



**Elsa Reclamation and Development Company
Keno Hill Mine
Site Investigation and Improvements, Special Projects
Hazardous Waste Assessment**

Date:

March 31, 2009

Prepared for:

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1.0 INTRODUCTION

Hazardous wastes are primarily generated by industrial and manufacturing processes; however, they can also be generated from the commercial and institutional sectors, and from household sources. Hazardous wastes include a broad range of materials such as manufacturing residues (e.g. waste acids, contaminated sludges and complex chemicals), waste pesticides, PCBs in transformer and lamp ballasts, asbestos, motor oil, and other hydrocarbon products. As part of the implementation of the closure planning at the Keno Hill property, various buildings will require demolition (mill, storage area, residences, assay lab, bunk houses). Hazardous wastes need to be identified and documented and will require special handling in order to reduce adverse effects to water quality and human health from the hazardous wastes generated from the project remediation.

Previous studies and clean-up has occurred on the site specifically to:

- identify PCB transformers, capacitors and lamp ballasts. These hazardous materials along with the previous PCB storage area were subject to clean up, consolidation and disposal at an offsite approved special waste facility. However, it is expected that additional PCB containing materials may be discovered during building demolition (i.e. lamp ballasts containing PCBs);
- identify excess stored mill reagents and chemicals, and properly ship off-site for re-use or disposal. (Note: this work has been completed); and
- Identify other hazardous chemicals used at the site (laboratory chemicals, solvents, descalers) consolidate, package and ship to an offsite disposal facility. (Note: this work has been completed).

As part of closure planning an assessment of the management options and recommendations for closure alternatives will be required. A hazardous materials management plan addressing the handling, transportation, storage, disposal and emergency response is required prior to implementation of the closure plan. The objective of this assessment was to develop closure alternatives and recommendations for managing hazardous materials including PCB transformers, lead paint siding, asbestos siding, etc.

1.1 SCOPE

The following tasks were involved within the scope of this assessment:

Tasks 1 Hazard Assessment Development

- Review previous hazardous wastes reports (Keno Hill Property PCB Abatement Project, ACG 2005; Hazardous Materials Abatement Program, ACG, 2004) assess remaining hazardous material associated with existing buildings;
- List all potential hazardous wastes expected on-site as a result of building demolition. Preliminary list includes PCB lamp ballasts, lead paint siding, asbestos, mill or lab chemicals;
- Assess handling, transportation, storage and permitting requirements required for their management;
- Develop a *Human Health and Safety Plan* for the safe handling, storage and transportation of hazardous materials; and
- Conduct building inspection for potential hazardous materials and carry out limited sampling program to confirm presence or absence of hazardous materials.

Task 2 Hazardous Materials Decision Making Option Matrix

- Create hazardous materials inventory for various buildings and develop a waste management option and alternative matrix for proper handling, transportation, storage and permitting requirements (taking into account the Regulations and guidelines outlined by Government of Yukon (YG), Department of Environment). A separate work plan has been prepared to document non hazardous waste materials and identified locations for handling and storing this waste. Building/structure inventories will be coordinated.
- Develop disposal cost estimates for option matrix and develop a closure plan recommendation for a final set of management options with rationale.
- Review alternatives matrix and recommendations.

Task 3 Reporting

- Prepare draft report outlining findings of building hazardous material assessment (notes, photos), listing of potential hazardous wastes and waste management options and alternatives matrix, including cost estimates and recommended approach for handling, storing and disposal of hazardous materials on site. Report to include development of a *Human Health and Safety Plan* for onsite hazardous materials.
- Communicate decision and rationale to all relevant parties.
- Implement the management plan.

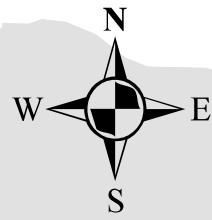
2.0 PHYSICAL SETTING

2.1 OVERALL SITE DESCRIPTION AND SITE USE

The Keno Hill Silver District is located in the vicinity of Keno City (63° 55'N, 135° 29'W), in central Yukon Territory, 354 km (by air) due north of Whitehorse. Access to the property is via a paved, two-lane highway from Whitehorse to Mayo (407 km) and an all-weather gravel road northeast from Mayo to Elsa (45 km); a total distance of 452 km. The property lies along the broad McQuesten River valley with three prominent hills to the south of the valley. Figure 1 shows the general project location within the Yukon Territory while Figure 2 shows the location on a smaller scale.

The Environmental Baseline Assessment (Public Works and Government Services Canada, March 2000), identified buildings within the Keno Hill Silver District containing hazardous materials. Most of the transportable contaminants have been removed, although fixed hazardous waste such as asbestos siding, lead paint, PCB ballasts, etc., have not. The Elsa Village site has, by far, the largest known amount of contaminated building materials; predominantly in the form of exterior cladding containing asbestos.

The Elsa Village is located on the northwestern toe of Galena Hill. The village was built on several flat terraces (essentially cut/fill areas connected by roadways). The village of Elsa originated in association with the 1929 opening of the Elsa mine. Since its opening the population of the village has fluctuated and at the peak over 400 people lived in Elsa just before the recent mine shutdown of 1989. There are several bone yards near the village as well as the historic Elsa dumpsite.

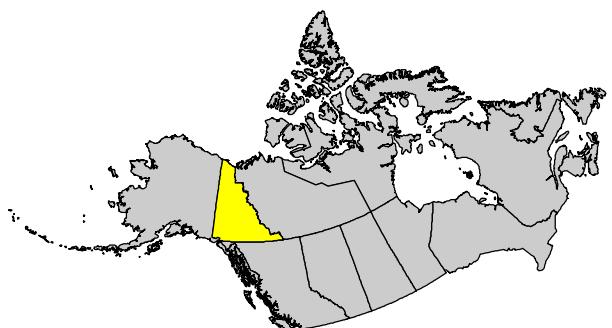


General Location Map of the Yukon Territory

Scale 1 : 6 000 000



Project Location



ELSA RECLAMATION AND
DEVELOPMENT COMPANY LTD.

KENO HILL SILVER DISTRICT

SITE LOCATION MAP

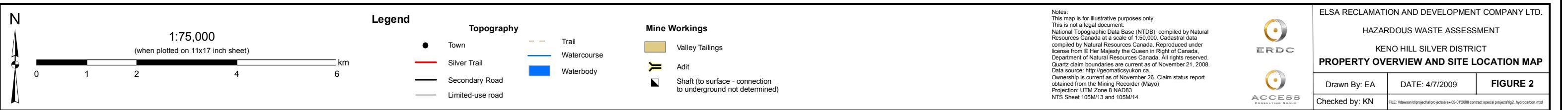
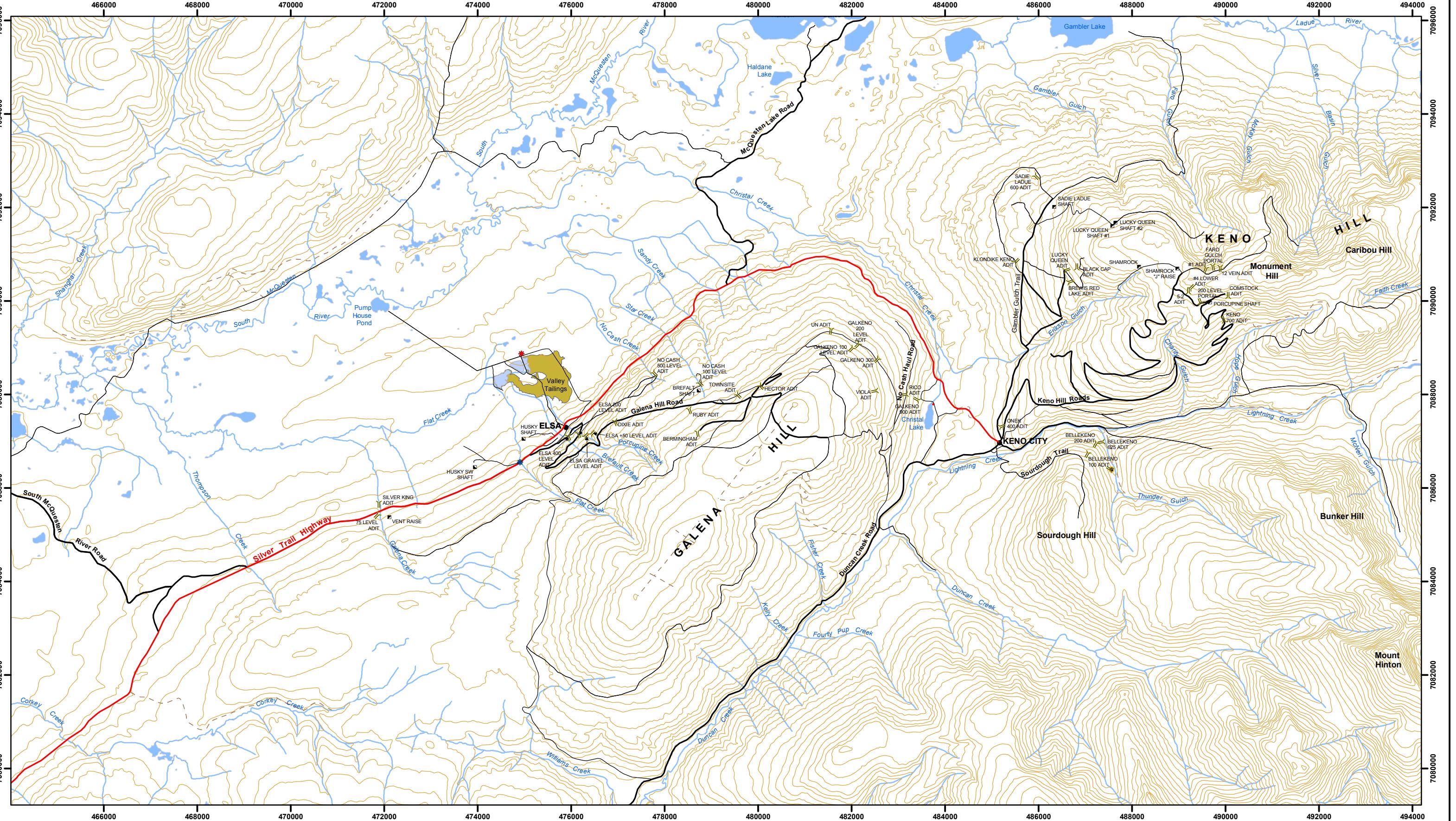


Drawn By: EA

FIGURE 1

Checked By: KN

DATE: 3/31/2009



3.0 PREVIOUS ASSESSMENTS

A previous site assessment entitled “*Keno Valley/Dublin Gulch Environmental Baseline Assessment Volumes I to V*” was completed by Environmental Services, Public Works and Government Services Canada (PWGSC) in March, 2000. The assessment was prepared for Waste Management Program, Indian and Northern Affairs Canada (INAC). The five volume report described current baseline environmental conditions including identifying hazardous and non hazardous waste throughout the Keno Valley and Dublin Gulch area. This report was referenced while conducting this assessment.

A baseline report entitled “*Baseline Environmental Report United Keno Hill Mines Property*” was prepared for Elsa Reclamation and Development Company Ltd. (ERDC), a wholly owned subsidiary of Alexco Resource Corp., in April 2007 by SRK Consulting Engineers and Scientists (SRK). Access Consulting Group (ACG) observed and documented areas where evidence of building contamination was visible while conducting the field inspections with SRK (Appendix G of SRK report). The SRK report confirms and updates areas of contamination identified by the March 2000 site assessment. The purpose of the assessment was to delineate the known environmental conditions and to serve as a basis for the development of closure and reclamation plans. It was recommended that further sampling be carried out in conjunction with closure planning studies. Information gathered in this baseline report was referenced while conducting the current hazardous waste assessment.

A copy of the ACG Building Contamination Inventory completed in 2007, as referenced above, is attached in Appendix C of this report. In conjunction with the 2007 report, this document updates the Building Contamination Inventory, focusing on the Elsa Village.

4.0 SITE INVESTIGATION

4.1 METHODOLOGY

The hazardous waste assessment was undertaken as per the Yukon *Contaminated Sites Regulation* (CSR) with particular attention to Section 8: *Site investigations* and Section 9: *Site Assessments*, and all associated Protocols, particularly: Protocol No. 2 *Analysis of Samples Taken in Relation to the Contaminated Sites Regulation* and Protocol No. 3 *Soil Sampling Procedures at Contaminated Sites*.

Buildings were entered and inspected for hazardous waste including any asbestos material, lead paint, chemicals, used oil, PCB ballasts, batteries, etc. Various ballasts from fluorescent lighting representative of each building were removed and compared to a capacitor/lamp ballast/transformer identification chart (Appendix D) to determine if PCBs could be present.

Swabs for metal analysis were collected from inside the buildings in a 10 cm by 10 cm metal area using a moist sterile cotton swab. The swab was then placed in supplied bags or jars. Paint chips were collected by scraping using clean field equipment and placed in laboratory bags. All samples were obtained with nitrile gloves, clean field equipment and placed in sealed sterile plastic bags provided by the laboratory.

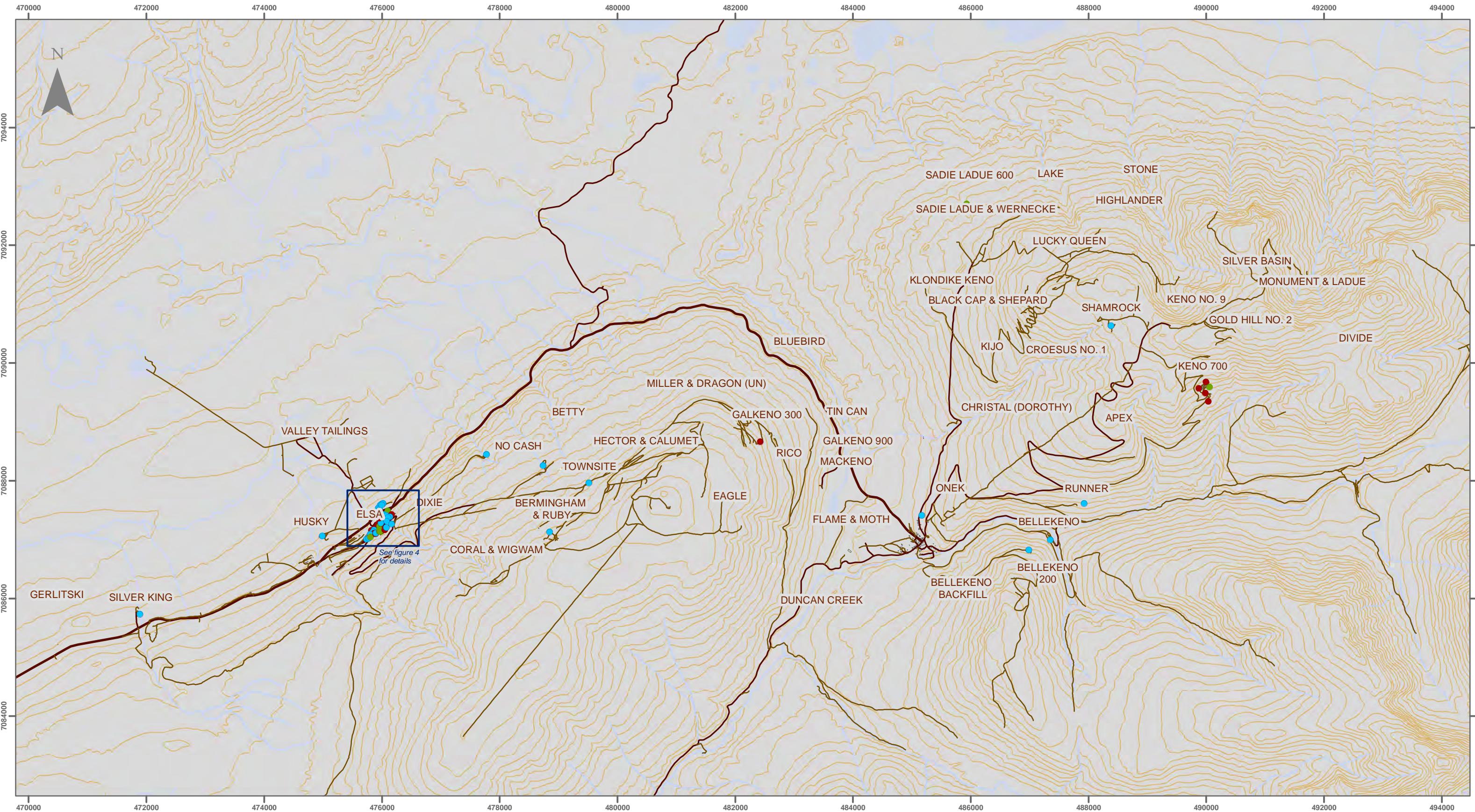
4.2 FIELD PROGRAM

ACG conducted the hazardous waste assessment on two separate occasions. The first assessment was conducted by Kurt Neunherz and Paul Inglis of ACG on August 25th to August 28th, 2008 and concentrated on conducting a building inspection for potential hazardous materials and carried out a limited sampling program.

The second assessment was conducted by Kurt Neunherz and Durand Cornett on January 30th to February 4th 2009. It was coordinated with the landfill work plan and focused on the building inventory and waste volume assessment. A building inspection for potential

hazardous materials was completed and a limited sampling program was conducted. The assessment focused primarily on the buildings throughout the Elsa town site.

The selected photographs in Appendix B were taken during the hazardous waste field assessment. Figure 3 and 4 outline the areas within the Keno Hill Silver District and within Elsa that were assessed for hazardous waste.



1:60,000*

* when plotted on 11x17 inch paper

National Topographic Data Base (NTDB) compiled by Natural Resources Canada at a scale of 1:50,000. Cadastral data compiled by Natural Resources Canada. Reproduced under license from © Her Majesty the Queen in Right of Canada, Department of Natural Resources Canada. All rights reserved.

Projection: UTM Zone 8 NAD83
NTS Sheet 105M/13 and 105M/14

0 1.5 3 6 km

- Inspected for Hazardous Waste
- Inspected and Sampled for Hazardous Waste - Does Not Exceed Yukon Contaminated Site Regulations
- Inspected and Sampled for Hazardous Waste - Exceeds Yukon Contaminated Site Regulations



ERDC



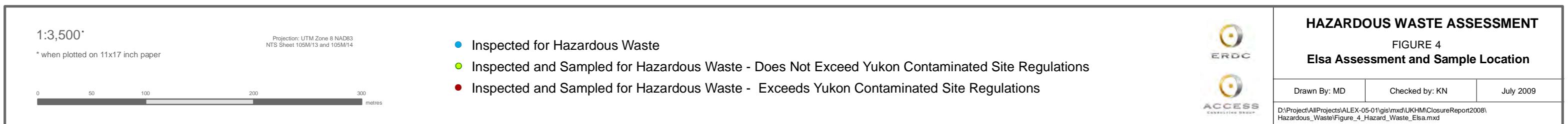
ACCESS
CONSULTING GROUP

HAZARDOUS WASTE ASSESSMENT

FIGURE 3
Assessment and Sample Location

Drawn By: MD	Checked by: KN	July 2009
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4.3 QUALITY ASSURANCE AND QUALITY CONTROL (QA/QC)

Quality assurance and quality control (QA/QC) practices were employed during the collection, storing, and shipping of soil samples. These practices include:

- Changed nitrile gloves between collection of samples, logging, and/or monitoring;
- Use of clean, laboratory supplied containers for sample collection;
- Sterile cotton swabs and distilled water was used for metal swab collection;
- Transportation/storage of samples in ice-packed, insulated coolers, with chain of custody documentation; and
- Using a certified and accredited laboratory.

4.4 SAMPLING AND FIELD SCREENING

Samples were collected according to Protocol No. 3: “Soil Sampling Procedures”. A standard sampling procedure was used as outlined under the CSR and the applicable American Society for Testing and Materials (ASTM) standards (D 4547-03¹). Limited samples from wall paint, asbestos siding from buildings, asbestos from piping and tiles as well as swabs from interior metal were collected throughout the Keno Hill Silver District.

Field screening was not conducted during the hazardous waste assessment.

4.5 LABORATORY ANALYTICAL PROGRAM

Thirty-five (35) samples were submitted to Bodycote Testing Group in Surrey, British Columbia; a CAEAL certified laboratory as per CSR Protocol No. 2. Based on field observations, the following analyses were conducted:

- Twenty seven (27) samples were analyzed for asbestos types and concentrations.

¹ Standard Guide for Sampling Waste and Soils for Volatile Organic Compounds

- Three (3) paint samples from the fire assay office, No. 1 bunkhouse and Keno 700 bunkhouse were analyzed for lead concentrations and two of the three samples were analyzed further for lead TCLP leachate concentrations.
- The three (3) swab samples from the boiler plant, crusher and generator building within Elsa were analyzed for Total Metals using strong acid digestion.

All the remaining samples were stored in insulated coolers. Figure 3 and 4 outline the areas that were sampled.

5.0 REGULATORY CRITERIA APPLICABLE TO THE SITE

Parameters analyzed were compared to the CSR “*Schedule 1 – Generic Numerical Soil Standards and Schedule 2 – Matrix Numerical*” Soil Standards under the Industrial land use (IL) listing.

Applicable industrial land use standards were applied to the site. This included Human Health Protection Standards: intake of contaminated soil and Environmental Protection Standards: groundwater flow to surface water used by aquatic life – freshwater (as majority of the samples collected were within 1 km of a surface water body) as well as Toxicity to soil invertebrates and plants. Human health protection standards for groundwater used for drinking water was not used as a standard since there were no wells used for drinking water within 1.5 km of the sample locations.

Metal leachate results were compared to the *Canadian Environmental Act (CEA) “Export and Import of Hazardous Waste and Hazardous Recyclable Material Regulations, 2005: Schedule 6: Hazardous Constituents Controlled Under Leachate Test and Regulation Limits”*.

There are no specific CSR values for asbestos. The Yukon Workers’ Compensation Health and Safety Board (WCB) identify any concentration of asbestos in a material or product as a hazard.

5.1 SUMMARY OF APPLICABLE SITE CRITERIA

Metals:	CSR Schedule 1 and 2 for industrial land use;
Metal leachate:	CEA Schedule 6 for “ <i>Export and Import of Hazardous Waste and Hazardous Recyclable Material Regulations</i> ”.

6.0 FINDINGS OF THE HAZARDOUS WASTE ASSESSMENT

6.1 BUILDING ASSESSMENT

The building inspections conducted in January and August, 2008 identified a number of hazardous materials still present in the Keno Hill Silver District. The list includes batteries, asbestos, PCB lamp ballasts, lead paint and containers with unknown chemicals. There are approximately 211 buildings throughout the Keno Hill Silver District, and the majority of the buildings were investigated to get an idea of the typical hazardous waste remaining. Table 1 below outlines the findings of the building field assessment.

