres Two 100 lb tanks
Shower / laundry	1 tent	Diesel (for stove) Propane (for water heater)	Less than 200 litres Two 100 lb tanks
Drillers dry	1 large tent	Diesel (for stove) Propane (for water heater)	Less than 200 litres Two 100 lb tanks
Tool shed / work shop	1 small shed	Diesel (for stove)	Less than 200 litres
Pacto shed	1 small shed	Organic waste	Up to 3 garbage bags full or approximately 15 litres
Drill foreman's office / telecommunications	1 small tent	Diesel (for stove)	Less than 200 litres
Project office <i>(contains a 20 litre spill response kit)</i>	1 large tent	Diesel (for stove)	Less than 200 litres
Generator and storage shed <i>(contains a 205 litre spill response kit)</i>	1 large shed	Diesel (for generator)	Less than 600 litres
Backup Generator Shed	1 small shed	Diesel (for Generator)	Less than 600 litres
Recreation / smoking / TV <i>(contains a 20 litre spill response kit)</i>	2 tents	Diesel (for stove)	Less than 200 litres at each tent.
Core cutting	1 small shed	Propane (for daisy heater in winter)	100 lb tank
Core logging building	2 larger sheds	Diesel (for stove)	Less than 200 litres at each
Core storage shed <i>(contains a 205 litre spill response kit)</i>	1 large metal-roofed building	Diesel (for stove)	Less than 200 litres
Helicopter supply shed	1 small shed	Diesel (for stove)	Less than 200 litres
Drill Supplies	1 shed	Motor oil Linseed Soap Poly-Drill OBX Poly-Drill 133-X Poly-Drill 1330	Up to 4 cases Up to 4 tubs Up to 15 tubs Up to 15 tubs Up to 15 tubs
First aid / Head cook and helper <i>(contains a 20 litre spill</i>	1 large tent	Diesel (for stove)	Less than 200 litres

response kit)			
Drillers sleeping quarters	3 tents	Diesel (for stoves)	Less than 200 litres at each tent.
Geophysics tent (contains a 20 litre spill response kit)	2 tents	Diesel (for stove)	Less than 200 litres at each tent
Helicopter pilot & engineer	1 small tent	Diesel (for stove)	Less than 200 litres
Geology crew	3 tents	Diesel (for stove)	Less than 200 litres
Support crew	3 tents	Diesel (for stove)	Less than 200 litres

Table 1: Camp infrastructure, location and quantity of possible contaminants.

In the area south of the metal clad building are located two drummed fuel caches, and a bulk drilling supplies storage area. An additional drummed fuel caches is located between the helicopter landing pad and the drill supplies shed close to the north end of the camp. The fuel caches consist of up to:

Potential Contaminant	Container Size	Maximum Quantity	Comments
Diesel	205 litre drums	1110	Stored in 3 caches, each within an arctic-grade impermeable secondary containment berm
Jet-B	205 litre drums	310	Stored in 1 cache, within an arctic-grade impermeable secondary containment berm
Gasoline	205 litre drums	5	Stored separately in an upright position separate from the other fuel caches within an arctic grade mini-berm.
Propane	100 lb cylinders	25	Stored on a wooden deck and secured in an upright position between the dock and the generator shed.

Table 2: Fuel caches and contents

Note: Propane, and wooden storage deck was moved to higher ground above sleeping tents to avoid drifting in, over the winter. Propane, and deck will be moved back to normal location when camp is re-opened.

Within close proximity to the helicopter landing pad are located drums of Jet-B fuel. The quantity of fuel stored at the helicopter landing pad will vary according to use but would ordinarily be 5 drums or less.

Within the drilling supplies storage area calcium chloride salt is located. A maximum of 35 pallets of salt would be located on site. Each pallet contains 56 plastic bags of salt weighing 22.68 kg (50 lb) each. The maximum amount of salt stored on the site would be 44.45 tonnes. The salt is shipped in plastic bags and is restacked and stored in woven plastic Megabags on site. The Megabags are stored

up off the ground on pallets to minimize the chance of water dissolving the stored salt.

Spill response kits are also located at each of the drills.

