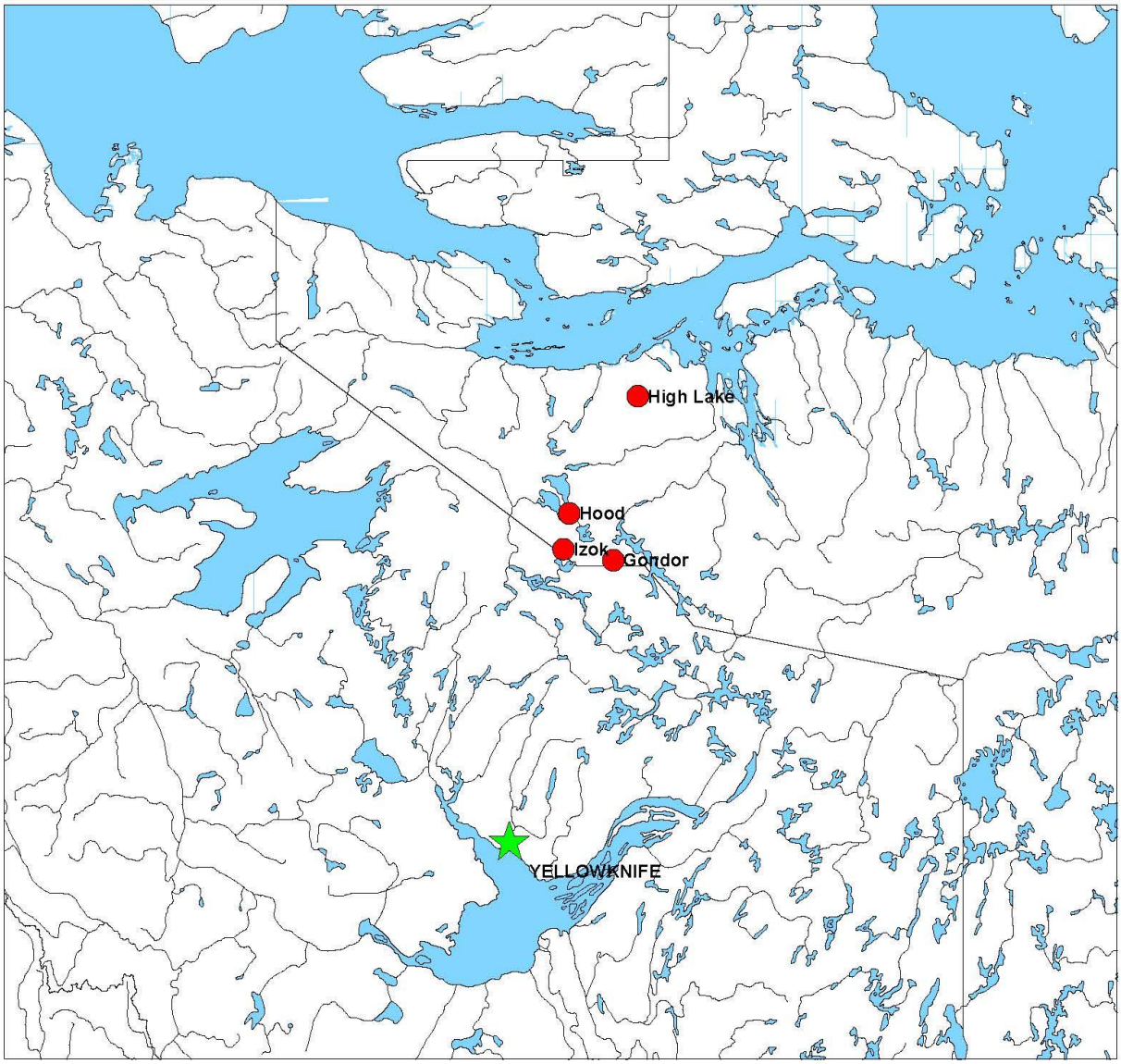
Izok Project
ANNUAL REPORT
for
2BE-IZ00712
Zinifex Canada Inc.

Reporting on work completed in 2008

Submittal prepared from archived information 2012

Project Location Map



N

Legend
- MMG Project Sites
- YellowKnife
- Rivers

0 150 300
kilometers

MMG

Date: 02-Aug-12	Project Location Map
Author: YeungC	
Office: Vancouver	
Drawing: 001	
Scale: 1 : 7,000,000	Projection: WGS84

ZINIFEX

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Appendixes

1 Project Summary

Zinifex Canada Inc. is a mining development company that has acquired the mineral rights for the Izok property, and portions of the Hood property from Wolfden Resources Inc.

The Hood property contains copper and zinc deposits, and consists of two mineral leases surrounded by Inuit Owned land (surface and subsurface rights; CO-40: Sub-areas A, B, and Open).

The Izok property contains copper and zinc, and consists of three mineral leases and three claims (currently being processed). The leases are located on Crown and Inuit Owned Land (CO-05; surface rights).
Zinfex completed follow up drilling based on 2007 airborne geophysics and exploratory drilling program in the vicinity of Izok Lake and on the Hood and Gondor properties. Three diamond drills were employed, and the scope of the drilling program was somewhat contingent on the ongoing results achieved.

In addition to mineral exploration activities, some environmental baseline work and engineering studies were carried out concurrent with the planned diamond drilling and prospecting.
The activities are necessary to increase the technical understanding of the nature of the mineral deposits. The long-term objective of any mineral exploration program is to progress the project towards feasibility studies and eventual development of a producing mine. In addition to the mineral exploration work, environmental baseline studies will be undertaken to obtain the necessary background data and to improve the knowledge of the physical environment of the property. This is in preparation for a future submission of an Environmental Impact Statement in support of permit applications for mine development and operation.

2 Water Use

Water use on the Izok project is resultant from two activities; diamond drilling and camp operations. Diamond drilling began April 17, 2008 and concluded September 20 2008, and consisted of three drills. A total of 68 holes were completed during the 2008 season. Water pumped to the drill is calculated by average pumping rates of supply pumps and is $25m^3$ per drill per day. Of this an estimated 30% is used by the drill for drilling operations, the remainder, which is clean unused water is allowed to flow back to the water table. A summary of the water source and sump locations is provided in Appendix 1. A map is provided in Appendix 2 indicating the locations of water sources and sumps.

The Ham Lake Camp utilizes water from Ham Lake. The water consumption was calculated by keeping record of the number of times the storage tanks were filled. The known volume of the storage tanks was multiplied by number of times each was filled. The camp consumed an average of 750 gallons of water per day during operation. This converts to 2.84m^3 per day. The 2008 season saw a water meter installed at the Ham Lake camp, but volume records were not encountered in the archived information available.

3 Unauthorized Discharges

No spills or unauthorized discharges occurred during the exploration program and reporting period. Spill Contingency Plan / Abandonment and Restoration Plan

The Izok Spill Contingency Plan was updated at the conclusion of the reporting period, with minor changes to personnel listed and contact numbers provided. Additional materials were added to the MSDS sheets where needed. The updated Spill Contingency plan is attached to this report.

4 Reclamation Work

Reclamation work occurs at each diamond drilling site on an ongoing basis during the exploration program. Each site is returned to its natural state with as little disturbance as possible at the conclusion of each drill hole. No reclamation work was carried out at the Ham Lake camp site during the reporting period, however during the course of operations; a historic abandoned fuel drum was encountered and dealt with accordingly. Please find attached the report submitted.

5 Employment

Zinifex has been pleased to employ locally wherever possible, and has hired employees from the nearby communities of Cambridge Bay, Bathurst Inlet and Kugluktuk. During the 2008 field season the Izok Project employed the following Inuit employees,

John Himiak (Heavy Equipment Operator)
John Koadloak (Heavy Equipment Operator)
Kirk Kapakatoak (geo-technician)
Doug Ivarluk (geo-technician)
Robert Ayaligak (geo-technician)
Fred Koahina (Bear Monitor)
Gord Ailanak (Bear Monitor)

6 Other Details Requested by the NWB

No other details were requested by the Board during the exploration program and reporting period.