Table 1 Building Contamination Inventory

Location			Description of Contamination Suspect					
Site No. ¹	Site Name ¹	Building Number ¹	Site Name	Ballasts	Asbestos	Construction	Other	Samples/Results
78	Elsa	1	Green Shack	None	Asbestos tar paper exterior	Wood frame construction	Small building; almost collapsed	—
		2	Shack #2 beside the Sawmill	None	Asbestos tar paper exterior	Wood frame construction	Small building	—
		3	Shack #1 beside the Sawmill	None	Asbestos tar paper exterior	Wood frame construction	—	—
		4	Sawmill	~5-7 Ballasts; Advance Ballasts; PCB's unknown.	None	Aluminium exterior; painted wood interior	—	—
		5	Carpentry Shop	~10-13 Ballasts. PCB's unknown	None	Metal sheeting on exterior	—	—
		6	Wood Storage	None	Asbestos tar paper exterior	Wood frame construction	—	Samples taken - 75-80% Chrysotile Asbestos
		7	New Bunkhouse	Ballasts Present; No PCB's	None	Aluminium exterior and dry wall fibers	—	Samples taken - No asbestos detected
		8	Geology and Engineering Office	~41 Ballasts, 21 with PCB's and 20 with PCB's unknown	None	Exterior wood construction	—	—
		10	No.5 Bunkhouse	None	Potential exterior asbestos tiles	Potential lead paint	—	—
		12	Pink and White Bunkhouse	None	Asbestos fibers on exterior walls	Potential lead paint	—	Samples taken - 75-80% Chrysotile Asbestos
		13	No.1 Bunkhouse	None	None	Lead pain on interior wood	—	Samples taken - Lead
		14	Union Shop	~17-20 Ballasts; type unknown; PCB's unknown	None	Wood construction and metal siding ; potential lead paint on interior wood	—	—
		15	Snack Bar	~7 Ballasts; No PCB's	Asbestos tar paper along foundation	Wood construction with metal roof	—	—
		16	Dining Hall	None	None	Potential lead paint; wood frame with vinyl	—	—
		17	Dry/Change Buliding	~30 Ballasts ; Advance Ballast; unknown PCB's	None	Wood and metal construction	—	—
		19	Fire Assay Office	~20 Ballasts; unknown PCB's	None	Lead paint	—	Sample taken- Lead
		20	Floating Mill/Crusher House	15-20 Ballasts; unknown PCB's	Abesots fibres	Wood and metal construction	—	Samples taken- 75-80% Asbestos fibres; metal swabs
		21	Boiler Plant	~15 Ballasts; PCB's unknown	Piping coated in asbestos;asbestos in building insulation	Aluminum metal exterior and scrap metal	—	Samples taken- 60-65% Amosite Asbestos; metal swabs
		22	No. 1 Garage/Truck Garage	~14 Ballasts in use	Asbestos tar paper exterior	Wood frame and metal siding	—	Samples taken- 70-75% Chrysotile Asbestos Fibres
		23	No. 2 Garage	None	Asbestos tar paper exterior	Wood frame and siding	—	—
		24	Machine Shop	—	—	Demolished	—	—
		25	Light Vehicle Shop	None	Asbestos tar paper exterior	Wood frame construction	—	Samples taken
		26	Rescue Building	None	None	Aluminum exterior	—	—
		30	Yellow Exploration Building	None	Asbestos tar paper exterior	—	—	—
		31	Medical Building	1 Ballast; No PCB's	None	Metal exterior	—	—
		32	Elsa Market	2 Ballasts; General Canadian Electric; presense of PCB's.	None	Wood frame construction and exterior vinyl	—	Samples taken - Asbestos fibres not detected
		33	Fire Hall	New Ballasts	Asbestos tar paper exterior	Potential lead paint	Building used as a gym	Samples taken- 70-75% Chrysotile Asbestos Fibres
		34	Building #34	1 Ballast; PCB's unknown	Asbestos tar paper exterior	Wood frame with metal siding	—	—
		35	Generator Building	2 Ballasts; PCB's unknown	Pipe wrapped in asbestos insulation	Wood frame and metal siding	—	Sample taken- 60-65% Amosite Asbestos Fibres; metal swabs
		36	Vehicle and Heavy Equipment Warehouse	None	None	Wood frame and metal siding	—	Samples taken - Asbestos Fibres not detected
		38	Administration Building	~30 Ballasts with PCB's	Asbestos interior	Potential lead paint; wood framed construction	—	Samples taken - 50-55% Chrysotile Asbestos Fibres
		39	Men's Staffhouse	None	Asbestos tar paper exterior	Potential lead paint; wood framed construction	—	Samples taken - 55-60% Chrysotile Asbestos Fibres
		41	Apartment Building	None	Asbestos tar paper exterior	Potential lead paint; wood framed construction	—	—
		42	Garage	None	Asbestos tar paper	Potential lead paint; wood framed construction	—	—
1	Silver King		Silver King	None	None	Wood frame and metal siding	—	—
2	Husky		Husky	~15 large, ~2 smaller Ballasts; No PCB's	None	Wood frame with metal siding; potential lead paint	Lots of electrical equipment present	—
4	Dixie		Dixie	None	4x12 asbestos board and asbestos tiles	Wood frame with metal siding; potential lead paint	—	Samples taken - 50-55% Chrysotile Asbestos Fibres
6	Bermingham (Ruby)		Burmington	None	Potential exterior asbestos tiles	Wood frame and metal siding	—	—
7	No Cash 100		No Cash 100	None	Asbestos board in storage shed beside boiler shack	Wood frame and metal siding	—	—
7	No Cash 500		No Cash 500	None	Asbestos tar paper	Wood frame and metal siding	—	—
11	Galkeno 300		Galkeno 300	None	Asbestos Board (Hard) insulation/asbestos sheeting	Wood frame and aluminum exterior	—	Samples taken - 50-55% Chrysotile Asbestos Fibres
19	Onek		Onek	None	Asbestos tar paper exterior with wood frame construction	Metal machinery (engines, boiler)	Piles of rubble and debris; some buildings are unstable, one building has collapsed	—
22	Bellekeno 625		Bellokeno 625	None	None	Wood and steel construction and aluminum siding	—	—
22	Bellekeno 200		Bellokeno 200	None	None	Wood frame construction	—	—
28	Shamrock		Shamrock	None	None	Wood frame construction	—	—
32	Keno 700		Keno 700	None	Two buildings with asbestos tiling	Aluminum and asbestos exterior, painted wood interior;	Boiler components present	Samples taken- Lead
55	Runer		Runer	None	None	Wood frame construction	Three partially filled drums; one partially filled bucket, 2 batteries and wiper fluid	—
76	Townsite		Townsite	None	None	Wood frame construction	—	Samples taken- No Asbestos Fibres detected
77	Sadie Ladue		Sadie Ladue	No Buildings	None	—	—	—

¹ Site and Building Numbers Correspond to the 'Keno Valley/Dublin Gulch Environmental Baseline Assessment' by Environmental Services Public Works and Government Services Canada, May 2000

6.2 LABORATORY ANALYTICAL RESULTS

Complete laboratory analytical result reports are presented in Appendix A.

6.2.1 Metal Parameters

Laboratory analytical results for all the swabs collected off metal from the interior of three buildings in Elsa exceeded the applicable CSR concentrations for antimony, arsenic, cadmium, chromium, copper, lead, silver and zinc.

Molybdenum concentrations from the boiler plant sample and selenium concentrations from the mill/crusher building sample also exceeded the CSR levels.

Metal analytical results are summarized in Table 2. Laboratory analysis reports are included in Appendix A.

6.2.2 Lead Paint

Laboratory analytical results for two of the three paint samples submitted for analysis exceeded CSR criteria for lead concentrations. Two samples were submitted for TCLP lead leachate and did not exceed applicable criteria.

Lead paint analytical results are summarized in Table 2. Laboratory analysis reports are included in Appendix A.

6.2.3 Asbestos

Laboratory analytical results identified concentrations of Chrysotile asbestos fibers in seventeen (17) of the twenty seven (27) samples submitted for analysis. Two (2) of the

twenty seven (27) samples submitted for asbestos analysis had concentrations of Amosite asbestos fibers present.

Asbestos analytical results are summarized in Table 3. Laboratory analysis reports are included in Appendix A. Figures 3 and 4 identify the samples that either exceeded or did not exceed criteria for asbestos.

Table 2: Laboratory Analytical Results - Metals

Site	Building 13 (No. 1 Bunkhouse)	Building 19 (Fire Assay Office)	Keno 700 Bunkhouse	Building 21 (Boiler Plant)	Building 20 (Mill/Crusher Lower)	Building 35 (Generator Building)	Criteria ^a	Units	Detection Limits
	Interior Paint Chip	Interior Paint Chip	Interior Paint Chip	Swab	Swab	Swab			
Parameters									
Aluminum	nt	nt	nt	6900	1950	15100	ns	ug	1
Antimony	nt	nt	nt	201	1590	520	40	ug	0.5
Arsenic	nt	nt	nt	205	3210	337	20	ug	0.2
Barium	nt	nt	nt	431	151	266	2000	ug	0.3
Beryllium	nt	nt	nt	0.36	0.68	1.12	8	ug	0.01
Cadmium	nt	nt	nt	23.2	336	37.4	2-150 ^b	ug	0.05
Calcium	nt	nt	nt	11700	20900	16000	ns	ug	2
Chromium	nt	nt	nt	784	70.6	377	60	ug	0.04
Cobalt	nt	nt	nt	134	95.9	103	300	ug	0.05
Copper	nt	nt	nt	1780	2100	302	90-250 ^b	ug	0.05
Iron	nt	nt	nt	258000	276000	259000	ns	ug	1
Lead	17.6	2370	2930	2920	77000	5520	150-40,000 ^b	ug	0.3
Lead (Leachate)	<0.001	1.13	nt	nt	nt	5 ^c	mg/L		0.001
Magnesium	nt	nt	nt	2620	24300	2800	ns	ug	1
Manganese	nt	nt	nt	3170	39600	5680	ns	ug	0.05
Molybdenum	nt	nt	nt	53	8.72	39.5	40	ug	0.05
Nickel	nt	nt	nt	125	157	121	500	ug	0.1
Phosphorus	nt	nt	nt	5840	1660	5430	ns	ug	0.5
Potassium	nt	nt	nt	592	534	802	ns	ug	5
Selenium	nt	nt	nt	1.8	73.7	9.8	10	ug	0.3
Silicon	nt	nt	nt	2640	3490	4960	ns	ug	1
Silver	nt	nt	nt	127	97.4	115	40	ug	0.2
Sodium	nt	nt	nt	5700	6680	7540	ns	ug	1
Sulfur	nt	nt	nt	2730	60200	12400	ns	ug	1
Tellurium	nt	nt	nt	240	<0.4	<0.4	ns	ug	0.4
Thallium	nt	nt	nt	63.9	47.7	98.8	ns	ug	0.3
Tin	nt	nt	nt	222	121	116	300	ug	0.2
Titanium	nt	nt	nt	82.9	24.7	178	ns	ug	0.05
Vanadium	nt	nt	nt	229	174	83.4	ns	ug	0.1
Zinc	nt	nt	nt	4370	15200	2770	150-300 ^b	ug	0.1
Zirconium	nt	nt	nt	143	134	135	ns	ug	0.05

^a Industrial Land Use Standards, from Schedule 1 and Schedule 2 of the Yukon Contaminated Sites Regulations.

^b pH influenced soil standards under the Contaminated Sites Regulations

^c Criteria for leachable metals falls under Schedule 6 "Hazardous Constituents Controlled under Leachate Test and Regulated Limits" of the Canadian Environmental Protection Act, 1999

* Groundwater used for drinking water is not within 1.5 km of any sites sampled. It is assumed the sites are within 1 km of surface water.

Peach = Value exceeds Contaminated Site Regulations

ns = not specified

nt = not tested

Table 3: Laboratory Analytical Results - Asbestos

Sites	Asbestos (Type)	Results (%)
Keno 700 Bunkhouse	Chrysotile Asbestos Fibres	1 — 5
Keno 700 Post Office	Chrysotile Asbestos Fibres	80-85
Keno 700 Pipeline	Asbestos Fibres	None Detected
Keno 700 Mess Hall*	Chrysotile Asbestos Fibres	80-85
Keno 700 Mess Hall*	Chrysotile Asbestos Fibres	60-65
Townsite Flooring	Asbestos Fibres	None Detected
Dixie Sheeting	Chrysotile Asbestos Fibres	50-55
G300 Hanger Board	Chrysotile Asbestos Fibres	50-55
Elsa Maintenance Garage (Old Shop) *	Chrysotile Asbestos Fibres	80-85
Elsa Maintenance Garage (Old Shop) *	Chrysotile Asbestos Fibres	60-65
Building 20 Mill/Crusher Lower	Asbestos Fibres	None Detected
Building 35 Generator Building	Asbestos Fibres	None Detected
To Pump House Piping	Asbestos Fibres	None Detected
Building 35 Pipe Insulation*	Amosite Asbestos Fibres	60-65
Building 35 Pipe Insulation*	Asbestos Fibres	None Detected
Building 32 Elsa Market	Asbestos Fibres	None Detected
Piping from Building # 25 to # 20	Asbestos Fibres	None Detected
Building 20 Mill Piping	Asbestos Fibres	None Detected
Building 21 Boiler Plant Piping	Amosite Asbestos Fibres	60-65
Building 33 Fire Hall	Chrysotile Asbestos Fibres	70-75
Building 12 Bunkhouse	Chrysotile Asbestos Fibres	75-80
Building 20 Mill Lower Level	Chrysotile Asbestos Fibres	75-80
Building 25 Light Vehicle Shop	Chrysotile Asbestos Fibres	70-75
Building 22 No. 1 Garage	Chrysotile Asbestos Fibres	70-75
Building 20 Mill Upper Level	Chrysotile Asbestos Fibres	75-80
Building 6 Wood Storage Shed	Chrysotile Asbestos Fibres	75-80
Building 39 Mens Staff House	Chrysotile Asbestos Fibres	55-60
Building 38 Administration	Chrysotile Asbestos Fibres	50-55
Building 7 New Bunkhouse	Asbestos Fibres	None Detected
Building 36 Vehicle Warehouse	Asbestos Fibres	None Detected

* Sample contained to different types of material, analyzed separately

7.0 HAZARDOUS WASTE CLOSURE PLANS

After discussions with Yukon WCB and with YG Department of Environment, a demolition plan needed to be developed outlining worker safety and the handling of hazardous materials. The plan (see demolition plan in Appendix E) focuses on the protection of workers, the public and the environment. The company's current project Health and Safety policies, procedures, field safety and environmental manual (see Attachment 4 in Appendix E) is being followed onsite and will be updated for the demolition of buildings with hazardous waste. All appropriate handling, storage and disposal of hazardous waste will be completed in accordance with the applicable regulations and permits. Correspondence from YG Department of Environment indicated they will issue appropriate permits associated with the disposal (vary them if required) to handle the hazardous waste (lead paint, asbestos, etc.).

After meeting with Yukon WCB, it has been determined that the best way to protect the workers and the public from asbestos is to minimize the handling of the hazardous waste. The optimal disposal plan of the buildings in the district (including Elsa) will include but not be limited to:

- Proper worker training;
- Proper personal protective equipment, including a respiratory plan;
- Initiate applicable safety meetings;
- Assume all buildings contain asbestos;
- The removal, proper storage and disposal of all potential building PCB ballasts;
- The removal, proper storage and disposal of any other hazardous waste from the buildings;
- Thoroughly watering buildings during demolition, transporting and disposal to keep the dust down;
- Transporting and moving the wetted rubble as little as possible, and tarping loads of waste;
- Disposing of the waste in several approved landfills located throughout the district, this may include burying the buildings on site to reduce handling (i.e. not consolidating waste);
- Landfills will be properly decommissioned as well as staked and marked on a map using a GPS; and

- Implement proper decontamination procedures.

The above issues have been developed into the demolition plan (Appendix E) for the district and the health and safety plan will be updated as required.

8.0 CONCLUSIONS

In August 2008 and January/February 2009, ACG conducted the hazardous waste field assessment throughout the Keno Hill Silver District. The field program consisted of a building inspection for potential hazardous materials as well as completing a limited sampling program to confirm the presence or absence of hazardous materials.

The hazardous waste assessment was completed in conjunction with the landfill requirements. The report entitled “*Site Investigation and Improvements, Special Projects; Landfill Requirements*” by ACG dated March 31, 2009 identified a total of 211 buildings ranging in size throughout the Keno Hill Silver District. The report also estimated that 43,985 m³ of building waste is required to be buried throughout the district, including Elsa. Hazardous waste including batteries, partially full drums with unknown material, asbestos, PCB lamp ballasts, lead paint and containers with unknown chemicals were identified in buildings throughout the district.

Limited samples from wall paint, asbestos siding from buildings, asbestos from piping and tiles as well as swabs from interior metal were collected throughout the Keno Hill Silver District. The samples were submitted for laboratory analyses Bodycote Testing Group, in Surrey, British Columbia, with the following results:

- Metals: Antimony, arsenic, cadmium, chromium, copper, lead, silver and zinc concentrations in all three swab samples exceeded applicable CSR standards. Molybdenum concentrations from the boiler plant sample and selenium concentrations from the mill/crusher building sample also exceeded the CSR levels.
- Lead Paint: two of the three paint samples submitted for lead analysis exceeded CSR criteria. Two samples were submitted for TCLP lead leachate and did not exceed applicable criteria.
- Asbestos: Chrysotile or Amosite asbestos fiber concentrations were identified in nineteen (19) of the twenty seven (27) samples submitted for analysis.

All the objectives and tasks outlined in the work plan were assessed and completed. The current health and safety plan will need to be updated and implemented. Working with Yukon WCB and with YG Department of Environment, a demolition plan will be finalized outlining protection and safety of the workers, the public and the environment.

9.0 REFERENCES

Access Mining Consultants Ltd., June 3, 1996. “*United Keno Hill Mines Limited, Site Characterization Report, Report No. UKH96/01.*”

Environment Services, Public Works and Government Services Canada, March, 2000.
“*Keno Valley/Dublin Gulch Environmental Baseline Assessment.*” Prepared for Indian and Northern Affairs Canada.

SRK Consulting (Canada) Inc., January 2007. “*Draft Baseline Environmental Report, United Keno Hill Mines Property.*” Prepared for Alexco Resource Corp.

10.0 REPORT LIMITATIONS

This report was prepared for the exclusive use of Elsa Reclamation and Development Company Ltd., and is based on data and information collected during the Environmental Site Assessment sampling events completed in August 2008 and January/February 2009. Access Consulting Group has followed standard professional procedures in conducting the assessment and in preparing the contents of this report. The material in this report reflects Access Consulting Group's best judgment in light of the information available at the time of the preparation of this report. Any use that a third party makes of this report, or any reliance on decisions to be made based on it, is the responsibility of the third parties. Access Consulting Group accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report. Access Consulting Group believes that the contents of this report are substantively correct.

The information and data contained in this report, including without limitation, the results of any sampling and analyses conducted by Access Consulting Group, are based solely on the conditions observed at the time of the field assessment and have been developed or obtained through the exercise of Access Consulting Group's professional judgment and are set to the best of Access Consulting Group's knowledge, information, and belief. Although every effort has been made to confirm that all such information and data is factual, complete and accurate, Access Consulting Group offers no guarantees or warranties, either expressed or implied, with respect to such information or data.

Access Consulting Group shall not by the act of issuing this report be deemed to have represented that any sampling and analyses conducted by it have been exhaustive or will identify all contaminants or contamination of the site, and persons relying on the results thereof do so at their own risk.

Should you have any questions regarding this report, or require further information, please contact the undersigned at Access Consulting Group in Whitehorse, Yukon.

Respectfully submitted,

ACCESS CONSULTING GROUP
A registered trade name for Access Mining Consultants Ltd.



Kurt Neunherz, BIE (Applied)
Environmental Scientist



Dan D. Cornett, B.Sc., R.P. Bio., CCEP
President

Appendix A

Laboratory Analytical Results

Report Transmission Cover Page

Bill To:	Access Mining Consultants Ltd.	Project:	Lot ID: 667926
Report To:	Access Mining Consultants Ltd.	ID:	ALEX-08-ESP-01-V
	#3 Calcite Business Centre	Name:	Elsa Special Project HW
	151 Industrial Road	Location:	Elsa
	Whitehorse, YT, Canada	LSD:	
	Y1A 2V3	P.O.:	4817
	Attn: Kurt Neunherz	Acct code:	(Additional)
Sampled By:	K.Neunherz		
Company:	ACG		

Contact & Affiliation	Address	Delivery Commitments	
Accounts Payable Access Mining Consultants Ltd.	151 Industrial Road, 3 Calcite Business Whitehorse, Yukon Territory Y1A 2V3 Phone: (867) 668-6463 Fax: (867) 667-6680 Email: n/a	On [Lot Approval and Final Test Report Approval] send (Invoice) by Post	M
Kurt Neunherz Access Mining Consultants Ltd.	151 Industrial Road, #3 Calcite Business Whitehorse, Yukon Territory Y1A 2V3 Phone: (867) 668-6463 Fax: (867) 667-6680 Email: kurt@accessconsulting.ca	On [Lot Verification] send (COA) by Email - Single Report On [Report Approval] send (Test Report) by Email - Single Report On [Report Approval] send (Test Report) by Email - Single Report On [Report Approval] send (Test Report) by Email - Single Report On [Report Approval] send (Test Report) by Email - Single Report On [Report Approval] send (Test Report) by Email - Single Report On [Report Approval] send (Test Report) by Email - Single Report	

Notes To Clients:

- Asbestos analysis was performed by a subcontract laboratory. See attached 2 page report from BTG-Pointe-Claire.
- Report was issued to include addition of TCPB analysis on samples 1 and 2, requested by Access on February 26/09. Report 1195562 is an addendum to report 1192812.

The information contained on this and all other pages transmitted, is intended for the addressee only and is considered confidential.

If the reader is not the intended recipient, you are hereby notified that any use, dissemination, distribution or copy of this transmission is strictly prohibited.

If you receive this transmission by error, or if this transmission is not satisfactory, please notify us by telephone.

Sample Custody

Bill To: Access Mining Consultants Ltd. Project: **667926**
Report To: Access Mining Consultants Ltd. ID: ALEX-08-ESP-01-V
#3 Calcite Business Centre Name: Elsa Special Project HW
151 Industrial Road Location: Elsa
Whitehorse, YT, Canada LSD:
Y1A 2V3 P.O.: 4817
Attn: Kurt Neunherz Acct code: (Additional)
Sampled By: K.Neunherz
Company: ACG

Sample Disposal Date: March 22, 2009

All samples will be stored until this date unless other instructions are received. Please indicate other requirements below and return this form to the address or fax number on the bottom of this page.

Extend Sample Storage Until _____ (MM/DD/YY)

The following charges apply to extended sample storage:

Storage for 1 to 5 samples per month	\$ 10.00
Storage for 6 to 20 samples per month	\$ 15.00
Storage for 21 to 50 samples per month	\$ 30.00
Storage for 51 to 200 samples per month	\$ 60.00
Storage for more than 200 samples per month	\$ 110.00

Return Sample, collect, to the address below via:

- Greyhound
 Loomis
 Purolator
 Other (specify) _____

Name	_____
Company	_____
Address	_____
Phone	_____
Fax	_____
Signature	_____

Analytical Report

Bill To: Access Mining Consultants Ltd. Project: **667926**
 Report To: Access Mining Consultants Ltd. ID: ALEX-08-ESP-01-V
 #3 Calcite Business Centre Name: Elsa Special Project HW
 151 Industrial Road Location: Elsa
 Whitehorse, YT, Canada LSD:
 Y1A 2V3 P.O.: 4817
 Attn: Kurt Neunherz Acct code: (Additional)
 Sampled By: K.Neunherz
 Company: ACG

Reference Number	667926-1	667926-2
Sample Date	Jan 31, 2009	Jan 31, 2009
Sample Time	NA	NA
Sample Location		
Sample Description	Building 13 - Interior Paint / #1 Bunkhouse Solids	Building 19 - Interior Paint / Fire Assay Office Solids
Matrix		

Analyte	Units	Results	Results	Results	Nominal Detection Limit
Leachate Inorganic - TCLP					
Lead	TCLP Leachate	mg/L	<0.001	1.13	0.001
Metals Strong Acid Digestion					
Lead	Strong Acid Extractable	ug/g	17.6	2370	

Analytical Report

Bill To: Access Mining Consultants Ltd. Project: **667926**
 Report To: Access Mining Consultants Ltd. ID: ALEX-08-ESP-01-V
 #3 Calcite Business Centre Name: Elsa Special Project HW
 151 Industrial Road Location: Elsa
 Whitehorse, YT, Canada LSD:
 Y1A 2V3 P.O.: 4817
 Attn: Kurt Neunherz Acct code: (Additional)
 Sampled By: K.Neunherz
 Company: ACG

Lot ID: **667926**
 Control Number:
 Date Received: Feb 10, 2009
 Date Reported: Mar 4, 2009
 Report Number: 1195562

Reference Number	667926-3	667926-4	667926-5
Sample Date	Jan 31, 2009	Jan 31, 2009	Jan 31, 2009
Sample Time	NA	NA	NA
Sample Location			
Sample Description	Building 21 - Boiler Plant / Metal Frame	Building 20 - Mill/Crusher Lower / Metal Frame	Building 35 - Generator Building / Metal Frame
Matrix	Solids	Solids	Solids

Analyte	Units	Results	Results	Results	Nominal Detection Limit
Air Quality Metals					
Aluminum	Strong Acid Extractable ug	6900	1950	15100	1
Antimony	Strong Acid Extractable ug	201	1590	520	0.5
Arsenic	Strong Acid Extractable ug	205	3210	337	0.2
Barium	Strong Acid Extractable ug	431	151	266	0.3
Beryllium	Strong Acid Extractable ug	0.36	0.68	1.12	0.01
Cadmium	Strong Acid Extractable ug	23.2	336	37.4	0.05
Calcium	Strong Acid Extractable ug	11700	20900	16000	2
Chromium	Strong Acid Extractable ug	784	70.6	377	0.04
Cobalt	Strong Acid Extractable ug	134	95.9	103	0.05
Copper	Strong Acid Extractable ug	1780	2100	302	0.05
Iron	Strong Acid Extractable ug	258000	276000	259000	1
Lead	Strong Acid Extractable ug	2920	77000	5520	0.3
Magnesium	Strong Acid Extractable ug	2620	24300	2800	1
Manganese	Strong Acid Extractable ug	3170	39600	5680	0.05
Molybdenum	Strong Acid Extractable ug	53.0	8.72	39.5	0.05
Nickel	Strong Acid Extractable ug	125	157	121	0.1
Phosphorus	Strong Acid Extractable ug	5840	1660	5430	0.5
Potassium	Strong Acid Extractable ug	592	534	802	5
Selenium	Strong Acid Extractable ug	1.8	73.7	9.8	0.3
Silicon	Strong Acid Extractable ug	2640	3490	4960	1
Silver	Strong Acid Extractable ug	127	97.4	115	0.2
Sodium	Strong Acid Extractable ug	5700	6680	7540	1
Sulfur	Strong Acid Extractable ug	2730	60200	12400	1
Tellurium	Strong Acid Extractable ug	240	<0.4	<0.4	0.4
Thallium	Strong Acid Extractable ug	63.9	47.7	98.8	0.3
Tin	Strong Acid Extractable ug	222	121	116	0.2
Titanium	Strong Acid Extractable ug	82.9	24.7	178	0.05
Vanadium	Strong Acid Extractable ug	229	174	83.4	0.1
Zinc	Strong Acid Extractable ug	4370	15200	2770	0.1
Zirconium	Strong Acid Extractable ug	143	134	135	0.05

Approved by:



 Andrew Garrard, BSc
 Operations Manager

Quality Control

Bill To: Access Mining Consultants Ltd. Project: **667926**
 Report To: Access Mining Consultants Ltd. ID: ALEX-08-ESP-01-V
 #3 Calcite Business Centre Name: Elsa Special Project HW
 151 Industrial Road Location: Elsa
 Whitehorse, YT, Canada LSD:
 Y1A 2V3 P.O.: 4817
 Attn: Kurt Neunherz Acct code: (Additional)
 Sampled By: K.Neunherz
 Company: ACG