5. A description of the type and maximum amount of potential contaminants that may be on site is listed below:

Brand Name	Constituent	Maximum Quantity on Site
Poly-Drill O.B.X.	Liquid Polymer	15 tubs (5 gallon size)
Poly-Drill 133-X	Liquid Anionic Polymer	15 tubs (5 gallon size)
Poly-Drill 1330	Liquid Anionic Polymer	15 tubs (5 gallon size)
PureVis	Liquid Polymer	15 tubs (5 gallon size)
Westcoast Drilling Supplies	Linseed Soap	15 tubs (5 gallon size)
Peladow	Calcium Chloride salt	44.45 tonnes

Table 3: Drill Additives

Type	Maximum Number of Containers	Capacity of containers
Diesel	1110	205 litre
Gasoline (lead free)	5	205 litre
Aviation Fuel (Jet B)	310	205 litre
Propane	25	100 lb

Table 4: Fuels

Product	Maximum Quantities on Site
Drill Rod Heavy Grease	3 tubs, each tub containing 5 gallons
Duron Multigrade Engine Oil SAE Viscosity Grades 10W-30, 15W-40	3 cases, each case containing 12 litres

Table 5: Lubricants

Product	Maximum Quantities on Site
Oxygen	1 cylinder containing 7 kg of oxygen
Acetylene	1 cylinder containing 12 kg of acetylene

Table 6: Welding Gases

Product	Maximum Quantities on Site
Oxygen	6 cylinders containing 0.65 kg of oxygen each
Oxygen	1 cylinder containing 7 kg of oxygen

Table 7: Medical Gases

Other chemicals that would be used in small quantities during the drill program would include kitchen soaps and cleaning agents, bleach, soaps and shampoo, mosquito repellent and other similar household items. Kitchen cleaners would be kept in the kitchen tent; bleach, soaps and shampoo would be stored in the shower / laundry tent and driller's dry. Mosquito repellent would be stored with office field supplies in the office tent.

MSDS information for the above listed potential contaminants and products are contained in Appendix 1.

4.0 SPILL REPORTING

6. Steps to report, contain, clean-up and dispose of a spill.

Reporting a Spill

First call the Nunavut/NWT 24 hour spill line at **(867) 920 – 8130, or Fax: (867) 873-6924**. The spill line will then contact the lead regulatory agency. Collect calls are accepted. Also, call the DIAND Water Resources Inspector at **(867) 975 – 4295**.

Please ensure that as much information as possible is included in the notification however do **not** jeopardize personal safety to obtain this information. Do not delay reporting a spill because you do not have all the requested information.

Information that is most useful includes:

- Spill location with map coordinates (if known) and direction (if moving).
- Date and time or estimated time of spill and the time of observation of the spill.
- Who is the party responsible for spill (who is in charge or has control of the contaminants at the time of the spill)?
- What product or products spilled and what are the estimated spilled quantities (in metric if possible)?
- What caused the spill?
- Has spill been stopped?
- If spill is continuing provide an estimate of the rate of spillage.
- Is further spillage possible?
- What is the extent of contaminated area (in square meters if possible)?
- What factors are affecting the spill, weather, snow cover, terrain, etc.)?

- What containment measures are in place or are being used (natural depression, dykes, booms, absorbent pads, etc.)?
- What actions, if any, are being taken to contain, recover, clean-up and dispose of the spilled product and contaminated materials?
- Do you require assistance to contain, recover, clean-up and dispose of the spilled material?
- What are the possible hazards to persons, property or environment (e.g. fire, drinking water, fish or wildlife habitat)?
- Any other relevant information.
- Who is making this report, your job title, employer and address?
- What is your contact phone number?

If you are not sure if the spilled product is classified as a contaminant or if you are not sure if the volume of the spill is a reportable quantity, it is recommended to report the incident.

It's a regulatory requirement that all spills and leaks of gasoline or diesel fuel must be reported to the Environmental Protection Branch. **Any leak or spill of any amount into a watercourse, water body or groundwater must be reported.**

Any spill, or incident that may likely result in a spill, of an amount equal to or greater than the amount listed in the table below shall be promptly reported.