2008 DRILLING SUMMARY TABLE:

DRILL HOLE COLLAR				SUMP LOCATION		WATER SOURCE	
Easting	**Northing**	**Hole ID**	**Depth (m)**	**Easting**	**Northing**	**Easting**	**Northing**
418381	7280269	HEN-375	647	418430	7280260	418244	7280213
418531	7280532	HEN-376	749	418503	7280503	418620	7280558
417574	7279997	HEN-377	134	417475	7279966	417560	7280050
417505	7280170	HEN-378	149	417370	7280250	417560	7280050
417475	7280161	HEN-379	149	417370	7280250	417560	7280050
416833	7280241	HEN-380	80	416560	7280220	416830	7280210
416915	7280218	HEN-381	110	416560	7280220	416830	7280210
417330	7280169	HEN-382	50	417370	7280070	417270	7280180
416904	7280180	HEN-383	131	416560	7280220	416830	7280210
417277	7280142	HEN-384	50	417370	7280070	417270	7280180
417258	7280114	HEN-385	50	417370	7280070	417270	7280180
416863	7280131	HEN-386	119	416560	7280220	416830	7280210
417149	7280006	HEN-387	116	417321	7279993	417093	7280042
417030	7280086	HEN-388	125.6	417321	7279993	417093	7280042
417065	7279973	HEN-389	50	417321	7279993	417093	7280042
417038	7279959	HEN-390	71	417321	7279993	417009	7280004
416930	7279957	HEN-391	80	417321	7279993	417009	7280004
417004	7279955	HEN-392	59	417321	7279993	417009	7280004
416870	7279939	HEN-393	101	417321	7279993	417009	7280004
416966	7279961	HEN-394	116	417321	7279993	417009	7280004
416836	7279946	HEN-395	131	417321	7279993	417009	7280004
416918	7279926	HEN-396	95	417321	7279993	417009	7280004
417202	7280036	HEN-397	50	417321	7279993	417009	7280004
417300	7280043	HEN-398	50	417321	7279993	417009	7280004
417846	7280283	HEN-399	149	417910	7280230	417790	7280310
417375	7280217	HEN-400	50	417382	7280260	417790	7280310
417470	7279936	HEN-401	128	417450	7279970	417477	7279928
418152	7280300	HEN-402	128	418137	7280317	418080	7280291
418135	7280291	HEN-403	448.7	418137	7280317	418080	7280291
417485	7279969	HEN-404	170	417450	7279970	417477	7279928
417440	7279966	HEN-405	170	417450	7279970	417477	7279928
417440	7279966	HEN-406	170	417450	7279970	417477	7279928
417365	7279952	HEN-407	173	417351	7279932	417009	7280004
418152	7280300	HEN-408	158	418137	7280317	418080	7280291
418152	7280300	HEN-409	548	418137	7280317	418080	7280291
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417315	7280731	HEN-413	305	417306	7280748	417374	7280695
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416578	7279803	HEN-416	179	416555	7279821	416457	7279936
418033	7280039	HEN-417	350	418034	7280022	418082	7280108