Air Quality Metals

Blanks	Units	Measured	Lower Limit	Upper Limit	Passed QC
Aluminum	ug	<1	-0	0	yes
Antimony	ug	<0.5	-0.0	0.0	yes
Arsenic	ug	0.2	-0.0	0.0	yes
Barium	ug	<0.0	-0.0	0.0	yes
Beryllium	ug	<0.02	-0.00	0.00	yes
Bismuth	ug	<0.5	-0.0	0.0	yes
Cadmium	ug	0.1	-0.00	0.00	yes
Calcium	ug	3	-0	0	yes
Chromium	ug	0.06	-0.01	0.01	yes
Cobalt	ug	0.05	-0.00	0.00	yes
Copper	ug	0.2	-0.01	0.01	yes
Iron	ug	14	-0	0	yes
Lead	ug	2.7	-0.0	0.0	yes
Lithium	ug	<0.1	-0.0	0.0	yes
Magnesium	ug	<1	-0	0	yes
Manganese	ug	0.65	-0.01	0.01	yes
Molybdenum	ug	0.06	-0.00	0.00	yes
Nickel	ug	<0.1	-0.0	0.0	yes
Phosphorus	ug	0.8	-0.0	0.0	yes
Potassium	ug	<5	-0	0	yes
Selenium	ug	<0.2	-0.0	0.0	yes
Silicon	ug	3	-0	0	yes
Silver	ug	<0.2	-0.0	0.0	yes
Sodium	ug	<2	-1	1	yes
Strontium	ug	<0.02	-0.00	0.00	yes
Sulfur	ug	38	-0	0	yes
Tin	ug	0.6	-0.1	0.1	yes
Titanium	ug	<0.05	-0.00	0.00	yes
Uranium	ug	<2	-0	0	yes
Vanadium	ug	<0.2	-0.0	0.0	yes
Zinc	ug	1.3	-0.0	0.0	yes
Zirconium	ug	0.08	-0.00	0.00	yes

Date Acquired: February 11, 2009

Calibration Check	Units	% Recovery	Lower Limit	Upper Limit	Passed QC
Aluminum	ug/L	121.10	85	115	yes
Antimony	mg/L	99.60	85	115	yes
Arsenic	mg/L	96.90	80	120	yes
Barium	mg/L	94.20	85	115	yes
Beryllium	mg/L	82.50	85	115	yes
Cadmium	mg/L	96.20	85	115	yes
Calcium	mg/L	97.70	40	160	yes
Chromium	mg/L	93.60	85	115	yes

Quality Control

Bill To: Access Mining Consultants Ltd. Project: **667926**
 Report To: Access Mining Consultants Ltd. ID: ALEX-08-ESP-01-V
 #3 Calcite Business Centre Name: Elsa Special Project HW
 151 Industrial Road Location: Elsa
 Whitehorse, YT, Canada LSD:
 Y1A 2V3 P.O.: 4817
 Attn: Kurt Neunherz Acct code: (Additional)
 Sampled By: K.Neunherz
 Company: ACG

Air Quality Metals - Continued

Calibration Check	Units	% Recovery	Lower Limit	Upper Limit	Passed QC
Cobalt	mg/L	99.20	85	115	yes
Copper	mg/L	101.90	85	115	yes
Iron	mg/L	179.60	85	115	yes
Lead	mg/L	117.75	85	115	yes
Lithium	mg/L	89.70	85	115	yes
Magnesium	mg/L	109.50	80	120	yes
Manganese	mg/L	101.80	85	115	yes
Molybdenum	mg/L	90.70	85	115	yes
Nickel	mg/L	99.20	85	115	yes
Phosphorus	mg/L	93.00	85	115	yes
Potassium	mg/L	81.62	85	115	yes
Selenium	mg/L	99.10	85	115	yes
Silicon	mg/L	107.08	85	115	yes
Silver	mg/L	104.40	85	115	yes
Sodium	mg/L	50.00	40	160	yes
Strontium	mg/L	91.70	85	115	yes
Thallium	mg/L	107.44	85	115	yes
Tin	mg/L	98.02	85	115	yes
Titanium	mg/L	89.90	85	115	yes
Uranium	mg/L	91490.00	-200	400	yes
Vanadium	mg/L	92.10	85	115	yes
Zinc	mg/L	96.60	85	115	yes
Zirconium	mg/L	100.00	-200	400	yes
Date Acquired:	February 11, 2009				
Aluminum	ug/L	114.10	85	115	yes
Antimony	mg/L	97.65	85	115	yes
Arsenic	mg/L	96.75	80	120	yes
Barium	mg/L	97.60	85	115	yes
Beryllium	mg/L	87.80	85	115	yes
Cadmium	mg/L	98.70	85	115	yes
Calcium	mg/L	131.30	40	160	yes
Chromium	mg/L	95.70	85	115	yes
Cobalt	mg/L	103.40	85	115	yes
Copper	mg/L	105.50	85	115	yes
Iron	mg/L	118.30	85	115	yes
Lead	mg/L	105.45	85	115	yes
Lithium	mg/L	100.90	85	115	yes
Magnesium	mg/L	96.90	80	120	yes
Manganese	mg/L	101.20	85	115	yes
Molybdenum	mg/L	91.80	85	115	yes
Nickel	mg/L	101.60	85	115	yes
Phosphorus	mg/L	94.36	85	115	yes

Quality Control

Bill To: Access Mining Consultants Ltd. Project: **667926**
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 #3 Calcite Business Centre Name: Elsa Special Project HW
 151 Industrial Road Location: Elsa
 Whitehorse, YT, Canada LSD:
 Y1A 2V3 P.O.: 4817
 Attn: Kurt Neunherz Acct code: (Additional)
 Sampled By: K.Neunherz
 Company: ACG

Air Quality Metals - Continued

Calibration Check	Units	% Recovery	Lower Limit	Upper Limit	Passed QC
Potassium	mg/L	74.88	85	115	yes
Selenium	mg/L	91.30	85	115	yes
Silicon	mg/L	96.82	85	115	yes
Silver	mg/L	94.00	85	115	yes
Sodium	mg/L	50.00	40	160	yes
Strontium	mg/L	95.50	85	115	yes
Thallium	mg/L	108.78	85	115	yes
Tin	mg/L	99.38	85	115	yes
Titanium	mg/L	95.60	85	115	yes
Uranium	mg/L	99980.00	-200	400	yes
Vanadium	mg/L	89.50	85	115	yes
Zinc	mg/L	97.90	85	115	yes
Zirconium	mg/L	100.00	-200	400	yes

Date Acquired: February 11, 2009

Leachate Inorganic - TCLP

Blanks	Units	Measured	Lower Limit	Upper Limit	Passed QC
Lead	mg/L	<0.001	-0.100	0.152	yes

Date Acquired: March 02, 2009

Replicates	Units	Replicate 1	Replicate 2	% RSD Criteria	Absolute Criteria	Passed QC
Lead	mg/L	0.028	0.025	20	0.004	yes

Date Acquired: March 02, 2009

Control Sample	Units	Measured	Lower Limit	Upper Limit	Passed QC
Lead	mg/L	0.021	0.018	0.022	yes

Date Acquired: March 02, 2009

Control Sample	Units	Measured	Lower Limit	Upper Limit	Passed QC
Lead	mg/L	0.001	0.001	0.001	yes

Date Acquired: March 02, 2009

Metals Strong Acid Digestion

Control Sample	Units	Measured	Lower Limit	Upper Limit	Passed QC
Lead	ug/g	528	369.0	917.0	yes

Date Acquired: February 11, 2009

Methodology and Notes

Bill To: Access Mining Consultants Ltd. Project: **667926**
Report To: Access Mining Consultants Ltd. ID: ALEX-08-ESP-01-V
#3 Calcite Business Centre Name: Elsa Special Project HW
151 Industrial Road Location: Elsa
Whitehorse, YT, Canada LSD:
Y1A 2V3 P.O.: 4817
Attn: Kurt Neunherz Acct code: (Additional)
Sampled By: K.Neunherz
Company: ACG

Method of Analysis

Method Name	Reference	Method	Date Analysis Started	Location
Leachate Inorganic (TCLP) ICP-MS	US EPA	* Toxicity Characteristic Leaching Procedure, SW-846, EPA 1311	02-Mar-09	BTG Edmonton
Metals (Strong Acid Leachable) in air	US EPA	* Metals & Trace Elements by ICP-AES, 6010B	11-Feb-09	BTG Surrey
Metals (Strong Acid Leachable) in Paint	US EPA	* Metals & Trace Elements by ICP-AES, 6010B	11-Feb-09	BTG Surrey

* Bodycote method(s) based on reference method

References

US EPA US Environmental Protection Agency Test Methods

Comments:

- Asbestos analysis was performed by a subcontract laboratory. See attached 2 page report from BTG-Pointe-Claire.
- Report was issued to include addition of TCPB analysis on samples 1 and 2, requested by Access on February 26/09. Report 1195562 is an addendum to report 1192812.

Please direct any inquiries regarding this report to our Client Services group.

Results relate only to samples as submitted.

The test report shall not be reproduced except in full, without the written approval of the laboratory.

Client Services Department
Bodycote Testing Group - Surrey
#104, 19575-55 A Ave.
Surrey (British Columbia)
V3S 8P8

CERTIFICATE OF ANALYSIS

CERTIFICATE 09-0322 VERSION 1.0

Client :	B.T.G. – Surrey – Client Serv. Dept.	P.O. Number :	Work Order 97600
Our Project:	09-326505	Your Project :	Lot 667926
Date Received :	February 11 th 2009	Date Analysed:	February 17 th 2009

MINERALOGICAL CHARACTERISATION BY POLARISED LIGHT MICROSCOPY AND DISPERSION STAINING COLOURS NIOSH METHOD 9002

Twenty-two (22) samples were submitted for analysis by polarised light microscopy and dispersion staining colours. The samples were prepared and observed using the following procedure :

A fragment of each sample was isolated. If needed in order to extract the fibres, the samples are submitted to light mechanical crushing. The particles and fibres produced are transferred to a glass slide, covered with a cover glass and immersed in the appropriate refractive index liquids in order to observe the dispersion staining colours. The orthoscopic and conoscopic optical properties of the samples are also used if they permit further characterisation of the samples. The results are summarised as follows :

667926-4 – Building 20 – Mill / Crusher Lower	
White and brown material	
Asbestos fibres	None detected

667926-5 – Building 35 – Generator Building	
White and brown material	
Asbestos fibres	None detected

667926-7 – To Pump House Piping	
Beige and brown material	
Asbestos fibres	None detected

667926-8 – Building 35 – Pipe Insulation *	
Beige and grey material and yellow insulating wool	
<i>Material phase</i>	
AMOSITE asbestos fibres	60 – 65 %
Asbestos fibres	None detected

* This sample contains two (2) phases analysed separately.

667926-9 – Building 32 – Elsa Market	
Red and black floor covering, presence of wood and adhesive	
Asbestos fibres	None detected

667926-10 – Piping From Building # 25 to # 20	
Orange and beige insulating wool	
Asbestos fibres	None detected

Client :	B.T.G. – Surrey – Client Serv. Dept.	P.O. Number :	Work Order 97600
Our Project:	09-326505	Your Project :	Lot 667926
Date Received :	February 11 th 2009	Date Analysed:	February 17 th 2009

667926-11 – Building 20 – Mill Piping	
Yellow and grey insulating wool	
Asbestos fibres	None detected

667926-13 – Building 21 – Boiler Plant Piping	
Beige insulating material, presence of cotton canvas, cardboard and adhesive	
AMOSITE asbestos fibres	60 – 65 %

667926-14 – Townsite Flooring	
Red and green floor covering, presence of tar cardboard and adhesive	
Asbestos fibres	None detected

667926-15 – Building 33 – Fire Hall	
Beige cardboard (asbestos-paper), presence of tar	
CHrysotile asbestos fibres	70 – 75 %

667926-16 – Building 12 – Bunkhouse	
Beige undulated cardboard (asbestos-paper), presence of tar	
CHrysotile asbestos fibres	75 – 80 %

667926-17 – Building 20 – Mill Lower	
Beige undulated cardboard (asbestos-paper), presence of tar	
CHrysotile asbestos fibres	75 – 80 %

667926-21 – Building 25 – Light Vehicle Shop	
Beige undulated cardboard (asbestos-paper), presence of tar	
CHrysotile asbestos fibres	70 – 75 %

667926-22 – Building 22 – No. 1 Garage	
Beige and brown undulated cardboard (asbestos-paper), presence of adhesive and tar	
CHrysotile asbestos fibres	70 – 75 %

667926-23 – Building 20 – Mill Upper	
Beige undulated cardboard (asbestos-paper), presence of tar	
CHrysotile asbestos fibres	75 – 80 %

667926-24 – Building 6 – Wood Storage Shed	
Beige undulated cardboard (asbestos-paper), presence of tar	
CHrysotile asbestos fibres	75 – 80 %

667926-25 – Dixie Sheeting	
Grey rigid panel (asbestos-cement)	
CHrysotile asbestos fibres	50 – 55 %

667926-26 – Building 39 – Mans Staff House	
Grey beige and green rigid panel (asbestos-cement)	
CHrysotile asbestos fibres	55 – 60 %

Client :	B.T.G. – Surrey – Client Serv. Dept.	P.O. Number :	Work Order 97600
Our Project:	09-326505	Your Project :	Lot 667926
Date Received :	February 11 th 2009	Date Analysed:	February 17 th 2009

667926-27 – G300 – Hanger Board	
Grey rigid panel (asbestos-cement)	
CHrysotile asbestos fibres	50 – 55 %

667926-29 – Building 38 – Administration	
Grey and beige rigid panel (asbestos-cement)	
CHrysotile asbestos fibres	50 – 55 %

667926-30 – Building 7 – New Bunkhouse	
Grey gypsum, presence of cardboard	
Asbestos fibres	None detected

667926-31 – Building 36 – Vehicle Warehouse	
Yellow and grey insulating wool	
Asbestos fibres	None detected

Quality control results

Quality control consists in a second analysis of 10% of the samples analysed. A difference in terms of the percentages is acceptable because of the visual and semi-quantitative nature of the analysis.

667926-8 – Building 35 – Pipe Insulation * – QC **	
Beige and grey material and yellow insulating wool	
Material phase	
AMOSITE asbestos fibres	60 – 65 %
Insulating wool phase	
Asbestos fibres	None detected

* This sample contains two (2) phases analysed separately.

** Acceptable results : yes no

667926-22 – Building 22 – No. 1 Garage – QC *	
Beige and brown undulated cardboard (asbestos-paper), presence of adhesive and tar	
CHrysotile asbestos fibres	70 – 75 %

* Acceptable results : yes no

Analysed by : Sabrina Ait Slimane
Sabrina Ait Slimane, Technician

Verified by : Martin Gravelle, B.Sc. Chemist

Notes : PLM has been known to miss asbestos in a small percentage of samples which contain asbestos. Therefore negative PLM results cannot be guaranteed. This analytical method is semi-quantitative. The applicability of this method varies between < 1 % and 100 % (v/v). Bodycote Testing Group suggests that samples reported as « None detected », « trace » or « < 1% » be analysed by TEM. The present certificate relates only to the samples analysed. The present certificate may not be reproduced, except in full, without written approval by Bodycote Testing Group. The laboratory is not responsible for the accuracy of results when requested to physically separate and analyse layered samples. The laboratory is not responsible for the representativeness of the samples submitted for analysis. Samples will be kept for a period of 60 days or according to the written request of the client.

BODYCOTE TESTING GROUP PARTICIPATES IN THE AIHA PAT PROGRAM FOR BULK ASBESTOS.



**NORWEST
LABS**

Environmental Sample Information Sheet

Control Number

NOTE Proper completion of this form is required in order to proceed with analysis
See reverse for contacting your nearest Norwest location and proper sampling protocol

Billing Address		Report To: <input checked="" type="checkbox"/>	Copy of Report To:		Copy of invoice: <input checked="" type="checkbox"/>
Company: Access Consulting Group Address: #3 Calcite Business Centre-151 Industrial Road Whitehorse, YT Y1A 2V3		QA/QC Report <input checked="" type="checkbox"/>	Company: Access Consulting Group Address: #3 Calcite Business Centre-151 Industrial Road Whitehorse, YT Y1A 2V3		Mail invoice to this address for approval <input checked="" type="checkbox"/>
Attention: Kurt Neunherz Phone: 867-668-6364 Fax: 867-667-6680 Cell: Email: kurt@accessconsulting.ca		Report Result: Fax <input type="checkbox"/> Mail <input type="checkbox"/> Courier <input type="checkbox"/> Email <input checked="" type="checkbox"/>	Attention: Kurt Neunherz Phone: 867-668-6364 Fax: Cell: Email: kurt@accessconsulting.ca		Report Result: Fax <input type="checkbox"/> Mail <input type="checkbox"/> Courier <input type="checkbox"/> Email <input checked="" type="checkbox"/>

Information to be included on Report and Invoice		RUSH Please contact the laboratory to confirm rush dates and times before submitting samples.	Sample Custody (Please Print)	
Project ID: ALEX-08-ESP-01-V Project Name: Elsa Special Project HW Project Location: Elsa Legal Location: PO#: 4817 Proj. Acct. Code: Agreement ID:		Upon filling out this section, client accepts that surcharges will be attached to this analysis	Sampled by: K Neunherz Date: Jan 31, 09 Company ACG Signature	
		Required on: all analyses or as indicated <input type="checkbox"/> or <input type="checkbox"/>	Relinquished by: K Neunherz Company ACG Date: Jan 31, 09 Waybill number: RECEIVED	
		Date required: _____ Signature: _____ Norwest Authorization: _____	Received by: _____ Company FEB 10 2009 Processed by: _____ Norwest Labs Date: 1/15/09	

Special Instructions/Comments		Number of Containers	Asbestos	Lead Paint	ICP Metals	HOLD										
May Contain Asbestos																

	Sample Identification	Location	Depth	Date/Time Sampled	Matrix	Sampling Method	Number of Containers	Enter tests above (check off relevant samples below)									
								Asbestos	Lead Paint	ICP Metals	HOLD						
1	Building 13 interior paint	#1 Bunkhouse	-	Jan 31, 09	Paint	Grab	1	✓									
2	Building 19 interior paint	Fire Assay Office	-	Jan 31, 09	Paint	Grab	1	✓									
3	Building 21 Boiler Plant	Metal Frame	-	Jan 31, 09	Swap	Grab	1		✓								
4	Building 20 Mill/crusher lower	Metal Frame	-	Jan 31, 09	Swap	Grab	1	✓	✓								
5	Building 35 Generator Building	Metal Frame	-	Jan 31, 09	Swap	Grab	1	✓	✓								
6	Building 20 Mill/crusher upper	Metal	-	Jan 31, 09	Swap	Grab	1				✓						
7	To Pump House Piping	Pipe	-	Jan 31, 09	insulation	Grab	1	✓									
8	Building 35 Pipe Insulation	Pipe	-	Jan 31, 09	insulation	Grab	1	✓									
9	Building 32 Elsa Market	Flooring	-	Jan 31, 09	tile	Grab	1	✓									
10	Piping from buildings #25 to #20	Overhead Piping	-	Jan 31, 09	insulation	Grab	1	✓									
11	Building #20 Mill Piping	Pipe	-	Jan 31, 09	insulation	Grab	1	✓									
12	G300 Hanger	interior	-	Jan 31, 09	insulation	Grab	1				✓						
13	Building #21 Boiler Plant Piping	Pipe	-	Jan 31, 09	insulation	Grab	1	✓									
14	Townssite Flooring	Flooring	-	Jan 31, 09	tile	Grab	1	✓									

NOTE: All hazardous samples must be labeled according to WHMIS guidelines.

Accredited by the Standards Council of Canada for specific tests

Page 1 of 2
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**NORWEST
LABS**

Environmental Sample Information Sheet

NOTE Proper completion of this form is required in order to proceed with analysis
See reverse for contacting your nearest Norwest location and proper sampling protocol

Billing Address		Report To: <input checked="" type="checkbox"/>	Copy of Report To:	Copy of invoice: <input checked="" type="checkbox"/>
Company:	Access Consulting Group			Mail invoice to this
Address:	#3 Calcite Business Centre-151 Industrial Road	QA/QC Report <input checked="" type="checkbox"/>	#3 Calcite Business Centre-151 Industrial Road	address for approval <input checked="" type="checkbox"/>
	Whitehorse, YT Y1A 2V3			Whitehorse, YT Y1A 2V3
Attention:	Kurt Neunherz			Report Result:
Phone:	867-668-6364	Fax <input type="checkbox"/>	Phone:	Kurt Neunherz
Fax:	867-667-6680	Mail <input type="checkbox"/>	Fax:	867-668-6364
Cell:		Courier <input type="checkbox"/>	Cell:	
Email:	kurt@accessconsulting.ca	Email <input checked="" type="checkbox"/>	Email:	Courier <input type="checkbox"/>
			Email:	Email <input checked="" type="checkbox"/>

Information to be included on Report and Invoice		RUSH Please contact the laboratory to confirm rush dates and times before submitting samples.	Sample Custody (Please Print)	
Project ID: ALEX-08-ESP-01-V		Upon filling out this section, client accepts that surcharges will be attached to this analysis		
Project Name: Elsa Special Project HW		Required on: all analyses or as indicated		
Project Location: Elsa		<input type="checkbox"/> or <input type="checkbox"/>		
Legal Location:		Date required: _____		
PO#:		Signature: _____		
Proj. Acct. Code:		Norwest Authorization: _____		
Agreement ID:		Norwest Labs Date		
		Sampled by: K Neunherz Date Jan 31, 09		
		Company ACG Signature		
		Relinquished by: K Neunherz		
		Company ACG Date Jan 31, 09		
		Waybill number: _____		
		Received by: _____		
		Company _____ Date _____		
		Processed by: _____		

Special Instructions/Comments	
May contain Asbestos	

	Sample Identification	Location	Depth	Date/Time Sampled	Matrix	Sampling Method	↓	Enter tests above (check off relevant samples below)	
								✓	✓
15	1 Building 33 Fire Hall	exterior	-	Jan 31, 09	tar paper	Grab	1	✓	
16	2 Building 12 Bunkhouse	exterior	-	Jan 31, 09	tar paper	Grab	1	✓	
17	3 Building 20 mill lower	exterior	-	Jan 31, 09	tar paper	Grab	1	✓	
18	4 Building 15 snack bar	exterior	-	Jan 31, 09	tar paper	Grab	1		✓
19	5 Building 23 No2 garage	exterior	-	Jan 31, 09	tar paper	Grab	1		✓
20	6 Building 30 yellow exploration	exterior	-	Jan 31, 09	tar paper	Grab	1		✓
21	7 Building 25 light vehicle shop	exterior	-	Jan 31, 09	tar paper	Grab	1	✓	
22	8 Building 22 No1 Garage	exterior	-	Jan 31, 09	tar paper	Grab	1	✓	
23	9 Building 20 mill upper	exterior	-	Jan 31, 09	tar paper	Grab	1	✓	
24	10 Building 6 wood storage shed	exterior	-	Jan 31, 09	tar paper	Grab	1	✓	
25	11 Dixie Sheeting	exterior	-	Jan 31, 09	ext tiles	Grab	1	✓	
26	12 Building 39 mans staff house	exterior	-	Jan 31, 09	ext tiles	Grab	1	✓	
27	13 G300 Hanger Board	interior	-	Jan 31, 09	int tiles	Grab	1	✓	
28	14 Building 41 Apartment	exterior	-	Jan 31, 09	ext tiles	Grab	1		✓

NOTE: All hazardous samples must be labeled according to WHMIS guidelines.

Accredited by the Standards Council of Canada for specific tests

Page 2 of 3

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**NORWEST
LABS**

Environmental Sample Information Sheet

NOTE Proper completion of this form is required in order to proceed with analysis
See reverse for contacting your nearest Norwest location and proper sampling protocol

Billing Address	Report To: <input checked="" type="checkbox"/>	Copy of Report To:	Copy of invoice: <input checked="" type="checkbox"/>
Company: Access Consulting Group	QA/QC Report <input checked="" type="checkbox"/>	Company: Access Consulting Group	Mail invoice to this address for approval <input checked="" type="checkbox"/>
Address: #3 Calcite Business Centre-151 Industrial Road		Address: #3 Calcite Business Centre-151 Industrial Road	
Whitehorse, YT Y1A 2V3		Whitehorse, YT Y1A 2V3	
Attention: Kurt Neunherz	Report Result: Fax <input type="checkbox"/> Mail <input type="checkbox"/> Courier <input type="checkbox"/> Email <input checked="" type="checkbox"/>	Attention: Kurt Neunherz	Report Result: Fax <input type="checkbox"/> Mail <input type="checkbox"/> Courier <input type="checkbox"/> Email <input checked="" type="checkbox"/>
Phone: 867-668-6364	Phone: 867-668-6364	Fax: 867-667-6680	
Fax: 867-667-6680		Cell:	
Cell:		Email: kurt@accessconsulting.ca	
Email: kurt@accessconsulting.ca			

Information to be included on Report and Invoice	RUSH Please contact the laboratory to confirm rush dates and times before submitting samples.	Sample Custody (Please Print)
Project ID: ALEX-08-ESP-01-V	Upon filling out this section, client accepts that surcharges will be attached to this analysis	Sampled by: K Neunherz Date Jan 31, 09
Project Name: Elsa Special Project HW	Required on: all analyses or as indicated	Company ACG Signature
Project Location: Elsa	<input type="checkbox"/> or <input type="checkbox"/>	Relinquished by: K Neunherz
Legal Location:	Date required: _____	Company ACG Date Jan 31, 09
PO#:	Signature: _____	Waybill number: _____
Proj. Acct. Code:	Norwest Authorization: _____	Received by: _____
Agreement ID:		Processed by: _____
		Norwest Labs Date _____

Special Instructions/Comments	
May contain Asbestos	

#	Sample Identification	Location	Depth	Date/Time Sampled	Matrix	Sampling Method	Number of Containers ↓	Enter tests above (check off relevant samples below)				
								Asbestos	Lead Paint	ICP Metals	HOLD	
1	Building 38 Administration	exterior	-	Jan 31, 09	ext tiles	Grab	1 ✓					
2	Building 7 new bunkhouse	interior	-	Jan 31, 09	dry wall	Grab	1 ✓					
3	Building 36 vehicle warehouse	exterior	-	Jan 31, 09	insulation	Grab	1 ✓					
4			-									
5			-									
6			-									
7			-									
8			-									
9			-									
10			-									
11			-									
12			-									
13			-									
14			-									

NOTE: All hazardous samples must be labeled according to WHMIS guidelines.