Item No.	TDGA Class	Description of Contaminant	Amount Spilled
1.	1	Explosives	Any amount
2.	2.1	Compressed gas (flammable)	Any amount of gas from containers with a capacity greater than 100 litres.
3.	2.2	Compressed gas (non-corrosive, non flammable)	Any amount of gas from containers with a capacity greater than 100 litres
4.	2.3	Compressed gas (toxic)	Any amount
5.	2.4	Compressed gas (corrosive)	Any amount
6.	3.1, 3.2, 3.3	Flammable liquid	100 litres
7.	4.1	Flammable solid	25 kg
8.	4.2	Spontaneously combustible solids	25 kg
9.	4.3	Water reactant solids	25 kg
10.	5.1	Oxidizing substances	50 litres or 50 kg
11.	5.2	Organic Peroxides	1 litre or 1 kg
12.	6.1	Poisonous substances	5 litres or 5 kg
13.	6.2	Infectious substances	Any amount

14.	7	Radioactive	Any amount
15.	8	Corrosive substances	5 litres or 5 kg
16.	9.1 (in part)	Miscellaneous products or substances, excluding PCB mixtures	50 litres or 50 kg
17.	9.2	Environmentally hazardous	1 litre or 1 kg
18.	9.3	Dangerous wastes	5 litres or 5 kg
19.	9.1 (in part)	PCB mixtures of 5 or more parts per million	0.5 litres or 0.5 kg
20.	None	Other contaminants	100 litres or 100 kg

Table 8: Spill reporting thresholds for potential contaminants

After the spill has been called in complete a written Spill Report Form listed in Appendix 2.

4.1 Spill Clean up

It is much more difficult work to clean up a spill than to prevent it from occurring. Prevention is better than containment and containment is better than no containment. Clean-up from a secondary containment berm or drip pan is easier than from the natural environment. Effective spill prevention requires education, regular practical training sessions, regular inspections and awareness.

Hydrocarbons are the most likely contaminant to require a spill response. Diesel is used in the greatest number of locations so is the most likely to require a spill response. The physical setting of the spill will determine the methods used to contain and clean up the spill. The physical settings likely to be encountered during a spill response would include: land, muskeg, ice & snow, lakes & ponds and flowing streams and rivers.

Land

- Flowing spills should be stopped using earth, snow, plastic or other barrier means. Prevent entry to waterways.
- Spills should be removed using absorbent pads and if feasible, the contaminated soil should be dug up and placed in a plastic or metal bucket with a lid for transportation to a remediation facility or to an approved disposal site.
- Do not wash into drainages with water.
- On well vegetated tundra remove as much as possible using absorbent pads followed by use of peat moss to absorb the diesel and stabilize it for natural degradation processes to act on it. Leave the peat moss in place to degrade so as not to inflict additional damage to the vegetation.

Muskeg

- Muskeg vegetation is sensitive to disturbance. Carefully place absorbent matting to remove as much diesel as possible.
- Flood the area with water to float the diesel and make it more amenable to collection using absorbent matting. Wash and aim the floating diesel with a low pressure hose to a suitable collection area.
- Keep equipment off the muskeg as it will probably get stuck and cause more damage to vegetation.

Ice and Snow

- Block any spill with snow, plastic or other barrier material so it doesn't enter a waterway.
- Shovel the contaminated snow and ice into a mega-bag or suitable cargo sled and transport it to one of the fuel containment berms where it can melt. Once melted, the released diesel can be removed from the water surface contained within the berm by using absorbent matting.
- Propane powered flame torches should be used to melt and combust diesel from candled ice surfaces that are commonly developed in the spring.

Standing Water

- Use spill containment booms to keep the spill from spreading.
- Deploy the containment booms to keep the clean-up area to as small as size as is effective.
- Use absorbent pads to pick-up the spilled diesel.
- Use caution when working from shore as any wetlands are susceptible to damage from clean-up activities. See section on muskeg for work in these areas.

Flowing Water

- Where possible prevent entry to streams or rivers by digging a ditch or berm.
- Deploy absorbent booms (or "tiger tails") across the direction of flow to absorb the diesel. Absorbent pad may also be used where the current is slow.
- Deploy the absorbent booms where flow is slower. Deployment of absorbent booms across turbulent flow is only partially effective in absorbing diesel.
- Multiple booms may be needed if the current is strong.