417837	7279612	HEN-418	395	417845	7279616	417793	7279569
417979	7279957	HEN-419	536.45	417998	7279949	418082	7280108
418604	7280910	HEN-420	470	418589	7280922	418650	7280873
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417884	7280122	HEN-422	200	417896	7280108	417870	7280190
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417892	7280167	HEN-430	161	417900	7280153	417952	7280106
417892	7280167	HEN-431	185	417900	7280153	417952	7280106
417974	7280147	HEN-432	319	417963	7280144	417952	7280106
415719	7280408	HEN-433	287	415681	7280460	416330	7280610
417949	7280189	HEN-434	245.3	417943	7280184	417947	7280231
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415870	7281080	HEN-438	26	415872	7281070	415822	7281118
415870	7281080	HEN-439	4	415872	7281070	415822	7281118
417705	7280563	HEN-440	287	417707	7280583	417712	7280499
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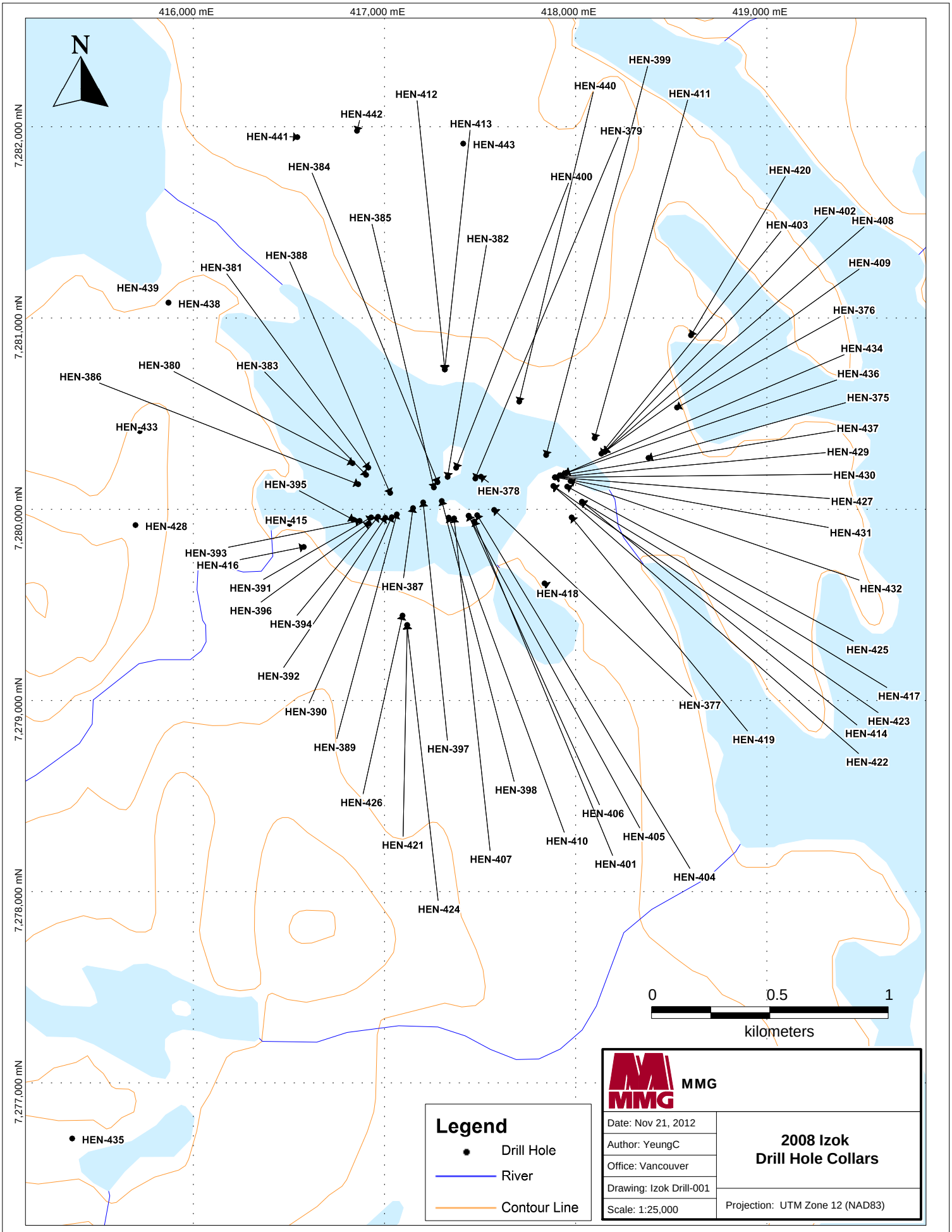
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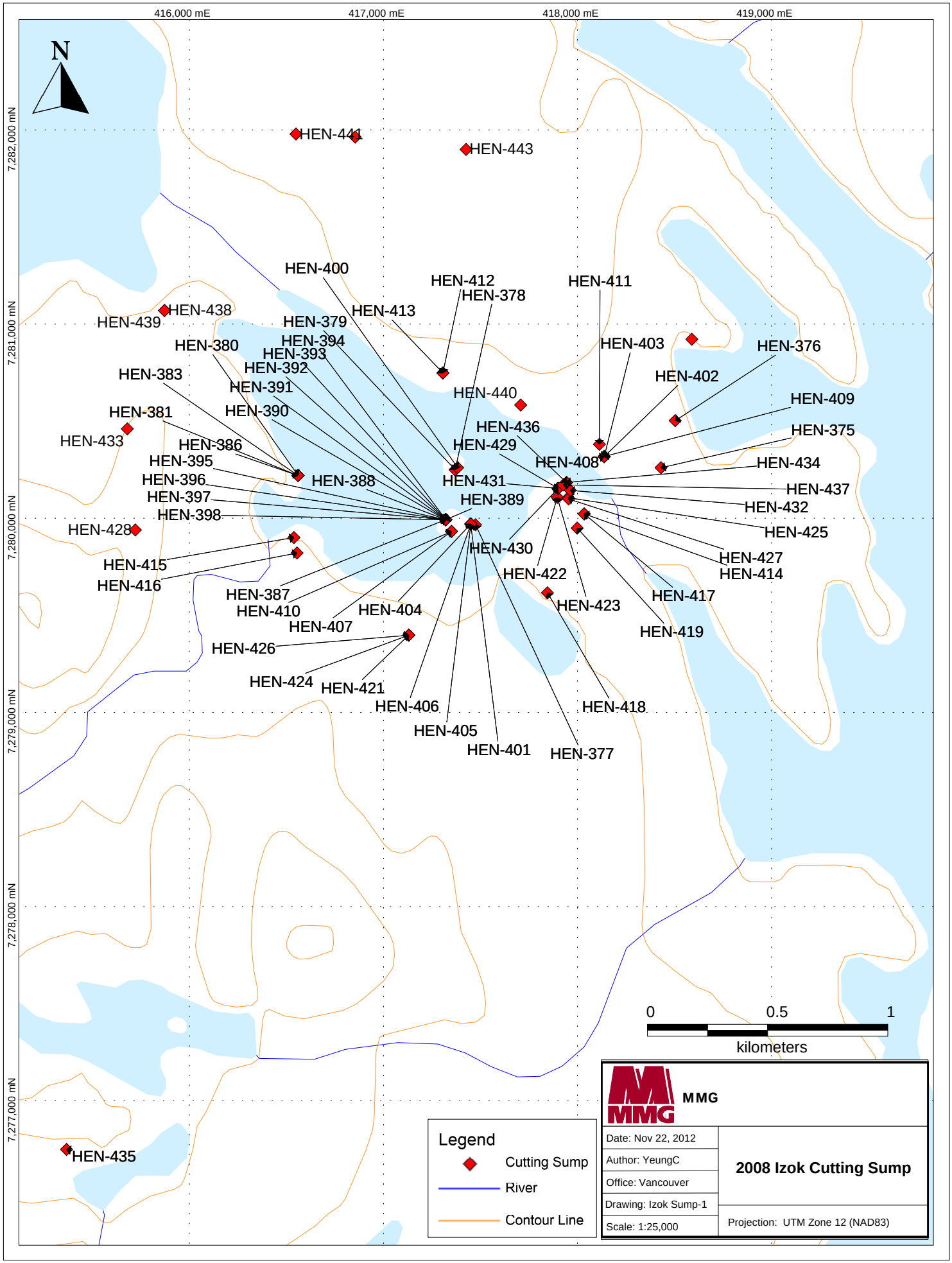
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Office: Vancouver
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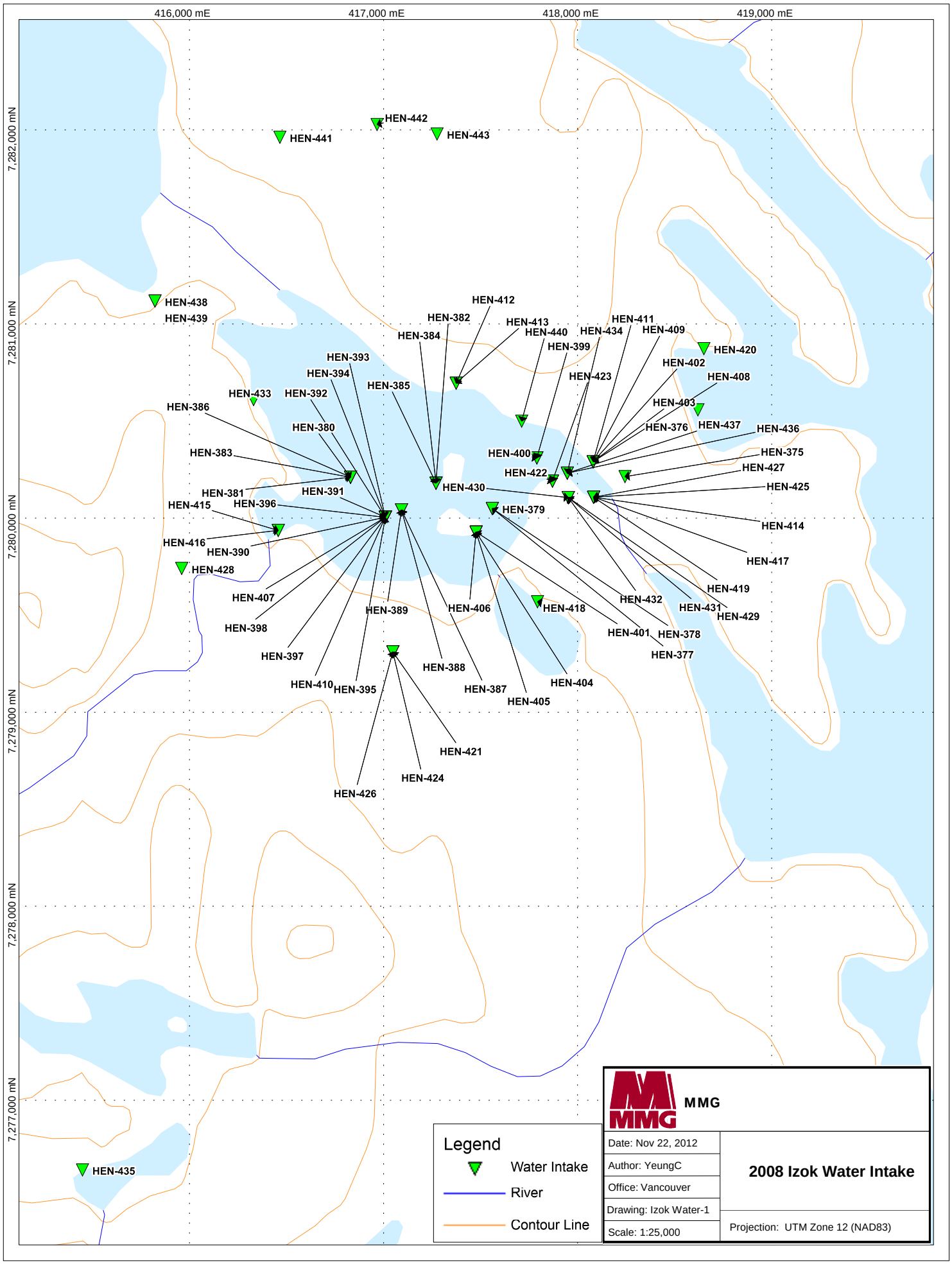
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River
Contour Line
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Date: Nov 22, 2012
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Office: Vancouver
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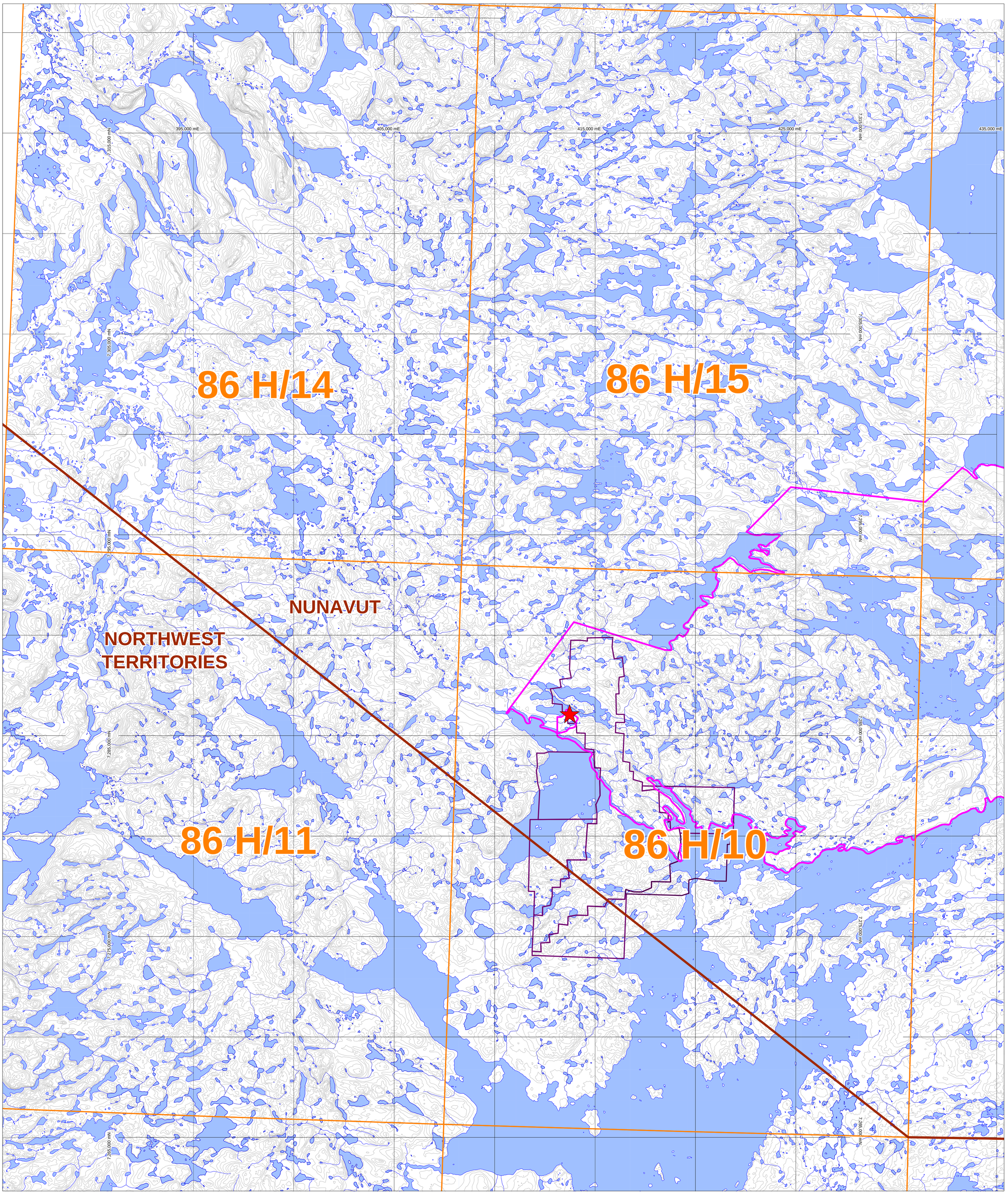
Figure 1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Contours
NTS Mapsheet
Inuit Owned Land
Water Course
NU/NWT Boundary
Izok Camp
Waterbody
Izok Property
Exploration Locations
ZINIFEX
Projection: UTM Zone 12 NAD83
Revision: 0
Date: November 2, 2007
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0 5 10 20
metres
Scale 1:50,000
Map: 3