Accredited by the Standards Council of Canada for specific tests

Page 3 of 3

#

Report Transmission Cover Page

Bill To: Access Mining Consultants Ltd. Project: **667926**
Report To: Access Mining Consultants Ltd. ID: ALEX-08-ESP-01-V
 #3 Calcite Business Centre Name: Elsa Special Project HW
 151 Industrial Road Location: Elsa
 Whitehorse, YT, Canada LSD:
 Y1A 2V3 P.O.: 4817
Attn: Kurt Neunherz Acct code:
Sampled By: K.Neunherz
Company: ACG

Approval Status: Approved
Invoice Frequency: by Lot
COD Status:
Control Number:
Date Received: Feb 10, 2009
Date Reported: Feb 19, 2009
Report Number: 1192389

Contact	Company	Address
Kurt Neunherz	Access Mining Consultants Ltd.	#3 Calcite Business Centre, 151 Industrial Road Whitehorse, YT Y1A 2V3 Phone: (867) 668-6463 Fax: (867) 667-6680 Email: kurt@accessconsulting.ca

Copies Delivery Format
1 Email - Single Report PDF
1 Email - Single Report Standard Crosstab

_____ PAGES IN THIS TRANSMISSION

Notes To Clients:

- Asbestos analysis was performed by a subcontract laboratory. See attached 2 page report from BTG-Pointe-Claire.

Reports associated with this LotId/Format/Report DateId/Format/Report DateId/Format/Report Date

1192812 Env2QC 3 Smp & DL 19-Feb-09

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Client Services Department
Bodycote Testing Group - Surrey
#104, 19575-55 A Ave.
Surrey (British Columbia)
V3S 8P8

CERTIFICATE OF ANALYSIS

CERTIFICATE 09-0322 VERSION 1.0

Client :	B.T.G. – Surrey – Client Serv. Dept.	P.O. Number :	Work Order 97600
Our Project:	09-326505	Your Project :	Lot 667926
Date Received :	February 11 th 2009	Date Analysed:	February 17 th 2009

MINERALOGICAL CHARACTERISATION BY POLARISED LIGHT MICROSCOPY AND DISPERSION STAINING COLOURS NIOSH METHOD 9002

Twenty-two (22) samples were submitted for analysis by polarised light microscopy and dispersion staining colours. The samples were prepared and observed using the following procedure :

A fragment of each sample was isolated. If needed in order to extract the fibres, the samples are submitted to light mechanical crushing. The particles and fibres produced are transferred to a glass slide, covered with a cover glass and immersed in the appropriate refractive index liquids in order to observe the dispersion staining colours. The orthoscopic and conoscopic optical properties of the samples are also used if they permit further characterisation of the samples. The results are summarised as follows :

667926-4 – Building 20 – Mill / Crusher Lower	
White and brown material	
Asbestos fibres	None detected

667926-5 – Building 35 – Generator Building	
White and brown material	
Asbestos fibres	None detected

667926-7 – To Pump House Piping	
Beige and brown material	
Asbestos fibres	None detected

667926-8 – Building 35 – Pipe Insulation *	
Beige and grey material and yellow insulating wool	
Material phase	
AMOSITE asbestos fibres	60 – 65 %
Asbestos fibres	None detected

* This sample contains two (2) phases analysed separately.

667926-9 – Building 32 – Elsa Market	
Red and black floor covering, presence of wood and adhesive	
Asbestos fibres	None detected

667926-10 – Piping From Building # 25 to # 20	
Orange and beige insulating wool	
Asbestos fibres	None detected

Client :	B.T.G. – Surrey – Client Serv. Dept.	P.O. Number :	Work Order 97600
Our Project:	09-326505	Your Project :	Lot 667926
Date Received :	February 11 th 2009	Date Analysed:	February 17 th 2009

667926-11 – Building 20 – Mill Piping	
Yellow and grey insulating wool	
Asbestos fibres	None detected

667926-13 – Building 21 – Boiler Plant Piping	
Beige insulating material, presence of cotton canvas, cardboard and adhesive	
AMOSITE asbestos fibres	60 – 65 %

667926-14 – Townsite Flooring	
Red and green floor covering, presence of tar cardboard and adhesive	
Asbestos fibres	None detected

667926-15 – Building 33 – Fire Hall	
Beige cardboard (asbestos-paper), presence of tar	
CHrysotile asbestos fibres	70 – 75 %

667926-16 – Building 12 – Bunkhouse	
Beige undulated cardboard (asbestos-paper), presence of tar	
CHrysotile asbestos fibres	75 – 80 %

667926-17 – Building 20 – Mill Lower	
Beige undulated cardboard (asbestos-paper), presence of tar	
CHrysotile asbestos fibres	75 – 80 %

667926-21 – Building 25 – Light Vehicle Shop	
Beige undulated cardboard (asbestos-paper), presence of tar	
CHrysotile asbestos fibres	70 – 75 %

667926-22 – Building 22 – No. 1 Garage	
Beige and brown undulated cardboard (asbestos-paper), presence of adhesive and tar	
CHrysotile asbestos fibres	70 – 75 %

667926-23 – Building 20 – Mill Upper	
Beige undulated cardboard (asbestos-paper), presence of tar	
CHrysotile asbestos fibres	75 – 80 %

667926-24 – Building 6 – Wood Storage Shed	
Beige undulated cardboard (asbestos-paper), presence of tar	
CHrysotile asbestos fibres	75 – 80 %

667926-25 – Dixie Sheeting	
Grey rigid panel (asbestos-cement)	
CHrysotile asbestos fibres	50 – 55 %

667926-26 – Building 39 – Mans Staff House	
Grey beige and green rigid panel (asbestos-cement)	
CHrysotile asbestos fibres	55 – 60 %

Client :	B.T.G. – Surrey – Client Serv. Dept.	P.O. Number :	Work Order 97600
Our Project:	09-326505	Your Project :	Lot 667926
Date Received :	February 11 th 2009	Date Analysed:	February 17 th 2009

667926-27 – G300 – Hanger Board	
Grey rigid panel (asbestos-cement)	
CHrysotile asbestos fibres	50 – 55 %

667926-29 – Building 38 – Administration	
Grey and beige rigid panel (asbestos-cement)	
CHrysotile asbestos fibres	50 – 55 %

667926-30 – Building 7 – New Bunkhouse	
Grey gypsum, presence of cardboard	
Asbestos fibres	None detected

667926-31 – Building 36 – Vehicle Warehouse	
Yellow and grey insulating wool	
Asbestos fibres	None detected

Quality control results

Quality control consists in a second analysis of 10% of the samples analysed. A difference in terms of the percentages is acceptable because of the visual and semi-quantitative nature of the analysis.

667926-8 – Building 35 – Pipe Insulation * – QC **	
Beige and grey material and yellow insulating wool	
Material phase	
AMOSITE asbestos fibres	60 – 65 %
Insulating wool phase	
Asbestos fibres	None detected

* This sample contains two (2) phases analysed separately.

** Acceptable results : yes no

667926-22 – Building 22 – No. 1 Garage – QC *	
Beige and brown undulated cardboard (asbestos-paper), presence of adhesive and tar	
CHrysotile asbestos fibres	70 – 75 %

* Acceptable results : yes no

Analysed by : Sabrina Ait Slimane
Sabrina Ait Slimane, Technician

Verified by : Martin Gravelle, B.Sc. Chemist

Notes : PLM has been known to miss asbestos in a small percentage of samples which contain asbestos. Therefore negative PLM results cannot be guaranteed. This analytical method is semi-quantitative. The applicability of this method varies between < 1 % and 100 % (v/v). Bodycote Testing Group suggests that samples reported as « None detected », « trace » or « < 1% » be analysed by TEM. The present certificate relates only to the samples analysed. The present certificate may not be reproduced, except in full, without written approval by Bodycote Testing Group. The laboratory is not responsible for the accuracy of results when requested to physically separate and analyse layered samples. The laboratory is not responsible for the representativeness of the samples submitted for analysis. Samples will be kept for a period of 60 days or according to the written request of the client.

BODYCOTE TESTING GROUP PARTICIPATES IN THE AIHA PAT PROGRAM FOR BULK ASBESTOS.

Report Transmission Cover Page

Bill To:	Access Mining Consultants Ltd.	Project:	Lot ID: 639767
Report To:	Access Mining Consultants Ltd.	ID:	Approval Status: Approved
	#3 Calcite Business Centre	Name:	Invoice Frequency: by Lot
	151 Industrial Road	Location:	COD Status:
	Whitehorse, YT, Canada	LSD:	Control Number: E 01692
	Y1A 2V3	P.O.:	Date Received: Sep 2, 2008
Attn:	Kurt Neunherz	Acct code:	Date Reported: Sep 8, 2008
Sampled By:			
Company:			

Contact	Company	Address		
Paul Inglis	Access Mining Consultants Ltd.	# 3 Calcite Business Centre, 151 Industrial Road Whitehorse, YT Y1A 2V3		
Copies	Delivery	Format	Phone:	(867) 668-6463 Fax: (867) 667-6680
1	Email - Single Report	PDF	Email:	paul@accessconsulting.ca
1	Email - Single Report	Standard Crosstab		
Kurt Neunherz	Access Mining Consultants Ltd.	#3 Calcite Business Centre, 151 Industrial Road Whitehorse, YT Y1A 2V3		
Copies	Delivery	Format	Phone:	(867) 668-6463 Fax: (867) 667-6680
1	Email - Single Report	PDF	Email:	kurt@accessconsulting.ca
1	Email - Single Report	Standard Crosstab		

 PAGES IN THIS TRANSMISSION

Notes To Clients:

- Asbestos analysis was performed by a subcontract laboratory. See attached 2 page report from Bodycote Pointe Claire.

Reports associated with this Lot
Id/Format/Report Date
Id/Format/Report Date
Id/Format/Report Date

The information contained on this and all other pages transmitted, is intended for the addressee only and is considered confidential.

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Sample Custody

Bill To: Access Mining Consultants Ltd. Project:
Report To: Access Mining Consultants Ltd. ID: Keno Closure Studies
#3 Calcite Business Centre Name: Building Assessment
151 Industrial Road Location:
Whitehorse, YT, Canada LSD:
Y1A 2V3 P.O.:
Attn: Kurt Neunherz Acct code:

Sampled By:
Company:

Lot ID: **639767**
Control Number: E 01692
Date Received: Sep 2, 2008
Date Reported: Sep 8, 2008
Report Number: 1146320

Sample Disposal Date: October 08, 2008

All samples will be stored until this date unless other instructions are received. Please indicate other requirements below and return this form to the address or fax number on the bottom of this page.

Extend Sample Storage Until _____ (MM/DD/YY)

The following charges apply to extended sample storage:

Storage for 1 to 5 samples per month	\$ 10.00
Storage for 6 to 20 samples per month	\$ 15.00
Storage for 21 to 50 samples per month	\$ 30.00
Storage for 51 to 200 samples per month	\$ 60.00
Storage for more than 200 samples per month	\$ 110.00

Return Sample, collect, to the address below via:

- Greyhound
- Loomis
- Purolator
- Other (specify) _____

Name _____

Company _____

Address _____

Phone _____

Fax _____

Signature _____

Analytical Report

Bill To: Access Mining Consultants Ltd. Project: **639767**
Report To: Access Mining Consultants Ltd. ID: Control Number: E 01692
#3 Calcite Business Centre Name: Building Assessment Date Received: Sep 2, 2008
151 Industrial Road Location: Date Reported: Sep 8, 2008
Whitehorse, YT, Canada LSD: Report Number: 1146320
Y1A 2V3 P.O.:
Attn: Kurt Neunherz Acct code:
Sampled By:
Company:

Reference Number 639767-1
Sample Date August 29, 2008
Sample Location
Sample Description Keno 700 Bunkhouse
Sample Matrix Solids

Analyte	Units	Result	Nominal Detection Limit
Metals Strong Acid Digestion			
Lead	Strong Acid Extractable	ug/g	2930

Approved by:


Andrew Garrard, BSc
Operations Manager

Methodology and Notes

Bill To: Access Mining Consultants Ltd. Project: **639767**
Report To: Access Mining Consultants Ltd. ID: Keno Closure Studies
#3 Calcite Business Centre Name: Building Assessment
151 Industrial Road Location:
Whitehorse, YT, Canada LSD:
Y1A 2V3 P.O.:
Attn: Kurt Neunherz Acct code:

Sampled By:
Company:

Method of Analysis

Method Name	Reference	Method	Date Analysis Started	Location
Metals (Strong Acid Leachable) in Paint	US EPA	* Metals & Trace Elements by ICP-AES, 6010B	05-Sep-08	BTG Surrey

** Bodycote method(s) based on reference method*

References

US EPA US Environmental Protection Agency Test Methods

Comments:

- Asbestos analysis was performed by a subcontract laboratory. See attached 2 page report from Bodycote Pointe Claire.

Please direct any inquiries regarding this report to our Client Services group.

Results relate only to samples as submitted.

The test report shall not be reproduced except in full, without the written approval of the laboratory.

Client Services Department
Bodycote Testing Group - Surrey
#104, 19575-55 A Ave.
Surrey (British Columbia)
V3S 8P8

CERTIFICATE OF ANALYSIS

CERTIFICATE 08-1348 VERSION 1.0

Client :	B.T.G. – Surrey – Client Serv. Dept.	P.O. Number :	Work Order 97536
Our Project:	08-309067	Your Project :	Lot 639767
Date Received :	September 3 rd 2008	Date Analysed:	September 5 th 2008

**MINERALOGICAL CHARACTERISATION BY POLARISED LIGHT MICROSCOPY
AND DISPERSION STAINING COLOURS
NIOSH METHOD 9002**

Five (5) samples were submitted for analysis by polarised light microscopy and dispersion staining colours. The samples were prepared and observed using the following procedure :

A fragment of each sample was isolated. If needed in order to extract the fibres, the samples are submitted to light mechanical crushing. The particles and fibres produced are transferred to a glass slide, covered with a cover glass and immersed in the appropriate refractive index liquids in order to observe the dispersion staining colours. The orthoscopic and conoscopic optical properties of the samples are also used if they permit further characterisation of the samples. The results are summarised as follows :

639767-1 – Keno 700 Bunkhouse	
Pink, green, orange et brown material (Mixture of paint and joint compound)	
CHRYSOTILE asbestos fibres	1 – 5 %

639767-2 – Keno 700 Post Office	
White cardboard (asbestos paper), presence of tar	
CHRYSOTILE asbestos fibres	80 – 85 %

639767-3 – Keno 700 Pipeline	
Yellow and beige insulating wool, presence of adhesive and aluminum paper	
Asbestos fibres	None detected

639767-4 – Elsa Maintenance Garage (Old Shop) *	
Beige cardboard (asbestos paper) and black tar cardboard	
Phase beige cardboard	
CHRYSOTILE asbestos fibres	80 – 85 %
Phase black tar cardboard	
CHRYSOTILE asbestos fibres	60 – 65 %

* This sample contains two (2) phases analysed separately.

Bodycote Testing Group
121 Hymus Boulevard • Pointe-Claire • Quebec • Canada • H9R 1E6 • Tel: +1 (514) 697-3273 • Fax: +1 (514) 697-2090

Client :	B.T.G. – Surrey – Client Serv. Dept.	P.O. Number :	Work Order 97536
Our Project:	08-309067	Your Project :	Lot 639767
Date Received :	September 3 rd 2008	Date Analysed:	September 5 th 2008

639767-5 – Keno 700 Mess Hall *	
White cardboard (asbestos paper) and brown and black tar cardboard	
Phase white cardboard	
CHrysotile asbestos fibres	80 – 85 %
Phase brown and black tar cardboard	
CHrysotile asbestos fibres	60 – 65 %

* This sample contains two (2) phases analysed separately.

Analysed by : Sabrina Ait Slimane
Sabrina Ait Slimane, Technician

Verified by :



Martin Gravelle,
B.Sc. Chemist

Notes : PLM has been known to miss asbestos in a small percentage of samples which contain asbestos. Therefore negative PLM results cannot be guaranteed. This analytical method is semi-quantitative. The applicability of this method varies between < 1 % and 100 % (v/v). Bodycote Testing Group suggests that samples reported as « None detected », « trace » or « < 1% » be analysed by TEM. The present certificate relates only to the samples analysed. The present certificate may not be reproduced, except in full, without written approval by Bodycote Testing Group. The laboratory is not responsible for the accuracy of results when requested to physically separate and analyse layered samples. The laboratory is not responsible for the representativeness of the samples submitted for analysis. Samples will be kept for a period of 60 days or according to the written request of the client.

BODYCOTE TESTING GROUP PARTICIPATES IN THE AIHA PAT PROGRAM FOR BULK ASBESTOS.

Appendix B

Selected Photographs



Photo #1: Typical asbestos tar paper



Photo #2: No. 5 Bunkhouse



Photo #3: No. 20 flotation mill/crusher house – asbestos tar paper



Photo #4: No. 20 flotation mill/crusher house – asbestos tar paper



Photo #5: No. 38 Administration Building hard tile asbestos



Photo #6: Close up of asbestos tar paper



Photo #7: Building No. 16 and No. 17



Photo #8: Building No. 4 interior of sawmill



Photo #9: Unknown liquid in drum in the carpentry yard



Photo #10: Waste pile at Onek



Photo #11: Sola Select ballast PCB's unknown



Photo #12: Advanced ballast PCB's unknown



Photo #13: PCB ballasts from building No. 32 Elsa market



Photo #14: Ballast from Elsa market building No. 32 may contain PCB's

Appendix C

Access Consulting Group Building Contamination Inventory

(from Appendix G of SRK's "Baseline Environmental Report United Keno Hill Mines Property" 2007 Report)



- Access Mining Consultants Ltd.
 - Access Oil & Gas Services

**# 3 Calcite Business Centre, 151 Industrial Road
Whitehorse, Yukon Y1A 2V3
PHONE (867) 668-6463 FAX (867) 667-6680
www.accessconsulting.ca**

Memorandum

To: File January 11, 2007
CC:
From: Corey Fernets, C.E.T., Access Consulting Group

Re: Building Contamination

The following is a descriptive summary of the extent of the building contamination documentation to date. All known UKHM sites were inspected with specific attention paid to any evidence of building contamination, which includes contaminants such as lead based paints or the presence of asbestos in or on site buildings. The PWGSC Environmental Baseline Assessment was also reviewed in order to compile a comprehensive list of all suspect UKHM properties.

Although a thorough field survey was carried out on the Keno Hill Property, the potential remains for additional areas of contamination to exist on-site. Additional buildings may be hidden in the dense bush areas or in locations that are not clearly visible either from the roadways or aerial views, and were never staked as claims or reported by locals in the vicinity. However, the field investigation and PWGSC documentation is thought to capture the majority of the sites known to be located on or near the Keno Hill Property.

Thank you.

Access Consulting Group

Corey Fernetz, C.E.T.

Building Contamination

Access Consulting observed and documented sites where asbestos or lead leaden materials were found while conducting the inspections of the remaining sites with SRK Consulting. Where possible, samples of potential asbestos containing materials were retained by Access Consulting in the event that lab analysis was necessary to confirm the presence of asbestos fibres. Sites with evidence of lead or asbestos bearing materials were compiled and correlated with sites documented the previous year and with areas reported in the March 2000 Environmental Baseline Assessment performed by Public Works. This information was sorted into the following Building Contamination Inventory list which included Site Name, Contamination Location, Description of Contamination, and whether samples were taken. Note that only UKHM sites with suspect contamination were included in the table.



Possible building contamination at Main Fault & Nabob site.



UKHM Claim Package Building Contamination Inventory - September 2006

Assigned Site No.	Site Name	Location	Hazard Identified By	Description of Contamination Suspect	Samples Taken/Results
1	Silver King	100 Level Shifters Office/Lunch Room	PWGSC Baseline Assessment	Paint	None
2	Husky & Husky SW	Boiler House	PWGSC Baseline Assessment	Possible asbestos exterior and interior siding, vinyl and asbestos floor tile.	None
		ATCO Trailer	PWGSC Baseline Assessment	Exterior is painted yellow and brown.	None
3	Elsa	50 Level Shack	PWGSC Baseline Assessment	Blue paint	None
		400 Level Portal	PWGSC Baseline Assessment	Insulated wood frame with asbestos siding.	None
4	Dixie	Garage/Office	PWGSC Baseline Assessment	Asbestos board in the office area.	None
			PWGSC Baseline Assessment	Floor tile	Yes - 1-10% chrysotile
7	No Cash	100 Level Garage	PWGSC Baseline Assessment	Bay doors are painted	None
		100 Level Lunchroom	PWGSC Baseline Assessment	Floor and partial wall sheathed with 2cm thick asbestos board.	None
			PWGSC Baseline Assessment	Foundation consists of wood plank flooring on grade covered with asbestos.	None
11	Galkeno 300	Residence (Building 11G)	PWGSC Baseline Assessment	Contains paint on interior	None
12	Galkeno 900	Storage Building	PWGSC Baseline Assessment	1m2 oil stain in the dirt	None
14	Bluebird	Cabin	ACG 2006 Site Inspection	Some paint on windows and doors.	None
			ACG 2006 Site Inspection	Asbestos fibre board in northeast corner	None
19	Onek	Building 19A	PWGSC Baseline Assessment	Weathered green paint exterior	None
		Building 19B	PWGSC Baseline Assessment	Weathered green paint exterior	None
		Building 19C	PWGSC Baseline Assessment	Weathered green paint exterior	None
		Building 19D	PWGSC Baseline Assessment	Yellow painted exterior; painted interior walls	None
		Building 19E	PWGSC Baseline Assessment	Asbestos tar paper on entire exterior of building	None
		Buildings 19J to 19M	PWGSC Baseline Assessment	Portion of one building still has asbestos tarpaper cladding	None
20	Klondike-Keno	Collapsed buildings	ACG 2006 Site Inspection	A number of collapsed buildings contain evidence of asbestos on them.	None
		Drill shack	ACG 2006 Site Inspection	Asbestos lining on the walls	None
22	Bellekeno	Powder magazine at 200 Level Adit	PWGSC Baseline Assessment	Interior walls lined with asbestos board.	None
		Wash house at 200 Level Adit	PWGSC Baseline Assessment	Lined with asbestos paper on exterior.	None
28	Shamrock	Main Site Building	PWGSC Baseline Assessment	Paint on interior walls	None
31	Stone	Dry building	ACG 2006 Site Inspection	Exterior of building is painted white.	Yes - sample not yet run
		Outhouse near middle adit	ACG 2006 Site Inspection	Possible asbestos on walls	Yes - sample not yet run
		Building 31C	ACG 2006 Site Inspection	The roof and wall panel are likely constructed with an asbestos-containing material.	Yes - sample not yet run
		Building 31D	ACG 2006 Site Inspection	Possible asbestos on walls	Yes - sample not yet run
32	Keno 700	Mess Hall	PWGSC Baseline Assessment	Exterior asbestos-board insulation siding.	Yes - 60-80% chrysotile
			PWGSC Baseline Assessment	Paint on exterior walls.	Yes - sample taken by Public Works but never analysed
		Bunkhouse	PWGSC Baseline Assessment	Exterior asbestos-board insulation siding.	Yes - 60-80% chrysotile
			PWGSC Baseline Assessment	Interior paint	None
		Manager's accommodation bulding and storage sheds	PWGSC Baseline Assessment	Interior paint	None
		Boiler Room and Water Supply Building	PWGSC Baseline Assessment	Insulation around boiler and lying in a pile on the floor	Yes - tested negative for asbestos.