4.2 *Leak Prevention*

Leaks most often occur during handling of the fuel but may also develop slowly over time. Fuel drums in any fuel cache shall be inspected regularly for leaks.

Adequate worker training is required to avoid puncturing the fuel drums during handling. Fuel drum storage locations must be inspected for, and cleared of, puncture or tipping hazards. An impermeable geomembrane secondary containment berm is used to store drums at fuel caches.

Workers will be trained in refueling techniques to prevent the spillage of fuel.

Propane, oxygen and acetylene tanks will be stored securely upright to prevent tipping and possible breakage of the gas fittings.

4.3 *Leaks or Spills*

Action Plan in the event of a spill or leak:

- Evaluate the scene and ensure personal safety and the safety of any others.
- Find and locate the source of the spill and either stop or contain the spill if possible. Contain the spill by damming with earth or other suitable material.
- Remove all sources of ignition. Be prepared to use a fire extinguisher. **Remember gas vapors flow down hill and are extremely explosive.**
- Work from the upwind side to avoid inhaling fuel vapors and becoming engulfed in flames if a fire starts.
- Notify the Camp Supervisor or Project Manager who will activate the Spill Contingency Plan and call the 24 hour Spill Report Line at **(867) 920 – 8130, Fax: (867) 873-6924**. The Camp Supervisor will also call the DIAND Water Resources Inspector at **(867) 975 – 4295**.
- Don't wash spilled fuel or contaminant into potentially higher risk areas. Protect water sources and septic systems.
- Clean up and dispose of all fuel or contaminant by shoveling the contaminated earth or absorbent material into metal containers. Dispose of contaminated cleanup materials in an approved manner.
- Clean up the spill site using site appropriate absorbents, tools and procedures. Clean up and dispose of all fuel contaminated soil or absorbent material by shoveling into sealed containers.
- Dispose of contaminated cleanup materials in an approved manner.
- Record the spill on the Spill Report form and conduct follow-up monitoring if required.
- Ensure that all ignitable vapors are dispersed before resuming normal activities.
- Review the incident with others in camp and share ideas on to prevent a similar type of spill from occurring again.

4.4 *Fire Prevention*

The most serious spill incident would involve fire and a fuel contaminant. In order to minimize the risk of fire, **No Smoking** and **Flammable** signs will be posted near to any fuel cache along with a dry chemical fire extinguisher. Fire extinguishers will also be located at each site where fuel is used. Workers will be trained in the use of the fire extinguisher and be instructed of the risk caused by electrical and open flame fire hazards near fuel. The fuel caches will be located well away from camp buildings and will be kept clean and free of litter to reduce risk.

4.41 Fire

Action plan in the event of a petroleum fire:

- Raise the alarm! Warn others and call for assistance.
- Personal safety comes first, make sure you and others nearby are safe. Evacuate if necessary and account for everyone. The main muster station is the kitchen and the secondary muster station is the main office.
- If necessary, provide first aid and locate any missing workers. Remove any injured people to a safe site, generally upwind from the fire.
- If a person, who is splashed with fuel, catches fire, wrap him in a blanket or roll him on the ground to remove oxygen and extinguish the fire. If this doesn't work, use an ABC, dry chemical, fire extinguisher to put out the fire
- If there is a danger of explosion get away!
- If possible, stop the flow of fuel feeding the fire.
- Remove on-going sources of ignition i.e., shut off the electricity.
- Attempt to extinguish flames using approved equipment. Remember, diesel fuel and gasoline float. Don't wash flames to an area of higher danger.
- Remember the order of priority, human safety comes first, then property. Don't risk your life for possessions.
- Notify the Camp Manager or Project Manager who will implement the Action Plan for Leaks or Spills once the fire is out and who will also notify authorities, if required.
- Conduct follow-up monitoring, if required.
- Clean-up the site when allowed to do so.
- Review the incident with others in camp and discuss ways to prevent similar fires in the future.

4.5 Leak Containment

Secondary leak containment requires the planned use of absorbent pads, drip buckets, drip pans, or impermeable geomembrane secondary containment berms to catch any slow or unexpected leaks. The use of these collection methods requires regular monitoring to ensure that the capacity of the leak collection device is not exceeded. In the event that the previously listed containment devices are exceeded, use a shovel to create an earth berm or use any other suitable absorbent media to slow or halt the spread of a spill.