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

NWB File No: 2BE-IZO0712

June 2, 2008

By Regular Mail

Mr. Aaron MacDonell
Health, Safety and Environment Coordinator
Zinifex Canada Inc.
401 – 1113 Jade Court
Thunder Bay, ON P7B 6M7

Re: Receipt of Water Use Fee – Izok Project

Dear Mr. MacDonell:

The Nunavut Water Board acknowledges receipt in May 2008 of your water use fee, cheque number 007895, for the above project. This will cover your annual fee for the period May 2007 to May 2008. Your next fee is required on May 4, 2009. Your payment has been forwarded to DIAND in Iqaluit for processing. A receipt will be issued through their office for $30.00.

Please call the undersigned at (867) 360-6338 or e-mail licensing@nunavutwaterboard.org if you have any questions.

Sincerely,

Original signed by:

Phyllis Beaulieu
Manager of Licensing

Cc: Jim Rogers, INAC

NT-NU SPILL REPORT

OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

NT-NU 24-HOUR SPILL REPORT LINE
TEL: (867) 920-8130
FAX: (867) 873-6924
EMAIL: spills@gov.nt.ca

REPORT LINE USE ONLY

A	REPORT DATE: MONTH – DAY – YEAR **September 4, 2008**	REPORT TIME **14:00**	[X] ORIGINAL SPILL REPORT, OR ☐ UPDATE # _____ TO THE ORIGINAL SPILL REPORT	REPORT NUMBER ____-____
B	OCCURRENCE DATE: MONTH – DAY – YEAR **unknown - historical spill uncovered**	OCCURRENCE TIME **N/A**		

C	LAND USE PERMIT NUMBER (IF APPLICABLE) **N2008C0020**	WATER LICENCE NUMBER (IF APPLICABLE) **2BE-IZO 0712**
D	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION **Izok Lake Ham Camp (exploration camp)**	REGION ☐ NWT [X] NUNAVUT ☐ ADJACENT JURISDICTION OR OCEAN
E	LATITUDE DEGREES MINUTES SECONDS	LONGITUDE DEGREES MINUTES SECONDS

F	RESPONSIBLE PARTY OR VESSEL NAME **Unknown**	RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION
G	ANY CONTRACTOR INVOLVED	CONTRACTOR ADDRESS OR OFFICE LOCATION

H	PRODUCT SPILLED **fuel/fuel oil**	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES **unknown**	U.N. NUMBER
	SECOND PRODUCT SPILLED (IF APPLICABLE) **NA**	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES **NA**	U.N. NUMBER **NA**

I	SPILL SOURCE **Unknown**	SPILL CAUSE **buried drum/waste, etc.**	AREA OF CONTAMINATION IN SQUARE METRES **3 square metres (at surface)**
J	FACTORS AFFECTING SPILL OR RECOVERY **season, equipment constraints**	DESCRIBE ANY ASSISTANCE REQUIRED	HAZARDS TO PERSONS, PROPERTY OR EQUIPMENT

K — ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS

A drum was uncovered on site at Ham Camp (Izok). There was some fuel in it, so the fuel was pumped from the drum and contained. The drum was then moved to one of the on site insta berms. Upon further investigation, there appeared to be several more items buried in the sand where the drum was discovered. A bobcat with a small loader bucket was used to scrape back the overburden in the area to expose several pieces of steel buried in the ground (drum filled with burnt material, a stove pipe, drum lid, and old oil stove, etc.) The soil in and around the area (approx. 30 - 40 cm below grade) had an oily texture and did smell like fuel. The materials and the soil that were unearthed were containerized for transport off site. The excavation effort was ended at approx. 1.5 metres below grade due to the limitations of the bobcat. There was nothing else on site that could be used to dig further, so the excavation effort was ceased. The camp will be closed in a few weeks, so further actions/options will need to be examined next season.

L	REPORTED TO SPILL LINE BY **Adrian Andreacchi**	POSITION **EA Coordinator**	EMPLOYER **OZ Minerals**	LOCATION CALLING FROM **Thunder Bay, ON**	TELEPHONE **807-346-1668**
M	ANY ALTERNATE CONTACT **Aaron MacDonell**	POSITION **Approvals Specialist**	EMPLOYER **OZ Minerals**	ALTERNATE CONTACT LOCATION **same as above**	ALTERNATE TELEPHONE **same as abov**

REPORT LINE USE ONLY

N	RECEIVED AT SPILL LINE BY	POSITION STATION OPERATOR	EMPLOYER	LOCATION CALLED YELLOWKNIFE, NT	REPORT LINE NUMBER (867) 920-8130

LEAD AGENCY ☐ EC ☐ CCG ☐ GNWT ☐ GN ☐ ILA ☐ INAC ☐ NEB ☐ TC | SIGNIFICANCE ☐ MINOR ☐ MAJOR ☐ UNKNOWN | FILE STATUS ☐ OPEN ☐ CLOSED

AGENCY	CONTACT NAME	CONTACT TIME	REMARKS
LEAD AGENCY			
FIRST SUPPORT AGENCY			
SECOND SUPPORT AGENCY			
THIRD SUPPORT AGENCY			

SPILL CONTINGENCY PLAN
EXPLORATION OPERATIONS
IZOK, HOOD AND GONDOR PROJECTS
NUNAVUT, CANADA

October, 2007

Prepared By: _____ Date: _____

Aaron MacDonell – Health, Safety and Environment Coordinator
Zinifex Canada Inc.