UKHM Claim Package Building Contamination Inventory - September 2006

Assigned Site No.	Site Name	Location	Hazard Identified By	Description of Contamination Suspect	Samples Taken/Results
76	Townsire Mine	Office/Workshop	PWGSC Baseline Assessment	Possible that floor tiles contain 1-10% chrysotile as they are similar in appearance to the tile sampled at the Dixie site.	None
			PWGSC Baseline Assessment	White paint was applied to the interior, however, most of the paint had worn off.	
78	Elsa Village	Shack #2 beside the Sawmill	PWGSC Baseline Assessment	Exterior is clad with asbestos wallboard	None
	Wood Storage Building	PWGSC Baseline Assessment	Exterior is clad with asbestos wallboard	None	
	Pink and white bunkhouse	PWGSC Baseline Assessment	Exterior is clad with asbestos wallboard	None	
	Union Shop	PWGSC Baseline Assessment	Exterior is clad with asbestos wallboard	None	
	Snack bar	PWGSC Baseline Assessment	Exterior cladding containing asbestos was found along the base of the building.	None	
	Flotation Mill/Crusher House	PWGSC Baseline Assessment	Exterior walls are clad with approximately 1600m2 of asbestos shingles.	None	
	No. 2 Garage	PWGSC Baseline Assessment	Three of the exterior walls and the ceiling are covered with an asbestos material.	None	
	Light Vehicle Shop	PWGSC Baseline Assessment	Exterior walls are clad with an asbestos material.	None	
	Yellow Exploration Building	PWGSC Baseline Assessment	Exterior walls clad in asbestos.	None	
	Elsa Market	PWGSC Baseline Assessment	Asbestos tiles are suspected to be beneath the linoleum flooring.	None	
	Fire Hall	PWGSC Baseline Assessment	Approximately 30m2 of asbestos sheet cladding exists beneath the metal siding.	None	
	Building #34 (east of the Fire Hall)	PWGSC Baseline Assessment	Asbestos wallboard present underneath the metal siding.	None	
	Administration Building	PWGSC Baseline Assessment	All four exterior walls are clad in asbestos wallboard	None	
		PWGSC Baseline Assessment	Asbestos wallboard is painted yellow.	None	
	Men's Staffhouse	PWGSC Baseline Assessment	Suspect asbestos tiles were observed on the roof and inside the kitchen (25m3) and bathroom (15m3). Exterior walls are clad in asbestos.	None.	
	Apartment Building	PWGSC Baseline Assessment	Interior floors, exterior walls, and tar roof all contain suspect asbestos.	None	
	Roman Catholic Church	PWGSC Baseline Assessment	Exterior walls are clad in asbestos and the floor is covered in asbestos tile.	None	
	Flat Creek Residence #1	PWGSC Baseline Assessment	Residence has asbestos siding on the exterior walls.	None	
79	Elsa Tailings	Transmission Building 79A	PWGSC Baseline Assessment	Door is painted green	None
	Transmission Building 79B	PWGSC Baseline Assessment	Building is painted entirely green.	None	
81	Mackeno	Pumphouse	PWGSC Baseline Assessment	Asbestos-impregnated tar paper present on the building exterior and asbestos wallboard is present on the interior walls. Asbestos is considered non-friable in both of these forms.	None
		Debris noted on the surface of the site	PWGSC Baseline Assessment	Non-friable asbestos wallboard.	None

Appendix D

**Capacitor/Lamp Ballast/Transformer
Identification Chart**

Capacitor/Lamp Ballast/Transformer Identification Chart

<u>Capacitor</u>							
<u>Manufacturer</u>	<u>Phase Out Yr.</u>	<u>Plate Location</u>	<u>Date Code</u>	<u>Actual Date</u>	<u>Catalogue Code</u>	<u>Catalogue Code Translation</u>	<u>Comments</u>
Aerovox Canada Limited	1979	*	8252	52 week/1982	P193FC	P,Z,H,N=cap mat;193=capsize;G,R,F=oil with F as PCB	Date code with AE = manu in Canada;AH manu = USA
			after 1979		Z93P3417E	no PCB	NO PCB stamp
Note: Capacitor name plate stamped with kVar (5 kVar to 200 kVar range)							
<u>Lamp Ballast Manufacturers</u>							
Advance Ballast's	1978	#	1-90	Jan-90			
Allanson Division - Jannock Limited	1980	&			DM	April 1981	D=month,M=yr where A = 1969, skip Q; AM= NO PCB
	after 1987	&			0587	May 1987 if N prefix NO PCB, if no N, then PCB	
Canadian General Electric	Mar-78	&			17A 28 7 E	Final letter = PCB code. E,E1,ER,EW= no PCB; N, A, T=PCB	
		#	2811T	Nov-82		11=Nov; reverse 28 to 82 ; T=PCB	date code from 8703 onwards Mar 1978 = no PCB
Holophane Canada Inc	1980	^			BAA number	BAA number = PCB ; BAB number = no PCB	
Magnatek Polygon	1980		218 XX XX	before 1968			if High Power Factor before 1978 may PCB; or NO PCB
			J 67 12	Dec-67			
			W XX XX	after 1977			
Magnatek Universal Manufacturing	1978	#	C79	Mar-79			N suffix = no PCB; NO PCB Stamp
Philips Lighting	1978	#	575	May-75			
			1175	Nov-75			if no NO PCB stamp = PCB with this date ; NO PCB stamp
Sola Canada	1980	^	A68	Jan-68		A=month;68=yr	
		*			ACA 109	ACA=PCB ; ACB=no PCB on capacitor can	
Sola Electric (USA)	1980	^			61 F 311 EG	61=yr (1961);F=month(June);311 serial #;EG=plant location	Sola stopped ballast's prod'n in 1975; if manu before 1979=PCB
Westinghouse Canada	1978	^	A78	Jan-78			Westinghouse produced until 1970, then CGE with their label
			01-99	Jan			after Jan 1978- marked NO PCB
			if CGE see CGE code				

Notes

* = code stamped on capacitor can
= code stamped on ballast cover
& = code stamped on ballast name plate
^ = only HID lamps

Transformers

1. Dry fill - no cooling fins = no PCB's
2. Liquid fill with conservator tank - probably no PCB (uses mineral oil) - except if manufactured in Europe.
- 3a. Name Plate - Fluid content - if **Type** designation starts with O, such as ONS, ONAN, ONWF = mineral oil.
- 3b. Name Plate - Fluid content - If **Type** designation starts with L, such as LNAN, LNAF, LNWF = (flame retardant oil) **possible PCB if built before 1979**.
4. Name Plate - brand of cooling oil. (LIQUID or COOLANT)
Askarel Brand names with PCB's Apirolio,Aroclor,Asbestol,Chlophen, Chlorel, Chlorinol, Diaclor, DK, Dykanol, Elemex, Eucarel, Fenclor, Hyvol, Inclor, Inerteen, Kasnechlor, Montar, No-Flamol, Phenoclor, Pydraul, Pyralene, Pyranol, Pyrcolor, Saf-T-Kuhl, Santotherm FR, Sovol, Therminol FR HT

Note: Table compiled from various Environment Canada Reports (1991 & 1988)



Appendix E

Access Consulting Group Demolition Plan



**Elsa Reclamation and Development Company
Keno Hill Mine
Site Investigation and Improvements, Special Projects
Demolition Plan**

Date:

June 3, 2009

Prepared for:

Elsa Reclamation & Development Company
A Member of Alexco Resource Group
Suite 1150 - 200 Granville Street
Vancouver, BC V6C 1S4

Prepared by:



Access Consulting Group
A Member of Alexco Resource Group
#3 Calcite Business Center
151 Industrial Road
Whitehorse, YT Y1A 2V3

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List of Attachments

Attachment 1	Special Waste Permit
Attachment 2	Commercial Dump Permit
Attachment 3	Asbestos High Risk Training, Course Outline
Attachment 4	Alexco Resource Corp., Project Policies, Procedures, Field Safety and Environmental Manual
Attachment 5	Asbestos Pre-job Meeting Safety & Health Checklist

1.0 PROJECT DESCRIPTION

Approximately 211 buildings ranging in various sizes and building construction type reside throughout the Keno Hill Silver District and require demolition as part of the Existing State of Mine Closure Plan. It is estimated that 43,985 m³ of building waste is required to be buried throughout the district, including within the Elsa town site. The report completed by Access Consulting Group titled: "*Elsa Reclamation and Development Company, Keno Hill Mine, Site Investigation and Improvements, Special Projects, Hazardous Waste Assessment*", March 31, 2009 outlines the various hazardous waste identified in the buildings during the field assessment. As part of the physical hazard assessment plan, heritage consultation will be conducted with Indian and Northern Affairs Canada (INAC), Yukon Government Heritage, Keno City residents and First Nation of Nä Cho N'yak Dun (NNDFN) to determine if the buildings can be demolished or if they will be designated as a historical heritage site.

The hazardous waste assessment was completed in August 2008 and January/February 2009. Hazardous waste including batteries, partially full drums with unknown material, asbestos, PCB lamp ballasts, lead paint and containers with unknown chemicals were identified in the buildings throughout the district. Previous hazardous waste removal programs were completed throughout the district and included the collection, storage and removal of PCB, laboratory and mill chemicals. Hazardous waste will be removed as per the special waste permit with the exception of lead paint and asbestos prior to demolition. Attachment 1 is the current special waste permit.

The demolition plan will be completed over the next two to five years. The buildings are one to four stories high and were built anywhere from 1920 to 1990. The buildings mostly consisted of bunk houses, mess halls, grocery stores, mechanic and maintenance shops, storage sheds, utility/boiler rooms and geology/engineering buildings. A sawmill and a large floatation mill/crusher house is located in the Elsa town site. Most of the buildings are wood framed and sheeted construction, but there are a few steel framed structures located throughout the district. The majority of the buildings are wrapped in an asbestos tar paper or have asbestos tiles as siding.

An excavator will be used to demolish the buildings and a dump truck will be used, if required, to move the rubble to an approved disposal location. Elsa Reclamation and Development Company (ERDC), a wholly owned subsidiary of Alexco Resource Corp., has a commercial dump permit in place (see Attachment 2). A demolition plan outlining worker health and safety is required due to the asbestos building materials.

1.1 Objective

The objective of this demolition plan is to outline safe work procedures for the protection and safety of the workers, the public and the environment.

1.2 Tasks

The following tasks are involved within the demolition plan:

- 1) The buildings will be inspected as part of the heritage consultation and will be conducted with INAC, Yukon Government Heritage, Keno City residents and First Nation of Nä Cho N'yak Dun (NNDFN) to determine if the buildings can be demolished or if they will be designated as a historical heritage site. Items of interest will be salvaged and saved;
- 2) One supervisor will be available and onsite at all times and will be trained in asbestos awareness and removal. Attachment 3 is the course outline which has now been completed for site staff and workers;
- 3) All workers will be required to read, understand and follow the onsite 2008 Alexco Resource Corp. safety manual. The Safety Manual is attached in Attachment 4;
- 4) A pre job meeting for everyone involved will be conducted with WCB present onsite;
- 5) Daily tailgate safety meetings will be conducted by the onsite supervisor and a Safety Checklist (Attachment 5) will be completed;
- 6) Designated work areas will be clearly marked using warning signs, barricades and caution tape. Only authorized workers may enter the work area;
- 7) Smoking is not permitted in the work area, only after proper decontamination procedures for breaks have been followed;
- 8) The entrance and exit of the designated work area will be controlled;
- 9) Workers will wear proper personal protective equipment (PPE). Proper PPE includes:
 - a) Impervious disposable coveralls with hoods that resist asbestos fibre penetration. Gaps will be taped shut;
 - b) CSA steel toed rubber boots;
 - c) Rubber gloves;
 - d) Safety eye wear;
 - e) Hardhat;
 - f) Visible safety vests; and
 - g) Fitted respirators with a "100" HEPA filter.
- 10) Workers will be clean shaven and required to perform a fit test with the respirator. Three powered air purifying units will be made available to the workers if needed;
- 11) Compressed air will not be used to clean up or to remove dust from work areas or clothing;
- 12) Dry sweeping will not be permitted;
- 13) Prior to demolition, the building will be inspected again to ensure the utilities are disconnected. This will be a component of the safety checklist. Any hazardous waste such as batteries, partially full drums with unknown material, PCB lamp ballasts and containers with unknown chemicals; unknown containers will be removed, stored and handled as per the special waste permit. The buildings will be then given approval for demolition;
- 14) Large volumes of water will be available at the demolition site and the disposal area. Water will be applied to the work areas (depending on the specific situation

- and building) using either a 1 ½ inch fire hose with an adjustable nozzle or spray bottles with a surfactant. All work areas with potential Asbestos Containing Material (ACM) will be kept wet;
- 15) The air will be continually misted near workers who are removing asbestos or cleaning up waste materials;
 - 16) Wearing PPE, any uncontaminated (free of ACM or paint) metal, wood and building contents that can be easily collected will be segregated and salvaged, the work area will be kept misted;
 - 17) If asbestos is being segregated and removed from a building, either a hose or spray bottle (depending on what works better) will be used to apply water to the work area during the manual removal of asbestos tar paper or asbestos cement tiles. The asbestos will be either bagged right away or kept wet until it is disposed of in the landfill. The wood under the asbestos will not be salvaged or reused, only burned;
 - 18) Friable piping asbestos will be removed where possible using the glove bag system or covered in poly then cut and “capped”. If the glove bags or poly are not practical, the piping will be soaked using the fire hose or spray bottle with a surfactant during removal. Pipe with ACM will not be salvaged or reused only buried in the approved landfill onsite;
 - 19) If there are no uncontaminated materials in a building to be segregated, the inside and outside of the building will be soaked with water using at least a 1 ½ inch fire hose with an adjustable nozzle prior to demolition. As the excavator pushes the building down, a water mist will be applied to knock down any dust particles. Water is critical to prevent workers from being exposed to potentially hazardous dust;
 - 20) Workers and equipment will be positioned as best as possible upwind from the buildings and work areas;
 - 21) All workers in the designated work area will follow a decontamination protocol if leaving the work site;
 - 22) If waste material is required to be moved using a dump truck, loads will be soaked and then covered. Waste material will be assessed daily;
 - 23) Water will be used at the disposal location to knock the dust down while the dump truck is unloading and while the material is being moved into the waste cell. The dump trucks will be rinsed out once they are emptied. Residual waste will be collected in a small pond, allowed to evaporate, then covered;
 - 24) The waste that can not be burned will be disposed of as per the commercial dump/solid waste permit;
 - 25) The disposal sites will be decommissioned as per the appropriate Yukon Government *Environment Act Regulations*. Specifically, Schedule 1 Operating Standards for Dumps #4 (Closure and Abandonment of the dump). Decommissioning will include capping the disposal area with 1 m of compacted soil; if necessary a toe berm will be placed along the base of the disposal area to prevent slumping and the area will be revegetated similar to the surrounding area;
 - 26) Burning of uncontaminated wood (free of ACM and paint) will be done in accordance with the air emissions and/or burning permit;
 - 27) Uncontaminated metal (free of ACM) will be stockpiled in a designated area. Disposal options will be evaluated;
 - 28) The disposal areas will minimized and will be staked with a steel stake, marked using a GPS and mapped.
-

1.3 Decontamination Protocol:

- 1) A three stage decontamination trailer will be used. Partitions between rooms in the decontamination trailer will be self-closing so that each room can function as an air lock. They will be constructed of overlapping sheets of heavyweight poly to form a curtain;

Entering the contaminated work area:

- 2) Enter the clean room, remove all street clothes and personal belongings, and leave them in the clean room. Store clean, unused disposable coveralls in this room.
- 3) If the worker is not going to wear warm clothing underneath the coveralls, the disposable coveralls can be put on. If designated warm clothing is going to be worn, skip to step 4 and carry disposable coveralls to the transfer room;
- 4) Put on respirator and ensure that it fits and works properly;
- 5) Pass through shower room;
- 6) In the personal transfer room if the worker is already wearing the disposable coveralls, finish putting on any other PPE required, including gloves, steel toes rubber boots and safety head gear. If designated warm clothing is being worn, put on clothing, followed by the disposable coveralls then the remaining PPE; and
- 7) Enter the contaminated work area.

Leaving the Contaminated Work Area:

- 8) Before entering the personnel transfer room, remove all gross asbestos using wet rags or a vacuum cleaner equipped with a HEPA-filtered exhaust.
- 9) In the personnel transfer room, remove all protective clothing and equipment except the respirator. Hang designated warm clothing and place disposable protective clothing and any waste materials in a poly bag for disposal.
- 10) Enter the shower room and shower while wearing the respirator. After having an initial shower and thoroughly rinsing respirator face piece and its harness, remove the respirator and finish showering. (Adequate supply of tempered water and soap must be provided).
- 11) Enter the clean room and dress in street clothes. Thoroughly clean and disinfect the respirator, then store it in the clean room until its next use. Wet filters are not normally reused.

Decontamination continued:

- 12) A vacuum cleaner equipped with a HEPA-filtered exhaust will be used to clean up any dust or waste during work. The vacuums will be used to clean the cab of any equipment used during demolition. Where possible, vehicles will be rinsed out and wiped clean using wet rags at the end of the project;
- 13) Vehicles will be designated for the project and “clean” workers will not use equipment or trucks until the vehicles are cleaned. Workers cleaning vehicles will where applicable PPE and follow decontamination protocol;

- 14) For lunch and for any breaks during the day Workers will be required at minimum to decontaminate using vacuums and water around their faces and hands (hood may be pulled back). Breaks will be taken a safe distance away from the designated work area;
- 15) The WCHSB safety officer will be notified when the work is completed.

The attached safety manual outlines all environmental, workplace, safety and accident reporting and drug/alcohol substance abuse policies. Emergency contact information as well as emergency procedures are outlined in the manual. All workers onsite will be expected to read, understand, follow and enforce the policies. Following the demolition plan, No 14 Demolition Code of Practice and the safety manual will be critical in the protection of workers, the public and the environment.

Attachment 1
Special Waste Permit



DEPARTMENT OF ENVIRONMENT
ENVIRONMENTAL PROGRAMS

Whitehorse, Yukon
Certified true copy of original

Permit No: 41-199

Date: 5 June 01 Initials: JNM

SPECIAL WASTE PERMIT

Issued for the generation and storage of special wastes pursuant to
Parts 6 & 7 of the Environment Act and the Special Waste Regulations

Permittee: Elsa Reclamation & Development Company Ltd.

Mailing Address: Suite 1920 – 200 Granville Street, Vancouver BC, V6C 1S4

Site Location: Quartz mining lease owned by United Keno Hill Mine Ltd.
(105M/14 & 105M/13, 63° 55' 30.8", 135° 31 7.4")

Phone: Vancouver: (604) 633-4888 Fax: (604) 633-4887
Phone: Whitehorse: (867) 668-6463 Fax: (867) 667-6680

In accordance with your application, Elsa Reclamation & Development Company Ltd., represented by yourself, is hereby permitted to generate or store the following:

> waste oil, waste batteries, waste antifreeze, waste solvents, waste fluorescent bulbs, and empty aerosol cans,
hereinafter referred to as "listed special wastes", subject to the following conditions:

PART 1. GENERAL

1. This permit is restricted to special wastes generated by the permittee.
2. The permittee shall comply with any applicable requirements in all federal, territorial, and municipal legislation, including the *Environment Act*, the *Special Waste Regulations*, and the *Yukon Environmental and Socio-Economic Assessment Act*.
3. All associated personnel (employees, contractors or volunteers) involved with the handling or management of any of the listed special wastes shall be knowledgeable of the conditions and requirements specified in this permit, and a copy of this permit shall be available to all personnel at each location where the listed special wastes are handled, stored or transferred.
4. The permittee shall allow an environmental protection officer, at any reasonable time, to enter any vehicle, place or premise under the permittee's ownership or occupation, other than a private dwelling, and inspect any activity which is subject to this permit.
5. The permittee shall provide notice in writing to the Environmental Programs Branch (Branch) prior to any significant change of circumstances at a permitted operation, site, or business, including without limitation:
 - a) closure of the facility;

- b) a change of ownership of the facility;
 - c) generating or handling special wastes other than those authorized by this permit; or
 - d) a change in the mailing address, site location or phone number of the permittee.
6. The permittee shall ensure that all associated personnel (employees, contractors or volunteers) involved with the handling or management of the listed special wastes receive the appropriate training for the purposes of carrying out the requirements of this permit.

PART 2. TRANSPORT AND TRANSFER

1. The permittee shall not transport the listed special wastes other than within the site location.
2. The permittee shall ensure that special wastes are transported, in accordance with applicable transport laws, to a facility permitted in the Yukon or another jurisdiction to receive the listed special wastes, by a carrier permitted in the Yukon or another jurisdiction to receive and transport the listed special wastes. If the receiving facility is in the Yukon, both the facility and the carrier must be permitted in the Yukon.
3. A movement control document as prescribed by the Branch shall be completed to document each shipment of listed special wastes and copies of the movement control document shall be distributed in the manner described thereon.
4. The permit number **YG41-199** shall be used as the Provincial Identification Number on movement control documents used for the transport of the listed special wastes.
5. The permittee shall ensure that all listed special wastes are transported and transferred in such a manner as to prevent their release into the environment.
6. The permittee shall ensure that all vehicles carrying any of the listed special wastes are secured to prevent access by unauthorized persons.

PART 3. STORAGE AND HANDLING

1. The permittee shall ensure that the listed special wastes are handled and stored in such a manner as to prevent their release into the environment. This includes, but is not limited to, ensuring that:
 - a) all drums and other portable containers containing the listed special wastes are covered or stored out of the weather to prevent container degradation from the sun or contamination by water from snow or rain;
 - b) all drums and other portable containers containing the listed special wastes are stored off the ground to prevent container degradation by ground moisture; and
 - c) all listed special wastes stored in unsuitable or leaking containers are immediately removed or transferred to intact containers.

DEPARTMENT OF ENVIRONMENT
ENVIRONMENTAL PROGRAMS
Whitehorse, Yukon
Certified true copy of original

Date: 15 June 07 Initials: JHM

2. The permittee shall ensure that incompatible substances are stored separately to prevent contamination, fires, explosions, gaseous emissions, leaching or other discharges, or other dangerous conditions.
3. The permittee shall ensure that the contents of all storage containers are clearly marked and visible on each container.
4. The permittee shall ensure that the residue at the bottom of any container used for the storage of dangerous goods or special wastes is not drained to the environment. Such residue shall be segregated and treated as a special waste until proven otherwise.
5. The permittee shall not mix waste oil from piston engine aircraft with other waste oil.
6. The permittee shall only mix or dilute a listed special waste with another substance where such mixing or dilution is specifically authorized by this permit or by an environmental protection officer as an acceptable treatment/disposal option for the listed special waste.
7. The permittee shall ensure that all containers or areas used for the storage of the listed special wastes are secured to prevent access by unauthorized persons.
8. A person who uses a container to store or transport the listed special wastes shall:
 - a) keep the container closed at all times during storage or transport; and
 - b) not open, handle or store the container in a manner which may cause it to leak or rupture.
9. The permittee shall not store special waste in storage tanks unless specifically authorized by this permit.

PART 4. SPILLS

1. The permittee shall contact either an environmental protection officer, or the 24-hour Yukon Spill Report Centre (**867-667-7244**) as soon as possible under the circumstances in the event of a release, spill, unauthorized emission, discharge, or escape of any of the listed special wastes.
2. The permittee shall ensure that appropriate clean-up equipment (such as sorbent, shovel, broom, bucket, gloves, boots, etc.) is in a readily available location at all locations where the listed special wastes are handled or stored.
3. The permittee shall ensure that emergency spill procedures are posted at all locations where the listed special wastes are handled or stored, and that all associated personnel (employees, contractors or volunteers) are familiar with those procedures.

PART 5. INSPECTIONS & RECORD KEEPING

1. The permittee shall ensure that storage tanks and storage containers are inspected:
 - a) weekly in terms of visual inspection for leaks of the listed special wastes;

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- b) monthly in terms of volume of listed special wastes;
 - c) annually in terms of tank/container quality, piping, and auxiliary equipment; and
 - d) upon request from an Environmental Protection Officer.
2. The permittee shall keep records of:
- a) inspections performed in accordance with subsection 1 above, and the results of those inspections;
 - b) the name of any company that transports listed special wastes from the facility;
 - c) the location to which the listed special wastes are transported; and
 - d) a copy of any movement control documents used to transport wastes to or from the facility.
3. The permittee shall keep all records required by this permit for a minimum of three years and make them available upon request for inspection by an Environmental Protection Officer. Records shall be kept in a format acceptable to the Branch.

THIS PERMIT SHALL EXPIRE ON DECEMBER 31ST, 2009.

J-B
Director, Environmental Programs Branch
Department of Environment

June 14, 2007
Date

I, Brad A. Thrail [print name clearly], authorized representative of Elsa Reclamation & Development Company Ltd., have read and understood the terms and conditions of this permit.

Bill Lee
Authorized Representative
Elsa Reclamation & Development Company Ltd.

5/30/07
Date

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Attachment 2
Commercial Dump Permit



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Permit No: 81-012

Date: 15 June 07 Initials: JCVM

COMMERCIAL DUMP PERMIT

Issued for the Construction and Operation of a Commercial Dump
Pursuant to Parts 6 & 7 of the Environment Act

Permittee: Elsa Reclamation & Development Company Ltd.

Mailing Address: Suite 1920 – 200 Granville Street, Vancouver BC, V6C 1S4

Site Location: Quartz mining lease owned by United Keno Hill Mine Ltd.
(NTS 105M/14 & 105M/13, 63° 55' 30.8" N, 135° 31 7.4" W)

Phone: Vancouver: (604) 633-4888

Fax: (604) 633-4887

Phone: Whitehorse: (867) 668-6463

Fax: (867) 667-6680

In accordance with your application, Elsa Reclamation & Development Company Ltd., represented by yourself, is hereby permitted to operate a dump for commercial purposes or for the disposal of solid waste generated by commercial activities or enterprises, hereinafter referred to as the dump, at the above location, subject to the following conditions:

PART 1. GENERAL

1. The permittee shall comply with any applicable requirements in all federal, territorial and municipal legislation, including the *Environment Act*, the *Solid Waste Regulations*, the *Public Health & Safety Act*, and the *Yukon Environmental and Socio-economic Assessment Act*.
2. All associated personnel (employees, contractors or volunteers) involved with the handling or management of any wastes covered by this permit shall be knowledgeable of the conditions and requirements of this permit, and a copy of this permit shall be in their possession at each site.
3. The permittee shall allow an environmental protection officer, at any reasonable time, to enter any place or premise under the permittee's ownership or occupation, other than a private dwelling, and inspect any activity which is subject to this permit.
4. The permittee shall provide notice in writing to the Environmental Programs Branch (Branch) prior to any significant change of circumstances at a permitted operation, site or business, including without limitation:
 - a) closure of the facility;
 - b) a change in the ownership of the facility;
 - c) the opening of a new cell;
 - d) changing from a burn to a no-burn operation;
 - e) a change in the mailing address and/or phone number of the permittee.
5. The permittee shall ensure that all associated personnel (employees, contractors or volunteers) involved with the handling or management of any wastes covered by this permit receive the

appropriate training for the purposes of operating the facility and carrying out the requirements of this permit.

6. Where conflicts exist between the application for a permit, closure plans, or this permit, the permit shall prevail.
7. The permittee shall not generate, store, transport or otherwise handle special waste except as authorized by a special waste permit issued by the Branch.

PART 2. OPERATIONS

1. Solid waste shall be handled and disposed of in a manner that, in the opinion of a Public Health Officer, neither causes nor is likely to cause a threat to public health.
2. Solid waste shall be handled and disposed of in a manner that, in the opinion of an Environmental Protection Officer, neither causes nor is likely to cause:
 - a) an adverse effect;
 - b) windblown litter to be deposited outside the property boundary of the facility; or
 - c) attraction to wildlife.
3. The permittee shall develop and maintain a fire safety/emergency plan including notification procedures and post a list of emergency phone numbers. The permittee shall ensure that all associated personnel (employees, contractors or volunteers) involved with the handling or management of any wastes covered by this permit shall be familiar with this plan.
4. The permittee shall ensure that the active working area of the dump is located at least 100m from the high water mark of any waterway or water body and at least 1.5m from the groundwater table, and shall be located in a manner that neither solid waste nor leachate enters surface water.
5. The permittee shall make every reasonable effort to ensure that surface water run-off is directed away from the active disposal area.
6. The permittee shall ensure that the active working area of the dump is located at least 50m from any highway, as defined by the *Highways Act*, and has a screen of vegetation of at least 10m depth to prevent the dump from being visible from the highway.
7. Solid wastes shall not be stored for a period of greater than seven days prior to disposal.
8. The permittee shall ensure that solid wastes are covered weekly with approximately 10 cm of gravel, soil or other comparable cover material. This does not apply between November 15 and April 15 if gravel, soil or other comparable cover material cannot reasonably be obtained.
9. The permittee shall establish and maintain segregated areas for the deposit of all types of materials deposited at the facility, which may include but is not limited to:
 - a. domestic garbage;
 - b. scrap metal;
 - c. untreated brush and wood products;
 - d. construction/demolition debris;

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- e. tires;
 - f. asbestos;
 - g. animal carcasses or animal parts;
 - h. units containing refrigerant gas (*fridges, freezers, air conditioners*);
 - i. other white goods (*washers, dryers, stoves, dishwashers, etc.*); and
 - j. compost.
10. The permittee shall ensure that tires are kept reasonably clean and not buried or burned, and that they are taken periodically to a municipal or community dump or other licensed tire depot. Notwithstanding this, the permittee may dispose of tires with a rim size greater than 24.5" by burial.
11. In the event of the intended closure of the dump, the permittee shall submit a Closure Plan to the Branch, and obtain approval prior to commencement of any work to close the site.