Locations containing fuel drums (near generator, fuel supplied for tents, main fuel cache) will be equipped or fitted with absorbent pads, pans, buckets or mini-berms to prevent the escape of fuel to the environment. A regular inspection program shall be established to monitor the condition of the leak containment devices so they do not overflow. Drums in the fuel cache will be inspected daily. In the event a drum shows leakage it will be removed from the fuel cache and the fuel will be transferred to a suitable empty refuge drum.

4. 6 Disposal

Appropriate disposal for any recovered product and contaminated soil, water or absorbent clean up materials is regulated and must be authorized by the agency investigating the incident. Obtain approval from all appropriate government agencies before disposal. A hazardous waste generator number is acquired, and passed on to the expeditor for their records, when disposing of camp waste.

Fuel contaminated soil can be remediated on site through land farming, incineration or thermal desorption. Alternatively the contaminated soil can be flown out to Yellowknife for disposal in an approved dump site.

Any unuseable recovered product, contaminated soil and clean up materials will be stored in containers on site prior to disposal. First choice would be plastic tub containers with a lid. If additional capacity is required contaminated material would be stored in open headed drums and would be later covered to keep out any rain or snow.

Additional advice on how to treat or dispose of contaminated materials or soil as well as environmental site assessment and remediation may be obtained through:

Gartner Lee Environmental
4912 – 49th Street, Box 98
Yellowknife, Northwest Territory
X1A 2N1

Tel: (867) 873 – 5808
Fax: (867) 873 – 4453

Unused quantities of contaminants at the end of the exploration program will be returned for recycling.

7. A site map of sufficiently large scale to show the locations of buildings, contaminants storage areas, sensitive areas such as water bodies, probable pathways of contaminant flow and general topography.

The following map shows the physical geography of the Hackett River Camp and complements the camp airphoto shown below. A labeled close-up airphoto of the camp follows.