Reviewed By: _____ Date: _____

Andrew Mitchell – Manager, Environmental Affairs
Zinifex Canada Inc.

Authorized By: _____ Date: _____

John Begeman - Chief Operating Officer
Zinifex Canada Inc.

Zinifex Canada Inc.
401-1113 Jade Court, Thunder Bay ON P7B 6M7 • Tel: 807-346-1668 • Fax: 807-345-0284

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LIST OF FIGURES

1.0 PREAMBLE

The Spill Contingency Plan is effective from January 1, 2008 to December 31, 2008 and applies to the Izok, Hood and Gondor Projects – Ham camp operated by Wolfden Resources in the Kitikmeot District of Nunavut, north latitude 65° 40' and west longitude 112° 50'. The project is under agreement with Nunavut Tunngavik Incorporated (NTI). Land Use permits with the Kitikmeot Inuit Association (KIA) and Nunavut Water Board (NWB) are currently in place.

The locations of the Izok drilling areas are shown on Figures 3 to 10. The Ham Camp layout is shown on Figure 2.

The following formal distribution has been made of this plan: KIA, NWB, Dave Stevenson (Exploration Manager, Zinifex Canada Inc.), Andrew Mitchell (Manager, Environmental Affairs, Zinifex Canada Inc.), John Begeman (Chief Operating Officer, Zinifex Canada Inc.) Ewan Downie (President and Chief Executive Officer – Zinifex Canada Inc.).

2.0 INTRODUCTION

This Spill Contingency Plan is to provides a plan of action for reasonably foreseeable spill events at the Izok, Hood and Gondor Projects – Ham camp considering the nature of the fuels and other hazardous materials that will be handled during the Company's operations The plan defines the responsibilities of key response personnel and outlines the procedures for responding to spill in a way that will act to minimize potential health and safety hazards, environmental damage and remediation costs. The plan has been prepared to provide ready access to all the information needed in dealing with a spill.

It is Zinifex Canada Inc. policy to comply with all existing laws and regulations to help ensure the protection of the environment, to provide such protection of the environment as is technically feasible, to cooperate with other groups working on protection of the environment and to keep employees, government officials and the public informed.

Personnel will be instructed on the plan upon arrival in camp. Instruction will also be given on how to properly manipulate and store fuel and other hazardous substances and on the location of emergency equipment. A more graphical representation of this plan will be posted in common camp areas.

3.0 SITE DESCRIPTION

The camp is located on the South and East Shores of Ham Lake. The camp was established by the previous operator of the exploration project, Inmet Mining Corporation (Inmet). The camp includes an accommodation complex, diamond drill core logging and storage facilities, garage, fuel storage facilities. The camp is served by a 2500 foot long gravel air strip. The layout of the camp is shown on Figure 2.

From an inventory provided by Inmet, following is a list of the major components of the camp and ancillary facilities.

Major Camp Equipment/Facilities

13 – Travco trailer units
8 – 4' x 44' camp matting
1 – Oil fired incinerator (serial no. 18162)
1 – 10' x 44' Generator Building
2 – Cummins 150 kW diesel generators (serial no's. 44670421 and 4460441)
1 – Steel garage – 20' x 24'
2 – Wood frame, steel clad core storage warehouses
1 – Wood frame, aluminum clad 12' x 36' skidded core shack
1 – Weatherhaven Office 24' x 32
1 – Weatherhaven Large Sleeper 24' x 68'
10 – Weatherhaven 4 man Sleepers 14' x 16'
1 - Weatherhaven Kitchen 16' x 40'
2 - Weatherhaven Camp/Drillers Dry 16' x 24'

Fuel Tanks

7 – 12,000 gal fuel skid mounted fuel tanks

Mobile Equipment

1 – Caterpillar D-6 Bulldozer
1 – Champion Motor Grader
1 – Fuel Trailer
1- 1992 Ford Supercab F-350 trucks (diesel)

A map showing the regional setting of the project areas is provided on Figure 1. This plan can be extended to drilling operations that will be carried out at some distance from the

camp. The outlines of these areas are shown on Figures 3 to 10. A map showing the layout of the camp and airstrip is provided on Figure 2.

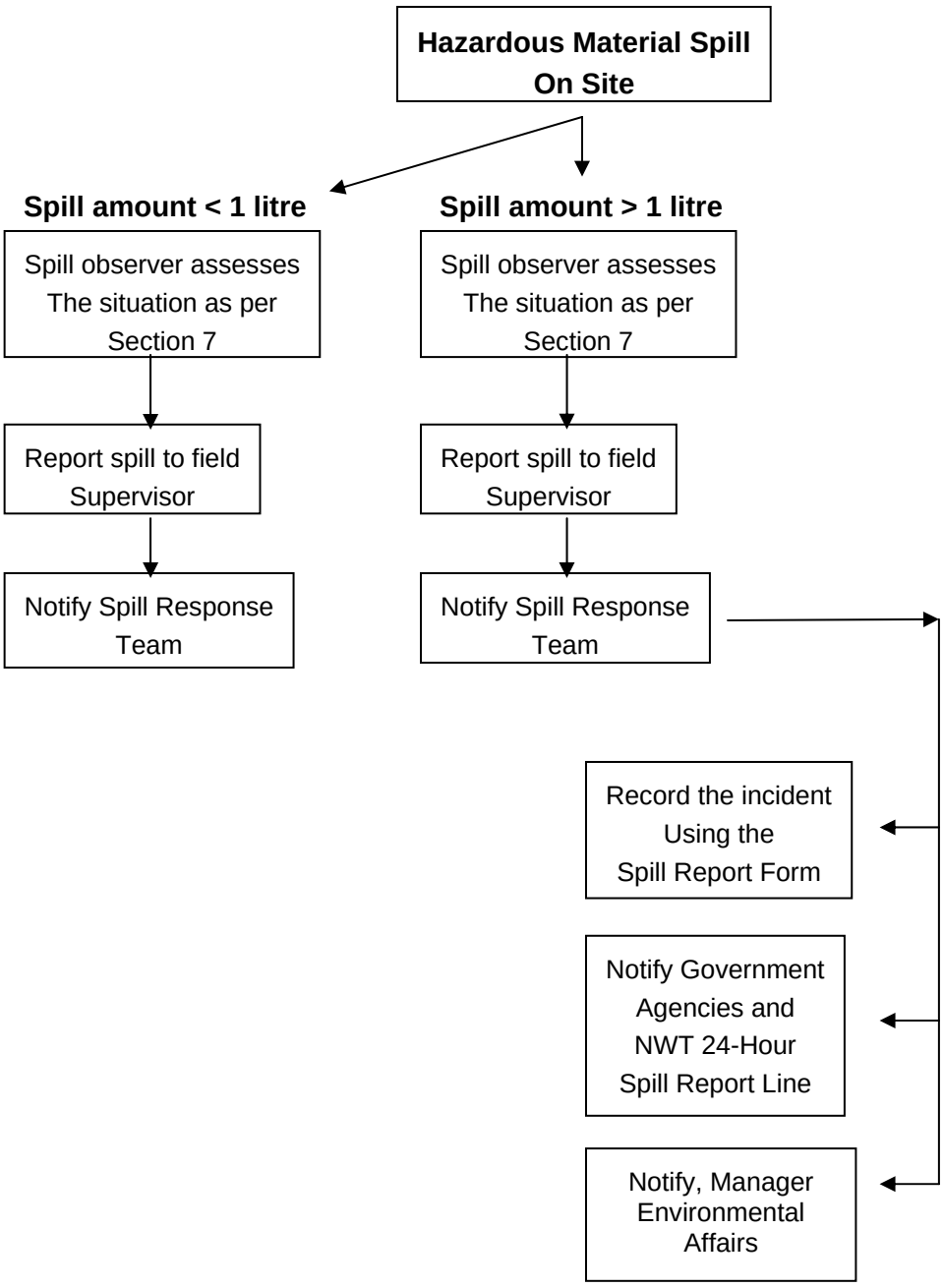
4.0 CONTACTS

People and organizations that can be contacted in the event of a spill:

Nunavut Contacts		
Exploration Manager	Dave Stevenson	416-987-7167
Camp Manager	Casey Lunn, Randy Oinenon	416-987-7176
Manager, Environmental Manager	Andrew Mitchell	(807)-346-1668
Wolfden Head Office	Ewan Downie	(807)-346-1668
Kitikmeot Inuit Association	Jack Kaniak	(867)-982-3310
Nunavut Water Board	Phyllis Beaulieu	(867)-360-6338 (867)-360-6369 (fax)
Spill Report Line (24 hr)		(867)-873-6924
Environment Canada		(867)-669-4644
WCB 24 Hour Accidents		(867)-873-7468
WCB Inspector	Peter Bengts	(867)-920-3888
Kugluktuk Health Center	Janet Carstairs	(867)-982-4531
Kugluktuk RCMP	Franco Radescho	(867)-982-1111 (867)-920-8130 (fax)
Indian and Northern Affairs Inspector	Andrew Keim	(867) 975-4289
NWT Contacts		
Wek'eezhii Land and Water Board	Regulatory Specialist	(867) 713-2500
Indian and Northern Affairs Inspector	Clint Ambrose	(867) 664-2794

5.0 RESPONSE ORGANIZATION

The following is a flow chart to illustrate the sequence of events if a hazardous material spill occurs at the Izok, Hood or Gondor Projects.



6.0 SPILL RESPONSE TEAM

All personnel will be informed of the contents of the Spill Contingency Plan and trained in the safe use of relevant spill prevention and clean up equipment. The Field Supervisor will appoint and train two persons to be the Spill Response Team. They will also be responsible to carry out the daily inspections of the fuel storage areas and equipment. Personnel on site will be limited, so for any large spill more people will be brought in to help, from surrounding exploration operations primarily from the High Lake Camp located 75km North of Izok and secondly from Yellowknife.

Spill Response Team Responsibilities

- Perform daily inspections at the Camp fuel and chemical storage areas and fuel hoses.
- Report any spill to Exploration Manager or designate.
- Containment of the spill and site remediation.

Field Supervisor Responsibilities

- Assume complete authority over the spill scene and coordinate all personnel involved.
- Evaluate spill situation and develop overall plan of action.
- Activate the spill contingency plan
- Immediately report the spill to the NWT 24-Hour Spill Report Line and regulatory agencies. (For spill greater than 1 litre)
- Fill out the Spill Report Form (for spill greater than 1 litre)
- Report the spill to the Project Manager. (For spill greater than 1 litre)
- If required, obtain additional manpower, equipment, and material if not available on site for spill response.

Manager, Environmental Affairs Responsibilities

- Provide regulatory agencies and Zinifex Canada Inc. management with information regarding the status of the clean up activities.
- Prepare and submit a report on the spill incident to regulatory agencies within 30 days of the event.

7.0 INITIAL ACTION

These instructions are to be followed by the first person on the spill scene.

1. Always be alert and consider your safety first.
2. Wear personal protective equipment
3. Do not smoke and eliminate all source of ignition
4. Assess the hazard to people in the vicinity of the spill.
5. If possible control danger to human life
6. Do not touch, smell, taste or get close to unknown substance.
7. If substance has been identified and if possible and safe to do so, try to stop the flow of material.
   - If filling is in progress, stop at once
   - If seeping through a small hole, use a patch kit if practical to do so.
   - If necessary and practical, pump the fuel from the leaking container into a refuge container
8. Immediately report the spill to the Field Supervisor and Spill Response Team by radio, satellite phone or in person.
9. Resume any effective action to contain, mitigate, or terminate the flow of the spilled material.
10. If in doubt about cleaning procedures or for a very large spill, regulatory agencies can help.

8.0 REPORTING

The person who notices the spill must immediately notify the Field Supervisor. As soon as possible the Field Supervisor will report the spill to:

- The 24-Hour Spill Report Line Phone (867) 920-8130, Fax (867) 873-6924
- Fill out the NWT Spill Report Form NWT1752/0202
- Notify the Manager, Environmental Affairs for a spill greater than 1 litre.
- Notify permitting authorities (Nunavut Water Board, Kitikmeot Inuit Association)

9.0 RESOURCE INVENTORY

A spill kit with a capacity of 240 litres will be located at the fuel tank area and will contain:

1 – 360 litre/79 gallon polyethylene drum
4 – oil absorbent booms (5” X 10’)
100 – oil absorbent sheets (16.5” X 20” X 3/8”)
1 – drain cover (36” X 36” X 1/16”)
1 – Caution tape (3” X 500’)
1 – 1 lb plugging compound
2 – pair Nitrile gloves
2 – pair Safety goggles
2 – pair Tyvek coveralls
1 – instruction booklet
10 – printed disposable bags (24” X 48”)
1- shovel (in remote spill kit only)
1- plastic tarp

Shovels, water pump, plastic pails, garbage bags, extra absorbent pad, drip pans will be placed on the side of the wall at the main office and the kitchen. Fire extinguishers are available throughout the camp facility.

Drill Spill Kits with a capacity of 25 L will contain the following:

10- Pads (17”x19”x2/8”)
3 - Socks (3”x4’)
1 - Pair of Gloves
1 - Disposal Bags
1 - Warning Sign
1 - Literature (Inventory List, MSDS, Instructions)

10.0 HAZARDOUS MATERIAL INVENTORY

This following section lists for each hazardous substance present on the project area, health hazards, spill procedure and disposal procedures. For more detailed information, refer to the MSDS sheets.

10.1. DIESEL FUEL, JET-B, GASOLINE

DIESEL, JET-B AND GASOLINE ARE HIGHLY FLAMMABLE

10.1.1. GENERAL PRECAUTIONS

- Do not smoke
- Will be easily ignited by heat, sparks or flames
- Gasoline and Jet-B are more volatile than diesel
- Explosion hazard indoors, in confined spaces and outdoors
- Vapours may form explosive mixtures with air
- Vapours may travel to source of ignition and flash back
- Most vapours are heavier than air. They will spread along ground and collect in low or confined areas.
- Keep pump or electrical equipment far away, be very careful with metallic tools that could sparks on rocks, wait for vapours to dissipate
- Inhalation may cause central nervous effects
- Aspiration into lungs may cause pneumonitis which can be fatal
- Eye and skin irritation
- Prolonged exposure has caused cancers in laboratory animals

10.1.2. SPILL ON LAND

- Build a containment berm, downslope, using, peat, moss, and soil material, bags filled with sand or rocks and place a plastic tarp at the foot of the berm to pool the spill. Spill can be pumped if in a large amount
- Soak up spilled substance by using absorbent pads
- Excavate the surface soil if necessary. If large excavation is needed, first contact regulatory agencies for approval.
- Remove spill substance splashed on vegetation by applying a thin dusting of Spag-zorb or other ultra-dry absorbent.
- Dispose hydrocarbons, absorbent pad, contaminated soil and cleaning material in an empty drum, seal it and label it.
- On marshy zones, don’t destroy vegetal cover, limit personnel and equipment. Remove pooled oil with absorbent pads and/or skimmer.

10.1.3. SPILL ON WATER

- Contain spill as close to release point as possible
- On small spill, deploy hydrophobic absorbent pads
- On larger spill and weather conditions permitting, use containment boom to limit fuel dispersion. Use a skimmer, pump or hydrophobic absorbent pads to remove fuel inside the boom.
- Dispose hydrocarbons, absorbent pad, contaminated soil and cleaning material in an empty drum, seal it and label it.

10.1.4. SPILL ON RIVERS AND STREAMS

- Prevent entry into water, if possible, by building a berm or trench.
- Intercept moving slicks in quiet areas using (absorbent) booms.
- Do not use absorbent booms/pads in fast currents and turbulent water.