PART 3. SPILLS

1. The permittee shall ensure that incompatible substances are stored separately to prevent contamination, fires, explosions, gaseous emissions, leaching or other discharges, or other dangerous conditions.
2. The permittee shall ensure that substances are stored so as not to cause spills, leakage, leaching or other discharges or releases of the substances from their storage containers.
3. The permittee shall contact either an Environmental Protection Officer or the 24-hour Yukon Spill Report Centre (867-667-7244), as soon as possible under the circumstances, in the event of a release, spill, unauthorized emission, discharge or escape of any material listed in the Spills Regulations.
4. The permittee shall ensure that appropriate clean-up equipment (such as sorbent, shovel, broom, bucket, gloves, boots, etc.) is in a readily available location on site.
5. The permittee shall ensure that emergency spill procedures are written down and available to all associated personnel when working on-site and that all associated personnel are familiar with those procedures.

PART 4. SECURITY

1. The permittee shall provide and maintain an electric exclusion fence that will prevent wildlife from entering those portions of the active working area where domestic garbage or compost is stored, burned, or otherwise handled. If the site is not otherwise secured from unauthorized entry, the entrance to the fence shall be an electrified rigid swinging gate. If the site is otherwise secured from unauthorized entry, the entrance to the fence shall be either an electrified rigid swinging gate or an electrified Texas gate.
2. The fence referenced in 3(1) above shall be activated from May 1st to October 31st, or when the presence of tracks or other signs indicates that animals have been frequenting the area, or upon the request of an environmental protection officer.

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PART 5. INSPECTIONS & RECORD KEEPING

1. Electric fences shall be inspected once weekly or as required by an environmental protection officer and maintained as necessary during periods of activation as specified in Part 5(2) to ensure that:
 - a) the fence is sufficiently charged to deter wildlife; and
 - b) there is no vegetation or windblown litter or other items along the perimeter of the fence or contacting the fence that may act as a ground.
2. The permittee shall ensure that surface water run-off is inspected during spring melt and as required by an environmental protection officer. Such inspections shall include, but not be limited to, observations regarding flow rate, general flow direction, and any noticeable effects the run-off is having on the facility.
3. The permittee shall keep records of:
 - a) all inspections carried out under this permit (including the name of the person conducting the inspection, the date of each inspection, any observations recorded during the inspection, actions taken as a result of those observations, etc.);
 - b) results of leachate, surface and groundwater testing, where applicable (including interpretations of monitoring results); and
 - c) any spills or leaks occurring at the facility (as defined in the *Spills Regulations*, including substance involved, estimated quantity, date of observation of spill/leak, clean-up procedures implemented, etc.),and shall maintain these records for a minimum of three years.
4. The permittee shall permanently retain an updated, detailed site plan showing the locations of all active and closed cells and segregation areas, and shall produce this plan on request from an environmental protection officer.

THIS PERMIT SHALL EXPIRE ON DECEMBER 31ST, 2009.

J-B
Director, Environmental Programs Branch
Department of Environment

JUNE 14, 2007
Date

I, Brad A. Thrall [print name clearly], authorized representative of Elsa Reclamation & Development Company Ltd., have read and understood the terms and conditions of this permit.

BAD
Authorized Representative
Elsa Reclamation & Development Company Ltd.

5/30/07
Date

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Attachment 3
Asbestos High Risk Training, Course Outline

From: Norman Richardson [mailto:nrichardson@pac-bc.com]

Sent: March 13, 2009 3:53 PM

To: Kurt Neunherz

Subject: RE: Asbestos High Risk Training

Hi Kurt,

Please see the attached course outline for you info and records. If you have any questions, please contact me at your convenience.

Very Kind Regards,

Norman Richardson, AScT, CRSP, CHSC

Senior Project Manager

Pacific Environmental Consulting

Tel : 604.980.3577 Ext. 234 Fax : 604.980.2188 Cell : 604.315.4498

nrichardson@pacificenvironmentalbc.com www.pacificenvironmentalbc.com



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Background

- What is Asbestos?
- Uses of Asbestos in Buildings
- Asbestos-Related Diseases

Regulations, Risk Assessments, Asbestos Exposure Control Plan

- WorkSafeBC Regulations
- Asbestos Exposure Control Plan (AECP)
- Risk Assessment

Worker Protection, Work Procedures and Checklists

- Respirators
- Respirator Fit Testing
- Respirator Fit Test Form
- Respirator Cleaning and Disinfecting
- Respirator Inspection Checklist
- Personal Protective Clothing
- Air Monitoring
- Low Risk Procedures
- Checklist for Repair and Minor Work
- Bulk Sample Collection
- Procedures for Moderate Risk (Type II) Work
- Checklist for Moderate Risk (Type II) Work
- Repair of Damaged Asbestos Containing Materials
- Procedures for High Risk work
- Procedures for Emergency Work
- Asbestos Waste Storage, Transport and Disposal
- Request for information procedures

Build a High Risk “Mock-up” (Practicum)

Attachment 4

**Alexco Resource Corp.
Project Policies, Procedures, Field Safety
and Environmental Manual**

ALEXCO RESOURCE CORP.

KENO HILL SILVER DISTRICT

Project Policies, Procedures, Field Safety and Environmental
Manual

Updated 15 March 2008

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ALEXCO RESOURCE CORP

Alexco Resource Corp. is a precious metals exploration company with a silver focus and a growing environmental services business. The Company and its wholly-owned subsidiaries, Access Mining Consultants Ltd. and Alexco Resource (US) Corp., provide mine related environmental consulting services, reclamation and mine closure services, and environmental remediation technologies to both government and industry clients.

Alexco's business is to manage risk and unlock value at mature, closed or abandoned mine sites through integration and implementation of the Company's core competencies which include management of environmental services, implementation of innovative treatment technologies, execution of mine reclamation and closure operations and if appropriate, rejuvenation of exploration and development activities.

Alexco is traded on both the Toronto Stock Exchange (AXR) and the AMEX Exchange (AXU). As a result, the Company's activities are subject to surveillance by both Canadian and US Securities and Exchange Commissions. The rules and regulations of the SEC prohibit unauthorized disclosure of most of our activities. This includes exploration plans, drill results and other sensitive information. If you have questions regarding what can be said or released, please contact the Vice President-Exploration or District Manager.

All of Alexco's activities in the Keno Hill Silver District are under the jurisdiction of various Territorial and Federal governmental regulations and permits. These regulations and permits are very specific about what activities can and can not be conducted. Some, such as the Water License dictate water quality that we must maintain, sampling parameters, etc. If we are out of compliance with any of the terms of our permits and licenses, the Company can be fined substantial amounts of money. If you have questions please contact the District Manager.

ALEXCO RESOURCE CORP OFFICES

LOCATION	ADDRESS	TELEPHONE
VANCOUVER Corporate office	Suite 1150 200 Granville Street Vancouver, BC V6C 1S4	604-633-4888 604-633-4887 (Fax)
WHITEHORSE	#2 Calcite Business Centre 151 Industrial Road Whitehorse, YT Y1A 2V3	867-633-4881 867-633-4882 (Fax)
ACCESS CONSULTING GROUP	#3 Calcite Business Centre 151 Industrial Road Whitehorse, YT Y1A 2V3	867-668-6463 867-668-6680 (Fax)
ELSA	PO Box # 7 Elsa, YT Y0B 1J0	867-995-3113 867-995-2600 (Fax)
FLAT CREEK CAMP	PO Box # 7 Elsa, YT Y0B 1J0	

ALEXCO OFFICERS

NAME	TITLE	PHONE NUMBER
Clynton R. Nauman	President & CEO	604-250-3293 (cell)
Brad Thrall	Chief Operating Officer	604-250-6501 (cell)
David Whittle	Chief Financial Officer	
Rob McIntyre	VP Business Development	867-334-6002 (cell)
Dan Cornett	VP Technical Services	867-334-5104 (cell)
Stan Dodd	VP Exploration	360-319-1882 (cell)

POLICIES

COMPANY HEALTH AND SAFETY COMMITMENT

COMMUNICATION WITH MANAGEMENT

Alexco Resource Corp. management is constantly looking for ways to improve our Safety Program. We appreciate and request any suggestions that will improve our programs.

We provide direction to our employees through our safety policies and meetings. Our Managers make job-site visits to observe operations and ensure Standard Work Procedures are being followed. Workers are encouraged to present any concerns or questions they may have regarding the Safety Program to Management. Suggestions can also be directed to the Safety Coordinator and the Mine Manager.

PROGRAM EVALUATION

Our Safety Program will be evaluated once per year by Management to ensure Alexco is operating within the established guidelines and to gauge the effectiveness of the program. All new guidelines required by the Worker's Compensation Board and any viable improvements suggested by employees will be incorporated into the program at this time. These periodic evaluations enable management to include new technology and/or work procedures onto the Safety Program.

OBJECTIVE

The objective of our Safety Program is to eliminate accidents. In order to achieve this objective, all employees must follow the Standard Work Procedures listed in this manual (Safe Work Practices), report any unsafe situations to their supervisor as they arise and report all safety violations as they occur. The end result should be a safer work environment with fewer accidents, which will benefit workers and their families as well as the Company. We are committed to safety excellence and strive for zero accident frequency. With input from workers, supervisors and management we hope to realize this objective.

ENVIRONMENTAL POLICY

Alexco Resource Corp. is committed to conducting all of our operations in a responsible manner to minimize the impact on the environment. Compliance with all applicable laws, regulations and standards is mandatory and essential to uphold our commitment to maintaining and respecting the natural environmental.

Alexco Resource Corp. will strive for excellence in its management of the environment by allying pollution prevention principles and addressing environmental implications in our decisions, activities and expenditures.

Alexco Resource Corp. will use best management practices, modern control methods and processes that are economically feasible and technically sounds to minimize waste generation and pollutant discharge from company activities.

Alexco Resource Corp. will maintain a proactive approach to protecting the environment by regularly assessing our environmental performance; training our workforce to recognize environmental issues and ensuring that the spirit of this policy is upheld at all company projects.

Alexco Resource Corp. considers environmental protection to be an important part of our corporate responsibility. At each project and in conjunction with other contracted companies, site-specific procedures will be developed to minimize the impact on the environment as operations are carried out.

Environmental Overview of Issues:

All of the work at Keno Hill and surrounding area for the 2008 season has been permitted through the Ministry of Energy, Mines and Resources of the Yukon Territory. Alexco Resource Corp. is committed to carry out the work according to industry best practices, as well as to reclaim any disturbance we create. Each winter, a summary report on the work carried out on the property, and the subsequent reclamation will be completed. Baseline data and studies have been initiated and will be carried out the same time as the exploration continues. Neil Salvin, Mining Lands Officer and other official inspectors may appear on the property any time.

Listed below are some key terms and conditions of our permits to be aware of:

General District conditions:

The Keno Hill Silver District has been mined intermittently since about 1913. There are many physical hazards related to this mining activity, including but not limited to: open shafts and holes, open pits with unstable walls, open adits and portals, dilapidated, dangerous buildings, old dumps containing unknown hazards, wires of all types, and various others. Alexco Resource Corp. is under contract to reclaim many of these hazards, and has several reclamation programs, either in progress or planned in the future.

Water is draining from several of the old mine workings. Do not drink the effluent from any mine opening. Alexco Resource Corp. is under contract to treat the effluent from four adits: Silver King, Galkeno 300, Galkeno 900 and Bellekeno 625 and the Valley Tailings facility. All of these effluents are currently being treated with a "milk of lime" solution, which is a strong alkaline solution. Do not drink or otherwise come in contact with this solution. If you do, call First Aid.

Drill Sites:

Reclamation of sites following drilling involves removing timbers and casing; plugging holes with bentonite and cement; marking the hole location; removal of garbage, fuel drums from site; clean up fuel/oil spills with fertilizer; spread cut brush and understorey vegetation over site; backfill sumps and recontour site as feasible.

Timber cutting:

We are permitted to cut a certain volume (small) of timber only. Please do not cut timber unless absolutely required.

Photographs:

Photographs should be taken before, during and after any disturbance and reclamation on the property. These photos will be submitted with the annual summary report on the work and reclamation on the property.

ALCOHOL & CONTROLLED SUBSTANCE ABUSE POLICY

Alexco Resource Corp. (Alexco) strives to provide a safe workplace for all employees and establishes programs and policies to promote high standards for employee health. Alexco has compelling interest to eliminate the illegal use of drugs and misuse of alcohol from our workplace.

Illegal drug use and abuse as well as alcohol use and abuse jeopardizes the health and safety of not only the user but fellow employees and the safety of the general public. An employee who uses or abuses drugs or alcohol is more likely to become involved in serious accidents. Furthermore, the drug and alcohol abuse directly, or indirectly, increases absenteeism and reduces productivity. The adverse affects of use and misuse of these substances result in increased utilization of sickness and disability benefits, and increased insurance premiums. Finally Alexco owes an obligation to our customers to perform our work safely, efficiently, and on schedule. Alcohol and drug abuse undermines the accomplishment of this goal.

While Alexco has no intention of intruding into private lives employees are expected to be in condition to perform their duties throughout their workday. Employee involvement with alcohol and drugs, off-the-job as well as on-the-job can have an impact on the workplace and our ability to accomplish our goal of a work environment free from the affects of alcohol and drug abuse.

In order to monitor and manage the use of alcohol and drugs in the workplace, Alexco has implemented an alcohol and drug zero tolerance policy. All employees are required to participate.

In addition to achieving a drug and alcohol free workplace it is our commitment to preserve the privacy and personal dignity of each employee and applicant. All employees of Alexco will be affected by this policy.

RESPECTFUL WORKPLACE POLICY

Alexco Resource Corp. (Alexco) is committed to providing a work environment free from all forms of discrimination, including personal and sexual harassment, and to ensure that all individuals are treated with dignity and respect.

Workplace discrimination, harassment and/or any form of disrespect to a co-worker and/or any member of the public while under Alexco's employ is unacceptable and will not be tolerated.

Discrimination is defined as any differential treatment of an individual based upon his or her membership in a particular group, rather than on their personal merit.

Harassment is defined as any objectionable conduct, comment or display that is made on the basis of any grounds protected by human rights legislation, including but not limited to race, creed, religion, colour, sex, sexual orientation, marital status, family status, disability, age, nationality, ancestry, or place of origin, and constitutes a threat to an individual's health or safety, or is known, or ought reasonably to be known, to be unwelcome.

Harassment need not be intentional, nor directed at a specific individual and includes but is not limited to derogatory remarks, jokes, innuendoes, propositions, teasing, threats, displaying abusive pictures, cartoons, etc. touching, pinching, patting, rubbing, leering, tripping, pushing, etc. and includes physical assault.

If you are harassed or discriminated against:

If you believe that you have or are being harassed or discriminated against in your employment at Alexco, you should tell the individual his/her behavior is unwelcome and tell him/her to stop. Keep a record of the incidents and if after asking to stop his/her behavior the harassment continues, or if you are uncomfortable dealing directly with the harasser, report the problem to someone in authority. Persons in authority include: immediate supervisor, division manager, safety director, human resources, personnel, or any supervisor within the Alexco organization with whom you feel comfortable.

Dealing With a Complaint:

All complaints of this nature are passed on to the Division Manager of Alexco, who will determine the means of resolving the complaint. He will direct a prompt investigation of the complaint or, if appropriate, direct an informal resolution. While all complaints and ensuing investigations will be kept strictly confidential, the complainant and the alleged harasser will both be interviewed along with any other individuals who may be able to provide relevant information.

If the investigation reveals evidence to support the complainant, the harasser will be disciplined appropriately. Discipline may include attendance at an appropriate training program, suspension or dismissal.

False accusations damage workplace morale and the reputation of the accused. Individuals lodging false complaints that are unfounded and/or intended to hurt the reputation of the accused will be disciplined.

Freedom from Reprisal

Regardless of the outcome of a harassment or discrimination complaint made in good faith, the employee lodging the complaint, as well as anyone providing information, will be protected from any form of retaliation from either co-worker or supervisors.

Responsibility of Management

It is the responsibility of any person who is in a management position to take immediate and appropriate action to report or deal with incidents of harassment or discrimination, whether brought to their attention or personally observed. Under no circumstances should a legitimate complaint be dismissed or downplayed nor should the complainant be told to deal with it personally.

WORKPLACE VIOLENCE POLICY

It is Alexco Resource Corp. (Alexco) policy to promote a safe work environment for all employees, subcontractors, and visitors. Violence of any type committed by or against co-workers, subcontractors or visitors will not be tolerated.

Alexco has a “zero tolerance” policy towards workplace violence. Any employee inciting workplace violence will be subject to immediate dismissal and police intervention.

For the purposes of this policy, workplace violence includes verbal abuse, bullying, physical force, threats and threatening gestures.

Alexco is committed to providing our employees with an appropriate level of protection from the risks associated with workplace violence, by investigating reported incidents on acts of workplace violence in a timely manner and taking necessary action on acts of violence and providing appropriate support for victims of workplace violence.

All employees have a responsibility to become familiar and comply with this policy, report all incidents of workplace violence and participate in work site assessments and implement control measures to mitigate associated risks as required.

The supervisor at each work site will ensure that a workplace violence policy statement is in place and that all employees are made aware of the policy and its contents.

JOINT OCCUPATIONAL HEALTH AND SAFETY COMMITTEE POLICY

The management of Alexco Resource Corp. shall maintain an Occupational Health and Safety Committee as required by the WCB Occupational Health and Safety Regulations And the Health and Reclamation Code for Mines in Yukon.

The committee will be established in accordance with the terms of reference as set out in Section 12 of the OH&S Act and the requirements of the Safety Code for Mines in Yukon.

INSPECTION POLICY

Purpose

The purpose of this policy is to control losses to human and material resources by identifying and correcting unsafe acts and conditions.

Policy

Alexco will maintain a comprehensive program of safety and inspections at all facilities and job sites.

Responsibilities

The District Manager is responsible for the overall operation of the program.

Supervisors are responsible for directing formal inspections on job sites that they control and for involving workers in such inspections.

Supervisors are responsible for conducting ongoing informal inspections of areas where their workers are working.

Workers are responsible for participating in and contributing to the Inspection Program.

SAFETY TRAINING POLICY

Purpose

The purpose of this policy is to provide for general and specialized safety and related training throughout all levels of the organization.

Policy

Alexco Resource Corp. will provide, and employees will participate in all safety and related training that is necessary to minimize losses of human and physical resources of the company.

This training will include but is not limited to:

- Safety orientations for newly hired personal
- Job specific training;
- Safety training for supervisor's and management;
- Task and trade specific training and certification;
- Specialized safety and related training; and
- Refresher and update training.

SAFETY ENFORCEMENT POLICY

The management of Alexco Resource Corp. is committed to the safety excellence of our employees by providing an injury and accident free workplace. All employees are to abide by the regulations, safety rules, and the use of safe work practices and safe job procedures.

Safety violations will be handled in an objective but firm manner. The enforcement progression follows the following documentation at each stage:

Verbal Warning

This includes discussion of the violation and a warning of more severe action, should the offence be repeated.

Written Warning

This involves a discussion about the violation and a written record of the violation and reprimand. A copy is given to the employee and another is put on the employee's personal file. Warning of more severe action should the offence be repeated is given.

Suspension Without Pay

This includes release from all job responsibilities without pay for a period of time determined by the severity of the substandard act. Suspensions will be documented in a letter to the employee and a copy of the letter will be placed in the employee's personal file. The employee is informed at this point that discharge will result if the substandard behavior is repeated.

Suspension

This will only be used when all other attempts to correct the sub standard behavior have failed. Formal discharges will be documented in a letter to the employee. This will only be taken as a final step when sound judgment indicates no other alternative.

EMERGENCIES

EMERGENCY PROTOCOL

In the event of a SERIOUS INJURY OR INCIDENT, you must immediately notify:

1) The Acting District Manager:

NAME	WORK	HOME
Rob McIntyre District Manager	867-995-3113	
Stan Dodd Vice President-Exploration	867-995-3113	360-647-1375
Tim Hall Manager-Project Development	867-995-3113	907-790-2245
Peter Johnson District Engineer	867-995-3113	867-993-5911
Kael Hanak Reclamation Manager	867-995-3113	867-393-2741

And

2) Primary First Aid Responder on Site

NAME	WORK	HOME
Colleen Geddes Safety Coordinator	867-995-3113	867-667-6155
Jennifer Dobbie First Aid Assistant	867-995-3113	867-995-5911
Harlan Schilling First Aid Assistant	867-995-3113	
Andrea Mansell Administration Assistant	867-995-3113	

EMERGENCY TELEPHONE NUMBERS

Mayo Nursing Station and Ambulance	867-996-4444
Mayo Fire Department	867-996-2222
Mayo RCMP	867-996-5555
TransNorth Helicopters (Mayo)	867-996-2355
Forest Fire (Wild Fire)	1-888-798-3473 (fire)
Yukon Oil Spill Hotline (>200 litres)	867-667-7244
Chief Mining Inspector	867-334-2002
Mayo Mining Lands Officer	867-996-2568
Crisis-Line Mental Health	1-877-442-2828
Poison Control (Whitehorse)	1-888-393-8700

Alexco Office Elsa

1 867 995 3113

Alexco Office Whitehorse

1 867 633 4881

EMERGENCY PROCEDURES

INJURED WORKER

1. Call for First Aid and transportation assistance. Call “**First Aid, First Aid, First Aid**” on **Radio Channel 3**. Give the location of the injured worker and description of the injury if possible. **STAY CALM**.
 - Ensure the accident site is safe to approach the injured worker.
 - If not, notify via radio the unsafe situation
 - If safe to do so approach victim, do not move victim, administer first aid if qualified and keep comfortable/warm
 - Assist first aid responders where needed
2. Depending on severity of the injury, the injured worker may either be transported by company vehicle or Alexco Ambulance to the Mayo Nursing Station. If the injured worker is located away from a road and not accessible, Trans North Helicopters has a Bell 206 Jet Ranger based at the Mayo airport. When contacting emergency services be sure to indicate the location of the injured person and whether a helicopter is needed.
3. If the patient requires medical evacuation first aid attendant, mine manager or designate will contact Mayo Nursing Station. Provide details on the nature of injury, the location of the injured worker; coordinate the appropriate transportation. Specify whether the injured worker is on the worksite, or on the highway north or south of Silver Trail Inn. If the injury occurred at a location where a helicopter would be necessary, give the approximate distance from the road.
4. First aid treatment must be provided until advanced medical care is obtained. Injury assessment is made by the staff at the Mayo Nursing Station. It will be their decision to determine whether the injured worker will be transported to Whitehorse for further medical care.

LOST WORKER/ VEHICLE ACCIDENT

- Search the traverse area to begin by person in the area.
- Ambulance and RCMP to be notified in case of vehicle accident. Call the numbers outlined at the top of the page.

FUEL SPILL

Fuel spills are considered an emergency. Stop the spill if you can.

- **STOP LEAKS IF NO RISK IS INVOLVED.**
- **CHECK** to determine if any injuries have occurred as a result of the spill.
Check for FIRE HAZARD.

If FUEL BARREL is leaking, place hole at high point until fuel can be removed to another barrel. Empty barrels are to be left at all fuel cashes for this purpose. Absorbent padding can be used to minimize spillage during transfer.

If the spill enters standing water, or is seeping into a water source, use absorbent padding to soak up the fuel. The padding can be used to mop up spills directly and, when rolled up, as a boom on the water surface to contain the spill.

Notify the Yukon Oil spill Hotline at 1 867 667 7244, for spills in excess of 200 liters.

IN CASE OF FIRE

If you discover a fire:

- Leave the fire area IMMEDIATELY
- Close doors behind you; leave the building by nearest safe exit.
- Sound the fire alarm using 3 sharp blasts from the air horn located ??????????
- **Notify the acting District Manager**
- At your discretion, attempt to control the fire with available fire equipment and assist fire brigade.

DO NOT GO BACK INTO THE BUILDING FOR ANY REASON.

WHEN YOU HEAR THE ALARM:

- Leave the building immediately by the nearest safe exit.
- Close the doors behind you when you when exiting building.
- REMAIN CALM.
- Go to the designated assembly area.
- When you have reached the outside, move away from the building.
- Wait for further instructions from the acting Project Manager – if you are part of the fire brigade, at your discretion, attempt to control the fire with available fire equipment.
- DO NOT GO BACK INTO THE BUILDING FOR ANY REASON.

CONTACT THE ACTING DISTRICT MANAGER ON CHANNEL 1

AGENCY PHONE NUMBERS

AGENCY	CONTACT	PHONE NUMBER
Mines and Minerals—Mineral Rights and Mines Land Use	Joanne Oberg, Chief MLU Judy St.Amand, Reg Mining Lands Officer	867-667-3190 867-667-5150 (Fax)
Mining Lands Officer-Mayo	Neil Slavin	867-996-2568
Yukon Worker's Compensation Board		867-667-5645
Occupational Health and Safety		867-667-5450

SAFETY

Alexco Resource Corp.