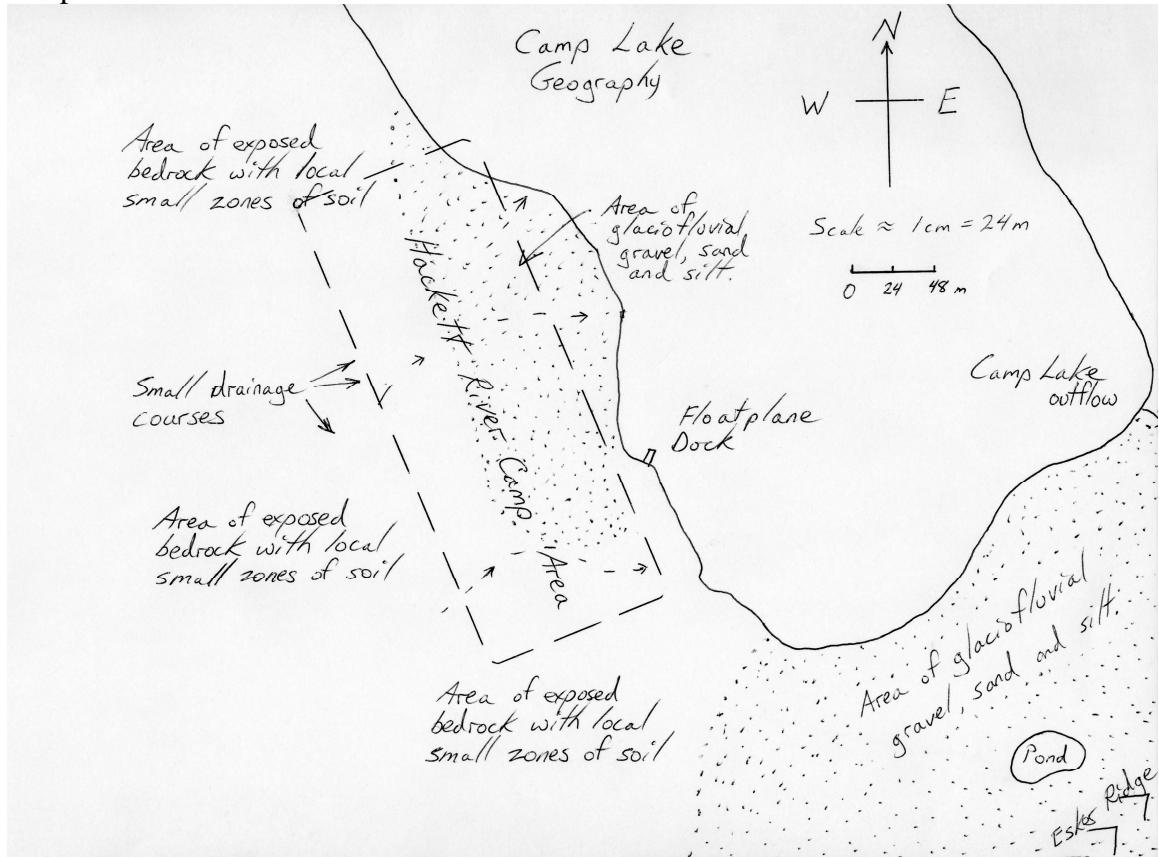


FIGURE 2: Physical geography of the Hackett River Camp.



FIGURE 3: Hackett River Camp in June 19, 2006. North is to the left.