10.1.5. SPILL ON ICE AND SNOW

- Build a containment berm of compacted snow around spill.
- If hydrocarbons are pooling on ice, pump large amount or use hydrophobic absorbent pads.
- Don't delay removing the spill as hydrocarbons could seep through cracks into the water.
- Scrape ice, shovel all contaminated snow in plastic buckets with lids or in drums. Dispose absorbent pads and other contaminated equipment in separated containers. Label and seal the containers.

10.1.6. SPILL DISPOSAL

- Contact Federal and Territorial regulatory agencies to identify appropriate disposal methods before disposing of contaminated material.

10.2. PROPANE

EXTREMELY FLAMMABLE

10.2.1. GENERAL PRECAUTIONS

- Do not smoke
- Cylinders may explode when heated
- Cylinders may rocket if ruptured
- Will be easily ignited by heat, sparks or flames

- Explosion hazard indoors, in confined spaces and outdoors
- Vapours may form explosive mixtures with air
- Vapours may travel to source of ignition and flash back
- Vapours from liquefied gas are initially heavier than air and spread along ground.
- Contact with gas or liquefied gas may cause burns, severe injuries and/or frostbite
- Keep pump or electrical equipment far away, be very careful with metallic tools that could sparks on rocks, wait for vapours to dissipate
- Liquid may cause frostbites and blisters
- Blurred vision if goes in the eyes
- Narcotic aphyxiant
- Dizziness, disorientation, excitation, headache, vomiting, unconsciousness if inhaled

10.2.2. Spill on Land, Water, Ice and Snow

- Eliminate all source of ignition
- Do not attempt to contain the propane release if not absolutely sure on what to do.
- Do not touch or walk through spilled material
- Stop leak if can be done without risk
- If possible, turn container so that gas escapes rather than liquid.
- Water spray can be used to knock down vapours but don't direct water at spill or source of leak
- Prevent spreading of vapours in confined areas
- If or when possible, confine spill with confinement berm. Throw absorbent pads into spill, retrieved them with gaffs or pitchforks.
- Small fire can be extinguished with dry chemical or CO_2.
- Dispose contaminated materials in a labeled drum.

10.2.3. Spill Disposal

- Contact Federal and Territorial regulatory agencies to identify appropriate disposal methods for detective equipment that resulted in the release.

10.3. Motor Oil, Hydraulic Oil, Transmission Fluid

10.3.1. General Precautions

- Avoid breathing mists, may cause lung irritation
- On skin may cause mild irritation

10.3.2. Spill Action

Soak up with absorbent material

- Disposed contaminated soil and material in sealed and labeled container
- Small amount can be incinerated
- Large amount to be disposed as hazardous waste.

10.4. ANTIFREEZE

10.4.1. GENERAL PRECAUTIONS

- Respiratory irritation with prolonged exposure.
- Kidney, liver and bladder problems reported in animals

10.4.2. SPILL ON LAND

- Soak up by using absorbent pads
- Dispose antifreeze, absorbent pad, contaminated soil and cleaning material in an empty drum, seal it and label it.
- On marshy zones, don't destroy vegetal cover, limit personnel and equipment. If possible remove pooled antifreeze with absorbent pads.

10.4.3. SPILL ON RIVERS AND STREAMS

- Prevent entry into water, if possible, by building a berm or trench.

10.4.4. SPILL ON ICE AND SNOW

- Build a containment berm of compacted snow around spill.
- If pooling on ice, pump large amount or use absorbent pads.
- Don't delay removing the spill as it can seep through cracks into the water.
- Scrape ice, shovel all contaminated snow into plastic buckets with lids or in drums.
- Dispose absorbent pads and other contaminated equipment in separated containers. Label and seal the containers.

10.4.5. SPILL DISPOSAL

- Contact Federal and Territorial regulatory agencies to identify appropriate disposal methods before disposing of contaminated material.

10.5. BATTERY ACID

10.5.1. GENERAL PRECAUTIONS

- Fire and explosion hazard
- Can be extinguished with dry chemical fire extinguisher.
- Ventilate area
- Remove combustible materials

- Mist inhalation hazard when being charged or spilled
- Acid burns to skin and eyes irritation

10.5.2. SPILL ACTION

- Neutralize with soda or lime
- Dispose battery and neutralized contaminated material in a sealed and labeled container
- Dispose as an hazardous waste

10.6. POLY-DRILL DR-133

10.6.1. GENERAL PRECAUTIONS

- May cause skin and eye irritation

10.6.2. SPILL ACTION

- Soak up with absorbent pad
- Dispose residue, contaminated soil and material in labeled containers. Solidify with sand.
- Small amount can be incinerated, otherwise dispose as hazardous waste.

10.7. 550-X POLYMER

10.7.1. GENERAL PRECAUTIONS

- Prolonged skin contact may cause irritation
- Possible eye irritation
- Ingestion may cause nausea, vomiting, cramps, diarrhea

10.7.2. SPILL ACTION

- Clean up spill with gloves. Scrape soil or surface and disposed in labeled containers
- Dispose as hazardous waste

FIGURES

MSDS SHEETS

SITE ABANDONMENT AND RESTORATION PLAN
EXPLORATION OPERATIONS
IZOK, HOOD AND GONDOR PROJECTS
NUNAVUT, CANADA

ABANONMENT AND RESTORATION PLAN
EXPLORATION OPERATIONS
IZOK, HOOD AND GONDOR PROJECTS
NUNAVUT, CANADA

June 5, 2006

Prepared By: _____ Date: June 5, 2006

Sandra Rickard – Geologist
Wolfden Resources Inc.

Reviewed By: _____ Date: November 15, 2007

Andrew Mitchell - Project Manager
Zinifex

Authorized By: _____ Date: November 15, 2007

John Begeman - Chief Operating Officer
Wolfden Resources Inc.

Wolfden Resources Inc.
401-1113 Jade Court, Thunder Bay ON P7B 6M7 • Tel: 807-346-1668 • Fax: 807-345-0284
E-mail: info@wolfdenresources.com • Web: www.wolfdenresources.com

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1.0 PREAMBLE

The Abandonment and Restoration Plan is effective from July 29, 2006 to July 29, 2008 and applies to the Izok/Hood Projects – Ham Lake Camp operated by Wolfden Resources in the Kitikmeot District of Nunavut, north latitude 65° 40' and west longitude 112° 50' . The project is under agreement with Nunavut Tunngavik Incorporated (NTI). Land Use permit's with the Kitimeot Inuit Association (KIA), Indian and Norther Affairs Canada (INAC) and Nunavut Water Board (NWB) have been submitted concurrent with the submission of this document.

The locations of the Izok and Hood drilling program areas are shown on Figures 1 to 3. The Ham Camp layout is shown on Figure 4.

The following formal distribution has been made of this plan: KIA, NWB, Ian Neill (Camp Manager, Wolfden Resources), John Begeman (Chief Operating Officer, Wolfden Resources Inc.) Ewan Downie (President and Chief Executive Officer – Wolfden Resources Inc.).

2.0 INTRODUCTION

This abandonment and restoration plan has been prepared as a document for the Ham Lake Camp, and for the drilling program to be carried within the Point Lake-Itchen Lake volcanic belt and the Takiyuak greenstone belt. The fly-in camp is located 265 km south of Kugluktuk and 360 km north of Yellowknife. The camp will support a population of up to 40 people and is open seasonably between mid February and mid December.

3.0 SCHEDULE

The seasonal shutdown of the camp site should take 5 days to complete and will take place after the drilling activities have ceased. The plan will be applied by the Izok/Hood projects personnel under the supervision of the field supervisor.

4.0 SITE INFRASTRUCTURE

The camp is located on the South and East Shores of Ham Lake. The camp was established by the previous operator of the exploration project, Inmet Mining Corporation (Inmet). The camp includes an accommodation complex, diamond drill core logging and storage facilities, garages, fuel storage facilities and is served by a 2,500 foot long gravel air strip. The layout of the camp is shown on Figure 4.

From an inventory provided by Inmet, following is a list of the major components of the camp and ancillary facilities.