GUIDING PRINCIPLES FOR WORKER SAFETY

We the members of the mining industry, have a responsibility to protect all workers engaged in its activities from personal injury and health hazards. To meet our responsibility we will operate under the following guiding principles:

RESPONSIBILITY

The operating company, when acting as prime contractor, is responsible for coordination and general supervision of all activities at the work site, including activities carried out by contractors, sub-contractors, service companies and suppliers. While all parties have a responsibility to promote worker safety, the operating company recognizes its leadership role in promoting worker health and safety on the basis that it has the greatest power to influence work site situations. It is the responsibility of workers and employers to refuse to perform unsafe work practices.

PRIORITY

Activities will be conducted on the basis that safety of all personnel is of vital importance, whether those personnel are employed by an operating company, a contractor, a sub-contractor, a service company or a supplier.

RECOGNITION

The process of selecting contractors, sub-contractors, service companies and suppliers, and the administration of contracts, will include recognition and support of good safety performance. Support and recognition based on good safety performance will also be provided by all employers to their employees.

IMPROVEMENT

The operating company, in cooperation with service companies within the industry, will promote methods and practices that have potential for improving safety performance.

ASSIGNMENT OF RESPONSIBILITY AND ACCOUNTABILITY FOR SAFETY

MANAGER'S RESPONSIBILITIES

Managers protect employees and the company by:

1. Providing information, instructions and assistance to all supervisory staff in order to protect the health and safety of all employees, contractors and subcontractors.

2. Encouraging employee involvement in safety by demonstrating management's commitment to safety.
3. Providing all supervisory staff with an understanding of the accident prevention program and ensuring compliance with Yukon Occupational Health and Safety legislation.
4. Providing all supervisory staff with proper, well-maintained tools and equipment, as well as any other special personal protective devices that may be required.
5. Ensuring that all workers are adequately qualified to perform their work.
6. Providing ongoing safety education programs and ensuring that training needs are identified and met.
7. Monitoring departments and projects and hold them accountable for their individual safety performance.
8. Ensuring that accidents and incidents are reported and investigated and corrective actions are taken.
9. Setting a good example.

SUPERVISOR'S RESPONSIBILITIES:

Supervisors maintain a safe worksite by ensuring:

1. Knowledge and appliance of the company's safety policy and relevant Yukon Occupational Health and Safety legislation.
2. That all employees are educated to work in a safe manner and that they use all protective devices and procedures required by this company and by legislation to protect their health and safety.
3. That only safe work practices are used.
4. That unsafe conditions and behavior are corrected immediately.
5. That all employees know what is expected of them.
6. That training needs are identified and met.
7. To arrange for medical treatment when required, in the case of injury or illness, including transportation to a doctor or hospital when necessary.
8. To report all accidents immediately, to investigate all accidents fully and to advise management on how to prevent similar accidents in the future.
9. That all equipment is appropriate and well maintained.
10. To carry out regular inspections to identify hazards and remove them where possible.
11. That all employees know and are prepared to deal with the hazards of their work and any specific hazards on the worksite.
12. That personal protective equipment is available, properly used, stored, maintained and replaced when necessary.
13. That a good example is set.

WORKER'S RESPONSIBILITIES:

Workers protect themselves, fellow workers, the public, and the environment by:

1. Reading and becoming thoroughly familiar with the company's safety policy, safe work practices, procedures and rules.

2. Actively participating in safety program development and maintenance.
3. Following safety standards and safe work procedures set out by the employer, employees and regulatory requirements.
4. Refusing to perform work when unsafe conditions exist (as defined in Yukon Legislation) and to refuse to perform work they are not competent to perform.
5. Reporting all potential hazards to supervisors.
6. Immediately report all accidents and injuries to their supervisor(s).
7. Participating in all training offered by the employer, either on or off the worksite (e.g. First Aid, WHMIS training).
8. Using the required personal protective and safety equipment.
9. Checking tools and equipment, including personal protective and safety equipment for hazards before using them.
10. Knowing the location, method of contact for first aid and emergency equipment.
11. Setting a good example.

CONTRACTORS, SUBCONTRACTORS, AND CONSULTANTS' RESPONSIBILITIES

Contractors, subcontractors and consultants' responsibilities are to:

1. Ensure that their programs and operations comply with contractual and regulatory requirements.
2. Insist on safe performance throughout their operations by ensuring contractors and employees are competent to do their work properly.
3. ensure subcontractors and employees meet safety expectations.
4. Provide the time and resources required to enable subcontractors and employees to do their work properly.
5. Remedy any workplace conditions that are hazardous to the health or safety of the employer's workers.
6. Ensure that the workers are aware of known or reasonably foreseeable health and safety hazards to which they are likely to be exposed and are aware of their rights and duties under regulations.
7. Provide and maintain protective equipment in good condition, safety equipment, devices, and clothing as required and ensure that these are used by their employees.
8. Provide their workers the information, instruction, training, and supervision necessary to ensure the health and safety of other workers in the workplace.
9. Consult and cooperate with the joint Health and Safety Committee and worker health and safety representatives for workplaces of the employer.

VISITOR'S RESPONSIBILITIES:

1. Check in at the Administration Building immediately upon arrival on site.
2. Must follow the instructions of the site supervisor or personal escort.
3. Wear personal protective equipment when required.
4. Never walk about the worksite unescorted.

JOINT OCCUPATIONAL HEALTH AND SAFETY COMMITTEE

PURPOSE:

The joint worksite health and safety committee unites workers and management in discussions of worksite procedures and safety. The committee helps foster a positive attitude toward safety among all members of the worksite.

COMMITTEE RESPONSIBILITIES

The Committee is responsibilities are to:

- Become familiar with provincial regulations and guidelines for worksite health and safety committees
- Hold meetings once per month
- Review reports of unsafe acts or conditions and recommend corrective measures
- Identify unhealthy or unsafe conditions at the worksite
- Review reports from investigations of first aid incidents, accidents and near misses
- Look into safety concerns pointed out by any employee on the work/camp site
- Review written safe operating procedures and codes of practice before they are distributed
- Review safety communications before they are distributed
- Recommend to the employer new safety practices and changes to safety practices and general policy
- Identify and recommend recipients for safety rewards
- To promote safety awareness and activities within the work force

RECORDS OF MEETINGS

Minutes of the committee meetings will be kept with a copy posted on the message board located in the cookhouse. The original copy held on file with the safety officer and a copy to the mine manager. Copies will also be distributed to all committee members prior to the next meeting for follow up for discussion on follow up on recommendations.

MEMBERSHIP

The committee will be comprised of equal numbers of representatives from employees and management. A representative from each section will be on the board. These sections include but are not limited to: drilling, maintenance, geology, core cutting, housekeeping, cookhouse, first aid and safety.

EXECUTIVE

The committee will have two co-chairpersons, one employee representative and one management representative as selected by the committee. The co-chairs will alternate chairing the monthly meetings. A secretary will also be appointed to record minutes of each meeting.

INSPECTIONS

Through regular formal and informal inspections work site conditions and work procedures are monitored. Inspections ensure that company safety standards and regulatory requirements are being followed, as well as meeting inspection requirements recommended by equipment manufacturers. Inspections also enable the identification of hazards before they become a problem by revealing where improvements to equipment, work procedures worker training, and worksite conditions are needed.

Both committee members, and employees are expected to participate in worksite inspections with the safety officer. It is recognized that all employees have extensive experience in their respective fields.

GOVERNMENT INSPECTIONS

Government inspectors will from time to time inspect the mine site. The inspectors may assess records, plans, policies, and equipment or work procedures. They may interview anyone on the worksite and they the right to remove any item they need to inspect further. Anyone on the site at the time of the inspection must cooperate with government inspections.

GENERAL SAFETY RULES

MANDATORY REQUIREMENTS:

1. Consuming or being in possession of alcohol or illegal drugs on company premises, or any company job site is prohibited. Company premises are defined as the bunkhouses situated at Flat Creek, the Elsa Houses, and any satellite sites where work is being conducted such as drilling areas water treatment sites, and mining areas. All vehicles and equipment are considered company premises.
2. Theft, vandalism, unauthorized alteration or any other abuse or misuse of company property is prohibited.
3. All unsafe acts and conditions, including “near miss” incidents, are to be reported to the appropriate supervisor immediately.
4. All incidents that result in damage or injury are to be reported to a supervisor immediately.
5. First Aid treatment is to be obtained promptly for any injury.
6. Hard hats, safety boots, visible vests, hearing protection and safety glasses are to be worn in the designated and posted areas at all times.
7. All work shall be carried out in accordance with appropriate safe work practices and the supervisor’s direction.

8. Only those tools that are in good working order with all guards and safety devices in place shall be used.
9. Every worker shall keep his/her work area neat, clean and orderly.
10. Radio communication is for work purposes only not to be used for “chatting” music or any other non-work related usage.
11. All persons will observe all Territorial and Federal laws specifically those governing traffic rules, speed limits, vehicle seat belts, crash helmets while riding ATVs, snowmobiles, and motorcycles.

CAMP/HOUSE RULES:

1. Keep noise to minimum in bunkhouse/house areas. Respect sleeping night shift workers and they in turn will be respectful of your sleeping schedule.
2. No smoking in enclosed areas such as bunkhouse or other houses, kitchen and other work buildings.
3. Remove or clean muddy boots before entering the bunk house, kitchen, or houses.
4. No food in any bunkhouse room.
5. Be respectful and utilize recycling bins for all pop and plastic containers.
6. No personal firearms.

PERSONAL PROTECTIVE EQUIPMENT

PURPOSE

The purpose of this policy is to minimize injuries to employees, contractors and visitors by the use of Personal Protective Equipment (PPE). Your safety is this company’s priority however; each individual is ultimately responsible for their own safety.

Basic personal safety equipment including hard hats, safety glasses, face shields, gloves and visible vests will be provided by the company and must be used in the designated areas outlined in the policy. Equipment that becomes inoperable or damaged due to normal wear or as a result of an accident or incident must be replaced.

HARDHATS

- Hardhats must be worn in all areas where there is a potential hazard to the head from falling, flying, or suspended objects specifically at drill rigs or around operating heavy equipment.
- Hardhats must be worn by all employees, contractors or visitors who enter designated hardhat areas.

ALWAYS:

- **Replace headgear that is pitted, holed, cracked or brittle.**
- **Replace headgear that has been subjected to a blow even though damage can not be seen.**
- **Remove from service any headgear and components according to manufacturer's instructions.**

NEVER:

- **Drill, remove peaks, and alter the shell or suspension in any way.**
- **Use solvents, or paints on the shells (makes them break down).**
- **Use any liner that contains metal or conductive material.**
- **Carry anything in the hardhat while wearing the hardhat.**
- **Wear your hardhat backwards; it may alter the protection of your head.**

EYE PROTECTION

Safety Glasses

All employees, contractors and visitors must wear appropriate eye protection devices when doing any work, which might cause foreign particles to enter the eyes (e.g. grinding, welding, cutting, using a chainsaw etc.). Safety glasses must be worn in all designated and appropriate areas.

Safety Goggles

Safety goggles, by themselves, do not provide adequate protection against chemicals splashes and must be worn along with a face shield in areas where a chemical splash might occur. They should also be worn when hooking up helicopter sling loads.

Face Shields

Face shields are designed to protect the eyes and face from heavy impact flying particles and when used with goggles from chemical splashes.

HEARING PROTECTION

Employees subjected to excessive noise levels shall be provided with and shall wear hearing protection devices in accordance with the standards set out by the Yukon Occupational Health and Safety Regulations. This includes any exposure over 85 decibels for an 8-hour period (or a shorter period if over 90 decibels). Normal conversation occurs at a noise level of 60 decibels, an

electric drill may produce a noise level of 70 decibels, a table saw 100 decibels and the rear seat of a helicopter 130 decibels.

Employees who are exposed to noise levels in excess of the allowable limits for noise must receive an annual hearing test, which is provided by this company.

RESPIRATORY PROTECTION

Employees exposed to high concentrations of dust, vapours, gases, noxious or toxic fumes, paint fumes, or an oxygen deficient atmosphere must wear properly fitted respiratory protection devices appropriate to the material to which they may be exposed.

The use of a rock saw in a closed space exposes personnel in that space to fine silica dust, which is very damaging to the lungs. Rock saws must be operated only with a water-misting or lubricating device, the room should be vented with an exhaust fan, and the operator must wear a mask or respirator.

Persons cutting core may be required to have a chest x-ray as required by Yukon Occupational Health and Safety Regulations for a dust exposure occupation..

A worker required to wear a respirator needs an effective seal and requires the employee to be clean shaven to ensure the respirator properly seals the face. Fit checks must be routinely carried out to ensure proper performance for the respirator being used. Records of the tests are maintained.

HAND PROTECTION

Employees doing heavy lifting or handling materials likely to cut, puncture, abrade, burn or irritate hands or arms must wear properly fitted gloves or other devices designed to protect hands and arms from such injury. Do not wear rings or wristwatches when handling materials or working near machinery. Also be aware that gold or silver rings may cause contamination of drill core samples if worn while handling core and should not be worn.

Hydrofluoric, corrosive materials or other acids should be handled using acid resistant, latex or other impermeable gloves.

Cold weather working and snowmobile driving require insulated mitts specially designed for the job ie:

- insulated gauntlets for snowmobiling
- water and fuel proof insulated gloves for handling fuel and salt

FOOT PROTECTION

Footwear must conform to the CSA standard for safety footwear and must bear the appropriate CSA emblem. Running shoes or non-CSA approved footwear will not be used or allowed on the work sites.

Occupational Health and Safety Legislation requires that all footwear meet CSA Standards and ANSI Standards for footwear protection.

All footwear must have toe protection, metatarsal protection, puncture resistant soles, dielectric protection and have non slip soles. When walking in rugged terrain wear boots with ankle support this reduces the risk of ankle sprains or strains.

Wear warm insulated boots in cold weather to prevent frostbite. (Avoid standing on metal in cold weather). Wear waterproof boots when working in wet conditions.

PROTECTIVE CLOTHING

Loose fitting, baggy clothing is a hazard if working around machinery where the items could get caught and tangled. Many injuries and even death have occurred. Do not wear this type of clothing if working with any machinery such as drills and saws.

Summer work wear must be appropriate for work purposes. Long sleeve clothing should be worn for protection from sunburns, scratches, insects and excessive dirt. Protection is required while handling and working with core.

For protection from cold temperatures, employees must wear suitable cold weather gear. Layering clothing that can be removed or added as required is beneficial.

HAZARD ASSESSMENT AND CONTROL

Successful recognition of potential safety hazards and the ability to eliminate these hazards plays a major role in Alexco's Safety Program. This requires the participation of everyone involved including workers, supervisors and managers who must take responsibility to eliminate potential hazards within their own work place. Hazard control will be accomplished by regular inspections of worksite conditions, equipment, employee actions and job procedures conducted by supervisors, safety coordinator and employees. These inspections are to be documented and reported to Alexco management on the appropriate report form. Corrective action taken will also be reported and documented.

HAZARD IDENTIFICATION

We endeavor to eliminate all site-specific hazards prior to the commencement of work. The Hazard Identification Checklist is completed during the initial inspection. A sample of the checklist is attached. Since worksite conditions are constantly changing as projects progress, the

Hazard Identification Checklist must be updated accordingly and any changes are communicated to workers immediately. Workers are required to identify any potentially hazardous situations to their Supervisor or Safety Coordinator. The Supervisor and/or Safety Coordinator is responsible for documenting the hazards as well as any corrective action required to remedy it. Any new hazards may be communicated at the tailgate meetings.

EQUIPMENT MAINTENANCE PROGRAM

Alexco operates a fleet of equipment, hand and electrical tools. Each piece of equipment has an Equipment Log Book. When each unit has been serviced or any work performed there will be an entry place in the logbook. All equipment is checked and maintained prior to moving to any work site. All equipment is subject to regularly scheduled servicing as determined by the manufacturer. It is the responsibility of the Supervisor or equipment operator to ensure that regular servicing and preventative maintenance has been performed and recorded in the equipment logbook. Necessary maintenance on rented equipment must also be completed. The operator of each piece of equipment is responsible for bringing any mechanical deficiencies to the attention of his supervisor and/or mechanic so that the required maintenance can be performed. If you are unsure of the required maintenance schedule of a piece of equipment ask your supervisor or the mechanic to find out the set schedule.

PURCHASING/ENGINEERING CONTROLS

In order to eliminate any jobsite hazard that may develop due to substandard materials, those responsible for purchasing ensures that adequate equipment and materials are purchased.

All materials purchased must be properly tagged and identified with appropriate WHMIS symbols. Should material be distributed without proper WHMIS tags inform your supervisor or safety coordinator.

INSPECTIONS

The safety coordinator along with representation from area supervisor and workers will conduct regular inspections of all worksites. These inspections will focus on work site conditions, tools, equipment and use of proper safe work procedures. All job sites will be inspected for safety deficiencies. An inspection is the result of a site tour by the safety coordinator and/or site supervisor. Should deficiencies be found the personnel performing the tour will address the safety issue directly and ensure the safety issue is addressed. (i.e.: the site supervisor walks through the job site and notices that the workers are not wearing their safety glasses in the required work areas.) The supervisor will inform each worker of their responsibilities and if required hold an impromptu tailgate safety meeting to ensure all personnel are aware of the required regulations.

RECOGNITION OF SYMPTOMS OF ALCOHOL AND DRUG USE

Early Signs of Difficulty:

There are many signs and symptoms of alcohol abuse. There are differences between alcohol/drug use, alcohol/drug abuse and alcohol/drug dependence. However, **any** use while on the job can be very dangerous both to you the employee and your fellow employees.

As an employer there are many warning signs that indicate that an employee is using alcohol or drugs.

1. Difficulty in Concentration

Jobs take more time

2. Confusion

Difficulty in recalling instructions etc.

Difficulty in recalling mistakes

3. Erratic Work Patterns

Increasing alternate periods of high and low productivity

4. Reporting to Work

Coming to/returning to work in an obvious unacceptable condition

5. Generally Lowered Job Efficiency

Missed deadlines

Increased excuses increasingly poor work performance

Mistakes

Making bad decisions

6. Poor employee relations on the Job

Over reaction to real or imagined criticism

Wide swings in mood

Borrowing money from co-workers

Unreasonable resentments (blaming others)

7. Absenteeism

Increasing instances of unauthorized leave/ excessive sick leave

Frequent last day of work and first day of work absence

Excessive tardiness

Leaving work early

Increasingly improbable excuses for absences

Higher absenteeism than other employees for colds, flues etc.

Frequent unscheduled short term absences (with or without explanation)

8. “On the job” Absenteeism

Long coffee breaks
Sleeping during work hours
Physical illness on the job

9. High Accident Rate

Severe injury or death

SAFETY INSPECTIONS

Safety Inspections are used to identify and control hazards in the workplace before accidents/incidents occur. During an inspection, both activities and conditions in the workplace are carefully examined. Situations that have the potential to cause injury or damage (sometimes referred to as unsafe acts and unsafe conditions) are identified, and corrective action is initiated. Good supervisors should encourage workers to bring forward their observations of unsafe acts and unsafe conditions on an ongoing basis.

HOUSEKEEPING

General housekeeping in the workplace is considered a high priority during inspections. Good housekeeping, demonstrated by orderliness and cleanliness of the job site, usually suggests a safe, well-managed job and pride in the work is being done. Poor housekeeping can ultimately lead to injuries and damage.

ONGOING (INFORMAL) INSPECTIONS

Ongoing inspections will be conducted by supervisory personnel who do most of their work on the job site, watching for unsafe acts and unsafe conditions. In many cases discussing the unsafe act with workers and/or issuing instructions to correct the unsafe condition can correct the problem. Situations that require additional corrective action need to be recorded by the supervisor for follow-up.

PLANNED (FORMAL) INSPECTIONS

These planned inspections are conducted by the supervisor, safety coordinator and workers and/or by an inspection team (JHSC members). These inspections are conducted on a regularly scheduled basis.

SAFE WORK PRACTICES

To ensure an accident free environment it is essential that all employees know and recognize the various aspects of his/her job that are critical to safe job performance. Accordingly, Safe Work Practices have been and will continue to be developed and maintained as part of our

Occupational Health and Safety Program. Please note that this policy is in conjunction with the Yukon Occupational Health and Safety Legislation which all employees should be familiar with. These procedures will be reviewed and amended regularly and as required by changes in equipment, tools or work processes.

GENERAL SAFE WORK PRACTICES

General Safe Work Practices are developed and included in this manual as part of our Safety Program. These practices include, but are not limited to the following:

1. Personnel Protective Equipment.
2. Mobile equipment Operation.
3. Tools and Power Equipment.
4. Hand tools
5. Housekeeping.
6. Hazardous Materials
7. Ladder Safety.
8. Lock out/Tag out.

MOBILE EQUIPMENT OPERATION

Employees must not operate any mobile equipment unless they:

- Possess the necessary valid driver's license, qualified training and/or certificates,
- Have received adequate instruction and demonstrated to a supervisor or instructor that they are able to operate the equipment.
- Are familiar with operating instructions pertaining to the equipment.
- Have been authorized to operate the equipment, and;
- Are familiar with WCB regulations regarding the safe operation of mobile equipment.

Operators of mobile equipment are directly responsible for the safe operation of the equipment. They shall maintain full control of the equipment at all times and comply with all laws and regulations regarding the operation of the equipment. Operations must comply with recommended gross vehicle weight and ensure that vehicle is not overloaded.

Where vision is obstructed, mobile equipment operators must not move the equipment until suitable precautions have been taken to protect themselves and any other person and the property from possible injury or damage.

Operators must examine their equipment daily before use, utilizing the vehicle inspection check sheet. Thereafter as required and report all defects, deficiencies, or unsafe conditions to a supervisor or other authorized person.

Mobile equipment **MUST NOT BE** refueled with gasoline, propane, or other vaporizing fuels while:

- the engine is running
- anyone is smoking in or about the vehicle or
- there is a known source of ignition present in the immediate area.

No employee shall remain in the cab of any vehicle while loads are elevated over the cab, unless overhead guards are installed to prevent injury to the employee.

When a hazard is created by a swinging load, moving cab, or counterweight or any other moving part of mobile equipment no employee shall enter into or remain within range of the hazard, and the operator must not move the equipment while employees are exposed to the hazard.

When an employee is required to work beneath elevated parts of mobile equipment, the parts shall be blocked, or otherwise secured to prevent possible injury to the employee.

When materials and equipment are being transported they must be loaded and secured to prevent any movement of the load, which could create a hazard to employees.

Effective means of load restraint must be provided to protect the crew of a vehicle transporting a load, which might otherwise shift.

Employees should not stand or sit on the side or the tailgate of any moving equipment.

Wearing of a seat belt in all vehicles and equipment where they are provided is mandatory whenever the vehicle or equipment is in motion.

The operator of mobile equipment is the only employee allowed to ride the equipment, unless provisions such as seatbelts and other facilities have been provided and used by other employees.

Tag lines are recommended on all elevated loads being moved by mobile cranes.

TOOLS AND POWER EQUIPMENT

General

No employee shall use any power tool, or similar type equipment unless he/she is familiar with the use and operation of the equipment or has received specific instruction and initially is supervised in its use and operation.

Instruction and supervision in the use, handling, and maintenance of power tool or similar tools will be given to employees who require it.

Only qualified or specially trained employees may alter, repair, or otherwise tamper with electrical equipment or electrical tools.

No employee shall commence work on any electrical equipment until the equipment has been shut off and locked out as per the Company's Lock Out/Tag Out Policy.

HAND TOOLS

1. Hand tools should be kept and maintained in safe working condition.
2. Do not use a defective tool. Tools with mushroom heads, split and defective handles or other defects must not be used. Advise supervisor so defective tools can be replaced.
3. Inspect the tool before use and report any defects to your supervisor.
4. Sharp edged, or pointed tools should not be carried in pockets without ample protection.
5. Hand tools should be used only for the purpose for which they were designed. Pliers are not wrenches; pliers and wrenches are not hammers. Shovels are not for prying.
6. Extensions shall not be used on wrench handles to increase leverage unless the wrench is specifically designated for use with such extensions.
7. Always keep guards in place while using the tools.
8. When power tools are left unattended, turn off the source of power.
9. Grinding on the side of a grinding wheel is prohibited, unless the wheel is designed and set for such work.
10. Approved portable electric tools that required a ground wire will be properly maintained and the ground wire will be left connected.
11. Place tool in safe appropriate container/place when not in use.
12. Do not point a tool at anyone if it ejects pins, nails etc.

PORABLE ELECTRIC TOOLS

The use of eye protection is mandatory for all employees using or assisting in the use of power tools of any type.

Small parts must be clamped in a vise or to a large piece of material before attempting to drill them.

Before use the power tool and the power cord must be checked for breaks or tears. Defective tools must be flagged and placed in a designated repair/out of service area as per the Lockout Policy.

All tools must be designed for industrial or commercial use.

All power tools must be effectively grounded by using three wire cords and three pronged polarized plugs inserted in grounded polarized receptacles or provided with double insulation and so marked.

Chuck keys not be taped to an electric cord, as electrocution might occur if insulation has worn through.

MACHINE GUARDS

Employees, who are responsible for placing equipment into service are also responsible to ensure that equipment guards are in place. If due to deterioration, the original guard provided on a piece of equipment cannot be used employees should use a temporary method, offering equal or better protection.

No employee shall impair, remove or render ineffective any safeguards provided for the protection of themselves or other employees.

HOUSEKEEPING – GENERAL

Good Housekeeping involves everyone in the workplace. A clean workspace reduces the risk of accidents and injuries.

All employees are responsible for the maintenance of good housekeeping in all work areas. In order to maintain good housekeeping practices, the following rules have been established:

1. Employees must keep their work area clean and tidy at all times. A daily clean up is mandatory and frequent clean up during the day is generally necessary.
2. Work areas and Storage areas should be arranged to allow for the safe movement of employees, equipment and materials.
3. Floors must be kept clear of oil, grease and other materials, which create slipping hazards. Where possible, a non-slip material should be applied over the slip area.
4. Garbage and waste, including food waste must be deposited in receptacles provided. Receptacles must be emptied at regular intervals in order to prevent hazardous accumulation of garbage and waste.
5. Recycling receptacles will be available and utilized for all recycling materials such as cans and plastics.
6. Oily rags and used oil and grease must be deposited in approved receptacles only.
7. Hoses, cables, ropes, wires etc. should be recoiled and returned to appropriate storage place after being used.