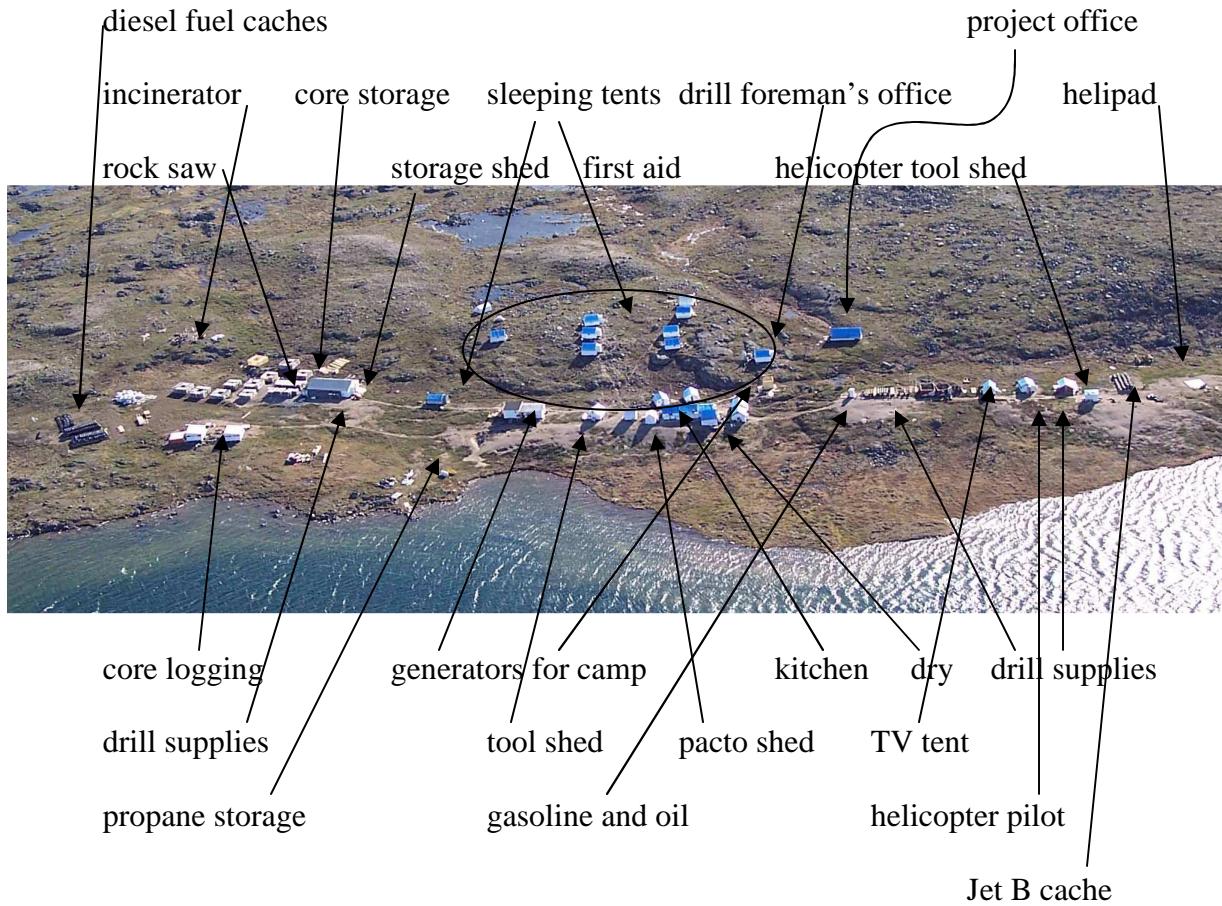


FIGURE 4: Labeled airphoto of the Hackett River Camp, looking WSW. (Photo June 19, 2006).

8. **A description of the spill response training provided to employees who will respond to a spill.**

All employees in camp shall be provided W.H.M.I.S. training session at the start of the exploration program, and refresher training will be provided as necessary.

All employees in camp will be provided Standard Level Enhanced First Aid training at the start of the exploration program if they lack a valid first aid certificate. Updated training, and refresher courses will be supplied to ensure all employees have a current emergency First Aid certificate.

On site orientation will be provided to all employees so as to ensure that all employees are aware of:

- The location of MSDS sheets, Spill Report Forms, and Spill Record Book.
- The location of the various fuel caches.
- The location of the various Spill Response Kits.

- The location of the Muster Station, Fire Station, fire extinguishers and water pump and fire fighting equipment.
- The location of any taps that may be used to stop the flow of a fuel.
- The location of the Spill Action Plan and the Fire Action Plan.

On site training will be provided to all employees as to the use of:

- Spill kit contents.
- Fire extinguishers and water pump.

Training will be provided to all employees so that they are able to:

- Turn off the tap to stop the flow of fuel.
- Activate the Spill Action Plan and the Fire Action Plan.
- Identify, evaluate and mitigate the hazards posed by any spilled product by using appropriate PPE (personal protective equipment).
- Identify and avoid the conditions which may lead to a spill.
- Develop an understanding of the potential environmental impacts of a spill.
- Develop and understanding of the financial costs of a spill.
- Recognize the hazards associated with sources of ignition (smoking, electrical sparks) near a fuel source.

For employees involved in fuel handling, additional training would be provided regarding appropriate refueling techniques and drum handling procedures.

Simulated fuel spill exercises will be conducted approximately every 6 weeks to ensure familiarity with the Spill Action Plan and ensure that the plan is relevant and useful throughout the exploration season.

9. An inventory of and the location of response and clean-up equipment available to implement the spill contingency plan.

A total of five **20 litre Spill Response Kits** and four **205 litre Spill Response Kits** will be available to implement the spill contingency plan. The location of the various spill response kits is indicated in the table of camp structures listed above under question # 4.

Spill Response Kit Contents

<i>20 litre All Purpose Spill Response Kit</i>	<i>205 litre H.O.W. Spill Response Kit</i>
1 - 20 litre poly containment pail	150 - 17" X 19" oil absorbent pads
12 - 16" X 20" oil absorbent pads	8 - 3" X 48" oil absorbent socks
2 - 3" X 48" oil absorbent socks	2 - 5" X 120" oil absorbent booms
1 - heavy duty disposal bag (8 mil)	4 - temporary disposal bags 42x48-XS
1 - pair Chemi-Pro gloves	1 - pair nitrile gauntlet gloves

3 - lbs of all purpose absorbent	1 - pair disposable coverall
	1 - pair clear safety goggles
	1 - 4 oz temporary Gapseal stick
	1 - 205 litre containment drum (metal/poly) with quick release lever lock system

Table 9: Spill Response Kit contents

Micellaneous equipment in camp would be made available for spill response and clean up. This equipment would include spades and snow shovels, a gas powered water pump, hand crank fuel pump, hand and power tools and any suitable absorbent or containment materials found in the supplies tent or core shack.

The placement and number of spill kits will be re-evaluated during each 6 week spill response simulation exercise.

10. Date of Spill Response Plan was prepared.

November 6, 2006