Major Camp Equipment/Facilities

13 – Travco trailer units
8 – 4' x 44' camp matting
1 – Oil fired incinerator (serial no. 18162)
1 – 10' x 44' Generator Building
2 – Cummins 150 kW diesel generators (serial no's. 44670421 and 4460441)
1 – Steel garage – 20' x 24'
2 – Wood frame, steel clad core storage warehouses
1 – Wood frame, aluminum clad 12' x 36' skidded core shack

Fuel Tanks

7 – 12,000 gal fuel skid mounted fuel tanks

Mobile Equipment

1 – Caterpillar D-6 Bulldozer
1 – Champion Motor Grader
1 – Fuel Trailer
1- 1992 Ford Supercab F-350 trucks (diesel)

A map showing the regional setting of the project areas is provided on Figure 1. This Abandonment and Restoration Plan can be extended to drilling operations that will be carried out at some distance from the camp. The outlines of these areas are shown on Figures 2 and 3. A map showing the layout of the camp and airstrip is provided on Figure 4.

5.0 FINAL ABANDONMENT AND RESTORATION PLANS

5.1. BUILDINGS AND CONTENTS

Reusable equipment including tents, tent metal frames, stoves, foam rubber mats, the kitchen stoves, refrigerators and other appliances and equipment, showers, hot water tank, and other portable components will be packaged and flown out from project site to Yellowknife. The Travco trailers will be disposed of by burning and/or removed from site for use elsewhere or disposal. The wood framed buildings will be burned and the non-combustible hardware will be removed from site.

5.2. WATER SYSTEM

Pump, tanks and hoses will be drained, dismantled, packaged and flown out to Yellowknife. The wooden pump shack built to protect the pump will be burned as for the other wood structures.

5.3. ELECTRICAL SYSTEM

The generator shed will be inspected for residual hazardous waste (oil, grease) and will be drained of its fuel. Remaining waste fuel and oil will be collected in the containers labeled for that use and used through the summer. The shed will be dismantled and burned. The soil will be inspected for contamination. Electrical wires, sockets, etc…will be taken down and either returned with camp material to Yellowknife, or flown out to an approved municipal discharge.

5.4. FUEL AND CHEMICAL STORAGE FACILITIES

Fuel inventory will be managed so as to retain only a minimum quantity of fuel on site to permit closure activities to take place. On full abandonment of the site, remaining fuel will be pumped from the large tank(s) in to drums and removed from site. The large fuel tanks and smaller containers such as drums and day tanks will be scrapped and removed from site or removed from site and sold. Propane cylinders will be flown out as well to source.

Chemical stored on site will consist of drill additives, oil, grease and household cleaners. All drill additives will be stored in or by the drill foreman shed. Household cleaners will mainly be stored in the kitchen. Upon camp closure, any unused drilling additive, oil or grease will be returned to the drilling company warehouse. Half empty containers will be taken off site to be properly disposed in an approved discharge. Empty containers will be disposed with regular garbage.

5.5. WASTE FACILITY AND INCINERATOR

Once the camp is entirely dismantled, all remaining combustible waste stored at this site will be burned. The incinerator will be dismantled, reusable parts will be returned to Yellowknife and the barrel will be discarded in an approved municipal discharge.

5.6. GREYWATER SUMP

The kitchen-dry greywater sump will be filled back and leveled.

5.7. BLACKWATER SUMP

Not applicable. The outhouses consist of “pacto” style toilets where waste is collected in a plastic bag lined container and content burned on a daily basis.

5.8. HELICOPTER PAD

The helicopter pad consists of a wooden platform built of a 2x4 base with plywood cover. Soil around the helicopter pad will be inspected for contamination. The wood will be burned as per other wooden structures on site.

5.9. CAMP SITE

The camp site will have a final inspection. Areas showing too much wearing evidences will be covered with a layer of peat moss and lightly fertilized to promote natural growth. Drill core to be left on site will be properly stored and secured.

5.10. DRILLING AREA RESTORATION

The drill will be dismantled into its main components as per the drilling contractor procedure, packaged and secured along with its ancillary equipment and rods. The drill will be flown out to another project or to a storage site designated by the drilling contractor. All drill sites will be inspected for soil contamination. Any remaining waste will be taken to camp to be burned if possible or to be flown out to an approved municipal discharge. Greywater and sludge sumps will be filled and leveled. A layer of peat moss will be spread on top and slightly fertilized to promote natural growth. As much as possible, drill sites will be restored immediately after the drill has been moved to the next site and sumps have drained enough to be leveled.

5.11. DOCUMENTATION AND INSPECTION

Photos of camp and drill sites prior to building of drilling will be taken. Monitoring will be done during occupancy and photos taken. Once the site restored, it will again be documented with photos. Soil contaminated by hydrocarbons and unnoticed before abandonment will be treated as per the spill contingency plan. A final site inspection visit with community representatives, Land Use Inspector and in collaboration with NWB staff will be organized by the permit holder.

6.0 SEASONAL SHUTDOWN AND RESTORATION PLAN

6.1. BUILDINGS AND CONTENT

All equipment will be stored inside the wooden buildings to ensure they will withstand the winter season. Canvas tents will be secured and braced internally to ensure they will withstand snow and wind loads. Wood structures will be secured with nailed plywood over windows and doors to prevent inadvertent opening. Snowmachines, argo's and quads will be stored inside the core shacks and shop building.

6.2. WATER SYSTEM

Pump, tanks and hoses will be drained and dismantled. Rented equipment will be flown out to owner. Hoses will be rolled and stored in the kitchen.

6.3. ELECTRICAL SYSTEM

The generator shed will be inspected for remaining hazardous waste (oil, grease) and will be drained of its fuel. Remaining waste fuel and oil will be collected in the containers labeled for that usage and used through the summer. The generator will be winterized and prepared for startup in spring. The soil surrounding the generator shed will be inspected for impact. Electrical wires, plugs and sockets will be stored in the kitchen.

6.4. FUEL AND CHEMICAL STORAGE FACILITIES

An inventory of remaining fuel will be made and full drums will be inspected and secured for the winter. Empty drums will be flown out to source. Empty propane cylinders will be flown out to source. Chemical stored on site will consists of drill additives, oil, grease and household cleaners. All drill additives will be stored in or by the drill foreman shed and secured for the winter. Empty containers will be disposed with regular garbage. The soil of the areas will be inspected for contamination

6.5. WASTE FACILITY AND INCINERATOR

Once the camp has been dismantled and remaining buildings secured, all remaining combustible waste stored at this site will be burned. The incinerator will be dismantled and stored in the kitchen. The soil will be inspected for contamination.

6.6. GREYWATER SUMP

The greywater sump wood cover will be secured for winter.

6.7. BLACKWATER SUMP

Not applicable. The outhouses consist of “pacto” style toilets where waste is collected in a plastic bag lined container and content burned on a daily basis.

6.8. HELICOPTER PAD

The helicopter pad consists of a wooden platform built of a 2x4 base with plywood cover. Soil around the helicopter pad will be inspected for contamination.

6.9. CAMP SITE

Areas showing too much wearing evidences will be covered with a layer of peat moss and lightly fertilized to promote natural growth. Soil contaminated by hydrocarbons and unnoticed before abandonment will be treated as per the spill contingency plan. Drill core to be left on site will be properly stored and secured in cross stacked piles or wooden cores racks.

6.10. DRILLING AREA RESTORATION

The drill will be dismantled into its main components as per the drilling contractor procedure, packaged and secured along with its ancillary equipment and rods. The drill will be left on solid ground until next season. All drill sites will be inspected for soil contamination. Any remaining waste will be taken to camp to be burned if possible to be flown out to an approved municipal discharge. Greywater and sludge sumps will be filled and leveled. A layer of peat moss will be spread on top and slightly fertilized to promote natural growth. As much as practical, drill sites will be restored immediately after the drill has been moved to the next site and sumps have drained enough to be leveled.

6.11. DOCUMENTATION

Equipment and buildings left on site will be inventoried. Photos of camp and drill sites prior to drilling will be taken. Monitoring will be done during occupancy and photos taken. Once the site secured for the winter, it will again be documented with photos.

FIGURES