8. Replace all grates and cover openings as soon as work is completed. If the work is not completed the openings should be barricaded.
9. Do not store heavy articles on high shelves. Only use the bottom shelves for storage of heavy items.

HAZARDOUS SUBSTANCES

All employees working with hazardous substances must have the Workplace Hazardous Materials System (WHMIS) training and be provided with the current information regarding the identity, nature and potential hazards of the hazardous substances. An employee must inform his/her supervisor if they require that training.

Hazardous substances shall be stored so the safety and health of employees is protected, using the information available on a MSDS or from the supplier or another reliable source. All materials must be clearly labeled to provide identification, and information regarding safe handling of the hazardous substance.

Substances that may react with other substances to cause a fire or explosion, or leak any toxic gas or create any other hazardous condition must be stored separately from other such substances.

All hazardous substances must be stored on appropriate spill trays at all work sites.

All employees must wear the appropriate safety gear at all times when handling such materials.

COMPRESSED GAS (AEROSOL CANS)

Aerosol cans are dangerous at temperatures over 120 degrees (48C). Store the aerosol cans in a well-ventilated area and away from any other readily flammable substances. Do not store items where other heavy materials can fall on the aerosol cans.

Damage to an aerosol can may increase the pressure enough to rupture the can resulting in metal fragments being sprayed in all directions. Puncturing the can or tampering with the nozzle or leaving the can where it can rust may also result in the can rupturing.

Empty aerosol cans must be disposed of in the proper waste receptacle.

LADDER SAFETY

GENERAL SAFETY PRECAUTIONS

Ladders must conform to approved specifications must meet the requirements of ANSI Standard Ladder Safety requirements or other similar standard acceptable to the director.

The following precautions apply to the use of all step, extension and single ladders:

1. Must be removed from service or repaired immediately when it has loose, broken, or missing rungs, split side rails or other defects that may be hazardous to a worker.
2. Must be maintained in a safe condition.
3. No employee shall work on the top two rungs of a single or extension ladder, or the top two steps of a stepladder.
4. Metal ladders, or wire reinforced wooden ladders, must not be used close to energized power lines or other electrical equipment.
5. Ladders must not be placed on boxes barrels or any unstable base, to obtain more height.
6. Ladders must not be placed in front of doors or windows, which open towards the ladder, unless precautions have been taken to ensure that the door or window cannot come into contact with the ladder.
7. Always face the ladder when climbing up or down.
8. Never go up or down a ladder without the free use of both hands. If material must be handled, hoist it up or down by a rope.
9. Must be clean and free of grease, oil or any slippery substance.

KEY POINTS IN LADDER SAFETY

1. Ladders must be securely placed before use. On single and/or extension ladders, the foot of the ladder shall be set 25% of the working height away from the supporting object. If the ladder must be inclined less than this, the ladder must be secured at the top and bottom.
2. Single and extension ladders must be equipped with non-slip safety feet, or be held, tied off, or otherwise secured to prevent the ladder from kicking out or slipping.
3. If the ladder's length, particular an extension ladder is sufficient to cause it to spring when weight is applied to it, it must be braced in such a way to minimize or eliminate the spring action.
4. The upper half of an extension ladder must not be used as a single ladder.
5. No more than one person is to use, or climb a ladder at one time.
6. Ladders should be stored out of the way in proper areas after use.

LOCKOUT/TAGOUT AND BLOCKING PROCEDURES

PURPOSE

Failure to lock out or tag out defective machinery before working on it can cause serious injury or death. Lock out or tag out means that any energy source whether electrical, hydraulic, mechanical, compressed air, gravitational or any other source that might cause unexpected movement must be disengaged or blocked and sources must be de-energized and locked or positively sealed in the OFF position.

It should be noted that even locked out machines might not be safe if there are parts of the machine that are not blocked to prevent inadvertent movement. For example to repair, clean, or change the core saw blade by merely unplugging the power source will not secure the blade from inadvertent movement which if not blocked could cause injury to the operators arm or hands.

In order to ensure safety, the operation and maintenance of equipment, machinery and tools the following procedures must be adhered to:

PROCEDURE

1. Notify all affected employees about the planned lockout of equipment.
2. Stop all drives and motors on the machine by means of the stop button, on-off switch or key.
3. Lockout the main power to the equipment to be worked on by placing a lock and tag on the power or disconnect switch while it is in the “OFF” position.
4. Employee working on locked out equipment must place their lockout/Tagout device on the power source. Identification with the lockout should include the date, the equipment being serviced, the authorized employee’s name and the supervisor’s name.
5. Test the equipment to make sure it will not start, to ensure that all correct energy sources were successfully isolated. Ensure no inadvertent movement can occur. If that is a possibility block that possibility.
6. Upon completion the person who put on the lock is responsible for removing the lock and is responsible for the start up of the equipment.
7. Employees must be notified that safe operation of the equipment has been restored.

GROUP LOCKOUT

When three or more employees are working on machinery or equipment with more than four energy sources the following procedures must be adhered to:

1. Two employees are appointed and responsible for independently locking out the energy isolating devices.
2. They are responsible for securing the keys or other approved lock out devices.
3. They must complete, sign and post a checklist outlining the machinery or equipment components that have been locked out.
4. They are responsible for removing their locks and devices upon completion of the work and notifying employees.

Lockout procedures are **not** required when the equipment is under the exclusive and immediate control of the worker at all times while working on the machinery or equipment. When working on a tool or machine that receives power through a readily disconnected supply such as an electrical cord and the power supply and it's connection point is under the exclusive and immediate control of the worker.

Lockout procedures are in compliance with the Yukon Occupational Health and Safety Act, which all employees should be familiar with.

Guidelines to promote safety:

- Inspect equipment and machinery by a competent person to determine that they can be effectively isolated.
- Consider the need to lock out or bleed compressed air, and block moving parts from gravity, hydraulic pressure, or stored electrical or mechanical energy.
- After equipment lock out, the key must be retained by the person to whom the padlock has been assigned.
- Where more than one person or trade group is scheduled to work on the machine or system, a lock bar is used. This will allow for the use of more than one padlock.
- The padlock placed by the operator or person responsible for the machine or system shall remain in place until all other padlocks have been removed and notification is received that all work has been completed.

CHAIN SAWS

Safe Use:

- Wear your personal protective equipment.
- Operate, adjust, and maintain saws according to the CSA standards and the manufacturers directions.
- Operate saws in well-ventilated areas only.

Fueling:

- Follow manufacturer's instructions for oil/gas mixture.
- Mix fuel in well-ventilated areas.
- Do not smoke or allow ignition while refueling.

- Do not refuel a running or hot saw.
- Store fuel in an approved safety container. Use funnel or spout for pouring. Wipe off any spills.

Always:

- inspect the saw before starting. Do not use a saw with damaged, loose, or missing parts.
- Ensure that the guide bar is tight and chain fits snugly without binding.
- Know how to use the control before starting a chain saw.
- Ensure the chain is clear of obstructions before starting.
- Hold the saw firmly on the ground. Point chain away from your body or nearby obstructions.
- Warm up the saw prior to cutting. The saw should idle without the chain turning. If the chain continues to turn after the throttle switch is released, stop the saw. Then adjust the idle as shown in the owner's manual.

Never:

- Never drop start the saw. This leaves only one hand to control a running saw and could result in leg injuries.
- Never make adjustments to chain to guide bar when motor is running.

CUTTING

Always:

- Plan each job before you start. Arrange to have help if you need it.
- Know the location of the persons working with you at all times.
- Use the correct saw. The weight, power and bar length should all be suitable for the job.
- Operate chain saw in a firm two-handed grip with fingers and thumb surrounding the handles.
- Keep both feet firmly positioned when operating the saw.
- Maintain full power throughout each cut.
- Keep your saw clean, free of sawdust, dirt and oil.

Never:

- Never leave a saw running unattended.
- Never carry a saw while it is running.
- Never cut alone.

CHAINSAW KICKBACK

Kickback is the term to describe "**unexpected upward motion of the guide bar**". Kickback occurs when the end portion of the nose of the bar strikes an object and the chain momentarily snags.

The most common and probably most violent kickback occurs when the chain and cutters guide bar make contact, either accidentally or intentionally, in the "kickback zone".

REDUCING THE RISK OF KICKBACK

- Avoid contact with the kickback zone. This prevents the chain from bunching up and climbing out of the track.
- Watch the guide bar nose; do not let it touch logs, branches or the ground when saw is running.
- Do not cut in kickback zone.
- Cut only one piece at a time.
- Run the saw at full power when cutting.
- Keep the chain sharpened to specifications.
- Match chain and bar for exact pitch and gauge.
- Set depth gauges to manufacturer's settings.
- Maintain correct chain tension.
- Hold the saw securely with both hands.
- Know where the bar tip is at all times.
- Do not cut close up to the saw. This exposes the guide and my result in contact.
- Make sure the chain brake functions and adequately stops the chain. The stopping power of the chain break can be reduced by wear, or by oil, dirt or sawdust in the brake parts.
- Install safety tip that covers the nose of the guide bar on the saw to prevent contact with the kickback zone. The tip must be removed for making bore cuts (pocket cuts) or for cutting wood thicker than the length of the guide bar.

ACCIDENT INVESTIGATION POLICY

Occupational Health and Safety Regulations

Report and Investigations Section 30 (1)

In this section, are the following definitions:

“Serious Accident”

- (a) an uncontrolled explosion
- (b) failure of a safety device on a hoist, hoist mechanism, or hoist rope
- (c) collapse or upset of a crane
- (d) collapse or failure of load-bearing component of a building or structure regardless of whether the building or structure is complete or under construction
- (e) collapse or failure of a temporary support structure,
- (f) an inrush of water in an underground working
- (g) fire or explosion in an underground working
- (h) collapse or cave-in, of a trench, excavation wall, underground working or stockpile
- (i) accidental release of a controlled product
- (j) brake failure on mobile equipment that causes a runaway,
- (k) any accident that likely would have caused serious injury but for safety precautions, rescue measures, or chance

“Serious Injury”

- (a) an injury that results in death
- (b) fracture of a major bone, including the skull, the spine, the pelvis, or the thighbone,
- (c) an amputation other than of a finger or toe,
- (d) loss of sight of an eye,
- (e) internal bleeding,
- (f) third degree burns,
- (g) dysfunction that results from concussion, electrical contact, lack of oxygen, or poisoning,
- (h) an injury that results in paralysis (permanent loss of function)

ACCIDENT AND NEAR MISS PROTOCOL AND INVESTIGATION

WORKERS COMPENSATION BOARD REPORTING

All accident/incidents resulting in injury must be reported to immediate supervisor. If an injury is severe enough to require medical attention this report must be forwarded to Workers Compensation Board within three days of the accident as per legislation.

ACCIDENT/INCIDENTS

Any type of loss that could include: any and all injuries equipment damage, work interruptions, spills, unexpected releases, theft, damage, fires, explosions and natural disaster.

NEAR MISS

Near Miss or “close calls” are very common on worksites. They don’t result in injury but may cause property damage. If an employee had been in a slightly different place or position certain injury could have occurred. Often described as “sheer luck” that nothing happened. Reporting, investigating and discussing the matter the employees will likely have helpful suggestions to prevent a similar incident from reoccurring.

ACCIDENT/INCIDENT RESPONSE PROCEDURE

1. Stop. Call your supervisor or safety officer and if needed first aid.
2. Supervisor or safety officer to notify mine manager.
3. Ensure that equipment involved is not moved and incident/accident scene is not disturbed.
4. In case of emergency allow personnel trained in first aid to take care of casualty victim as soon as possible until outside medical aid arrives.
5. Ensure that the casualty victim is not moved unless a greater and imminent danger will arise by leaving them in the original position and location.
6. If the site is remote and hard to locate, have someone go out to the roadway or access point to watch for the ambulance. Upon ambulance arrival, inform and assist medical personnel as required.

7. After assessment and statements have been taken, follow instructions from your supervisor, safety officer and/or manager.
8. All dangerous occurrences even those that do not involve injury or property damage must be reported to Occupational Health &Safety.

INVESTIGATION PROTOCOL

Once the victim/s and medical team has dispersed the safety officer and supervisor will continue to conduct an investigation. Determination regarding police intervention has been determined.

1. Photograph the scene, including all equipment and surrounding area.
2. Sketches should also be made with appropriate/accurate measurements.
3. Further interviews and statements taken if needed.
4. Accurate records are documented.
5. Written recommendations to prevent recurrence must be made and forwarded to mine manager and supervisors.
6. Immediate follow up on recommendations and implementation.
7. Review outcome of investigation with all participants.

EQUIPMENT MAINTENANCE PROGRAM POLICY

It is the policy of Alexco Resource Corp. to maintain all tools, vehicles and equipment in a condition that will maximize the safety of all personnel.

All tools, vehicles and equipment shall be properly maintained so as to reduce the risk of injuries to employees or damage to property.

All preventative equipment maintenance will be carried out by qualified personnel according to established schedules and that records of the maintenance done will be consistently maintained.

All employees shall regularly check all tools, vehicles and equipment that they are working with and shall take out of service any tools, vehicles or equipment that pose a hazard or risk due to a need for repair.

All employees are charged with the responsibility of following the written and practical instructions for equipment and vehicle use. Supervisors are responsible for the monitoring of the work place to ensure that compliance is obtained.

EQUIPMENT MAINTENANCE PROGRAM

In order to promote good accident prevention practices the following safety rules have been developed that co exists with the Preventative Maintenance Program Policy.

Each employee is responsible for his/her own actions and must be alert to the actions of others. The cooperation and support of all employees is essential to an effective Safety Program and each must do his part.

GENERAL EQUIPMENT SAFETY RULES

1. No employee shall operate or use any equipment in a manner that endangers him/herself or other employees. Only persons properly trained and authorized shall operate any equipment or machinery.
2. Report any unsafe conditions or equipment to your supervisor immediately and warn any employee who may become involved.
3. No person shall enter the work site while their ability to work is impaired. The use of alcohol, drugs or their derivatives is strictly forbidden on the job. As per policy there are sanctions for being under the influence while at work.
4. Running, horseplay, scuffling or fooling around is strictly forbidden on the job.
5. Never distract the attention of fellow employees while they are working.
6. Never point an air hose at another employee. Never clean clothes or skin with compressed air.
7. Rings, wristwatches, bracelets, dangling neckwear, or long loose hair must not be worn in any work situation where there is a hazard of them being caught in machinery or other objects.
8. Protective goggles or face shields must be worn for all operations where the eyes or face are exposed to flying objects, injurious light, chemicals or intense heat.
9. Gloves must be worn when handling material with sharp edges or rough or abrasive surfaces. Gloves should not be worn when using small power tools, which have rotating or reciprocating parts.
10. Keep work areas clean and tidy at all times. A daily clean up is usually necessary.
11. Hoses, cables, ropes, wires, etc. must be stored when not in use so to prevent tripping hazards.
12. Hazardous materials must be identified, stored and handled in accordance with the Workplace Hazardous Materials Information System (WHMIS) regulations.
13. Do not clean or adjust equipment or machinery while it is running or in motion when there is a danger of contact with moving parts.
14. Never leave a machine running while unattended except for stationary equipment (compressors etc.) or where special conditions prevail and precautions are taken.
15. Only authorized personnel may do electrical work.

16. Do not allow combustible materials to accumulate on the job site. Good house keeping is the best method of preventing fires.
17. Never smoke in a “NO-SMOKING” area.
18. Gasoline powered motors must be stopped before refueling and the NO-SMOKING rule is observed.
19. Gasoline, oil, grease and other flammable liquids are to be stored clear of the work area and NO-SMOKING signs are to be prominently displayed in the storage area.
20. Fire extinguishers must be recharged immediately after use.
21. No employee is to ride on the deck of a truck or in the back of a pickup truck unless the vehicle has been designed or modified for this purpose. All employees are to ride in the cabs of vehicles. Wearing seatbelts in all vehicles and equipment where they are provided is mandatory whenever the vehicle or equipment is in motion.
22. Never leave loose materials or tools where there is a danger of them falling.
23. Do not leave openings uncovered or unguarded.

Employees are to know and comply with the General Safety Rules. Failure to do so will result in disciplinary action up to and including termination.

A copy of the General Safety Rules is provided to and reviewed to each employee who has not previously worked for this Company. This will be done prior to commencement of work during the orientation process.

Copies of these General Rules will also be posted at each job site.

WORKING SAFELY IS EVERYONE’S RESPONSIBILITY

HEALTH AND WILDLIFE

HEALTH, ALLERGIES AND FIRST AID

HEALTH AND ALLERGIES

The health, hygiene and allergies of all employees are a high priority for Alexco management and co-workers particularly in remote access areas. Confidentiality and objectivity must be followed to protect employees, to anticipate possible problems and to achieve proper solutions to health problems that may arise.

Alexco requires that all employees complete an information form listing any ailments, allergies, adverse reactions (ie. Penicillin), medication, required, size and frequency of dosages, and circumstances that might cause onset of symptoms (ie. fatigue, alcohol, hunger, stress etc.). Recent injuries, operations, and special dietary needs should be listed. The form also requests a doctors name and contact information also be listed. This information is kept confidential on the employee file. This information is also shared with the first aid attendants for obvious reasons.

It is not sufficient to rely upon individuals to take suitable precautions or countermeasures to sustain your health. Certain reactions such as insulin overdose or allergic shock may render a person incapable of rational or suitable action. It is very easy for one to misplace, use up, or neglect to apply required medication. Dangerous reactions such as bee venom may never have been recognized prior to going into the field. Failure to administer medication in a timely basis can result in comas, seizures or severe reactions. Thus unplanned circumstances such as loss of or breakage of medicine containers, being stranded away from the medication due to accident or weather conditions or non-availability of medicine in a remote setting must all be considered. Co-workers should be alerted to watch for adverse reactions and everyone should know how to contact first aid for help.

Numerous highly infectious ailments can disrupt the camp and once contracted are hard to control. Extra precautions with respect to drinking water, cookhouse cleanliness and personal hygiene may avoid problems, but once a condition is recognized victims should be evacuated for proper medical treatment immediately. Common rapidly spread illnesses include hepatitis, dysentery, eye infections, boils and mononucleosis. Tuberculosis can be contracted and is more common in the north.

As a general rule any condition serious enough to impair a workers ability to do his/her job must be referred to the first aid attendant or a doctor. Consultation with the Mayo Nurse's Station doctor and nurses is available at all times.

WATER

Do not drink water directly from the streams or ponds on the Keno Hill project. These areas are frequented by rodents and other animals that may be depositing feces into the water system or by lying dead in a state of decomposition in the water stream. Serious painful diseases can result.

- Drink water from the filtered water system in camp or take bottled water with you.

FIRST AID

The first aid room is located on the ground floor of the administration building. There is a qualified first aid attendant on site at all times who is available 24 hours. The attendant if not in the administration building can be reached by hand held radio on **channel 1**. If you are in need of first aid emergency assistance and not able to get to the first aid room, use the radio, call "**first aid, first aid, first aid**" identify yourself, give your location and if possible briefly describe your medical emergency. All minor cuts, scratches and burns should be reported and attended to as these can develop into more serious injuries and infections.

The mine is also equipped with an ambulance and the Mayo hospital is 30 minutes away by road. There are fully equipped first aid kits at each work area, drill sites and in the Alexco vehicles.

Alexco strives to have all employees trained in Standard First Aid and CPR. Courses are offered throughout the season. Please notify your supervisor or the Safety Officer if you require the training.

Each season a volunteer emergency response team is on site to assist first aid responders in emergencies. This team meets regularly for practice drills. Staff is encouraged to volunteer. Volunteering

HYPOTHERMIA

Hypothermia is a year round hazard. It can occur from exposure to cold winter temperatures but it often occurs from sudden immersion in icy lakes, streams or ponds in warmer weather.

SYMPTOMS:

Impending Hypothermia – core temperature is decreased to 36 degrees. The skin becomes numb and waxy, muscles become tense shivering may begin. Fatigue and signs of weakness begin to show.

Mild Hypothermia – the core temperature has dropped 35-34 degrees. Uncontrolled intense shivering begins. Victim is still alert and able to help him or herself, movements become less coordinated and the coldness is creating pain and discomfort.

Moderate Hypothermia – Core temperature is now about 33-31 degrees. Shivering slows or stops, muscles begin to stiffen and mental confusion and apathy sets in. Speech becomes slow, vague and slurred breathing becomes slower and shallow and drowsiness and strange behavior may occur.

Severe Hypothermia – Core temperature is now below 31 degrees. Skin is cold bluish and gray in color, eyes may be dilated. Victims are very weak a marked lack of coordination, slurred speech, appear exhausted and almost seem drunk, denies problem and may resist help. There is loss of consciousness. There may be little or no apparent breathing, and they may be very rigid, unconscious and may appear dead.

Caution

There continues to be controversy regarding how to deal with hypothermia. Always assist and treat the patient no matter if you may feel they have died. Use extreme care and gentleness as they can often have deadly reactions if handled roughly (cold blood rapidly pumped into the heart may cause a heart attack).

It is a priority that the patient's core temperature does not continue to drop. Get the patient out of the elements into a sheltered area. If possible start a fire, warm with blankets.

Treatment (mild)

At first signs remove the patient/ yourself from the elements into shelter by using whatever means are available (tents, overturned canoe, tarps etc). Build a fire as soon as possible. Remove wet clothing, warm body with dry/warm clothes, blankets, and sleeping bags. Drink warm (sweet) drinks (no alcohol, coffee or tea).

(moderate to severe)

Handle patient very gently. Use body heat if a victim is in severe hypothermia. Keep patient awake and ignore pleas to be left alone. Concentrate on heating the head, neck and groin. Do not rub the skin. Gently transport victim to medical support as soon as possible.

Prevention is the best solution. Always be prepared before going into a situation where this may be a concern. Have the proper warm, extra, layers of clothes including waterproof outer wear. Dress for all conditions. Carry waterproof matches or lighter and energy producing food like candies, raisins and nuts. Always work in pairs. Be knowledgeable. Have a system to keep supervisors, other employees aware and have an emergency contact plan.

HYPERTHERMIA/ HEAT STRESS

When heat reduction exceeds heat loss within the body, hyperthermia may develop. Also described as heat stress which if not treated can progress to heat stroke. Often this occurs when working and exerting oneself in the hot sun. There are four types of hyperthermia/heat stroke 1) heat cramps, 2) fainting, 3) heat exhaustion, and 4) heat stroke. Heat cramps and heat exhaustion result from dehydration and salt depletion as the body sweats to lower the internal temperature. Heat stroke occurs when the core temperature exceeds 41 degrees and the body cooling mechanisms have failed. Hyperthermia can develop during exertion in moderate to hot temperatures.

SYMPTOMS AND TREATMENT

Heat cramps

Recognizing the signs is not easy in the early or mild stages of heat stress. Get out of the sun and rest in the shade. Cool yourself with cold presses on the forehead, back of neck and armpits. Fan yourself; drink fluids (salt infused drinks such as Gatorade are recommended, not alcohol). Gently stretch affected muscles, continue applying cold compresses/ice or what ever is on hand.

Heat Exhaustion

Symptoms include cool, clammy skin, headache, dizziness and fainting, hyperventilation, nausea, vomiting and confusion. Rest in a cool, shaded place with legs slightly raised and clothing loosened. A conscious victim should drink electrolyte replacement solution to replace the water and electrolytes lost by dehydration. 24 hours of rest and rehydration are necessary before resuming work.

Heatstroke

Is a life threatening condition and requires **immediate** medical attention. As the body core temperature approaches 41 degrees the victim no longer produces sweat. There are two forms of heat stroke **Exertional Heat Stroke** (which is more commonly affects field employees) and **Classic Heat Stroke**:

Exertion Heat Stroke symptoms:

Pale, cool, damp skin or hot, dry red skin, irrational hostile behavior, headache, dizziness, nausea, vomiting and collapse.

Classic Heat Stroke symptoms:

Hot, dry, red skin, rapid pulse, headache, nausea vomiting, delirium, convulsions, collapse and coma.

Interim Treatment prior to medical evacuation:

Move victim out of the sun to coolest place possible. Cool as quickly as possible (head, neck, armpits, groin). Drape the victim with lukewarm wet sheets or towels to conduct the heat away from the body. Fan the body with whatever means is available. Try and place the victim on a screen so that they can be cooled from both above and below. The aim is to maximize evaporation from the body to cool the core body temperature without chilling the victim.

Prevention and common sense is the best solution. Dress for the weather and activity level, wear loose fitting clothing that protects the skin from the sun. Drink plenty of fluids before feeling thirsty, take salt with food in normal to liberal quantities and always wear a hat in the hot sun. Take regular breaks out of the sun and pay attention to your body to monitor any early signs.

WILDLIFE

BEARS

Black and grizzly bears often pass through or hang around the valley including the Elsa mine site. To avoid tragic results it is important to have respect and a good understanding of bears and their behavior. It should always be remembered that bears are unpredictable and are potentially dangerous. When threatened or surprised they will defend themselves, their young, their food

and their territory. Bears are strong and surprisingly agile, capable of inflicting serious injury or death in an attack.

Black bears adapt more readily to areas frequented by humans. They tend to be found in more wooded areas and dense brush land year around. While grizzlies most often stay in the high country during the summer and early fall, moving to valley bottoms in late fall and spring. Although bears hibernate in the winter it is not uncommon to see a bear mid-winter taking a short break from the den.

The normal diet of a bear will include roots, berries, insects and occasionally a small mammal or fish when it is available. Bears will feed on animal carcasses or take over another kill from other predators. A keen sense of smell directs the bear to food sources sometimes from a great distance. Bears will venture into human environments if there is food readily available. Having a clean camp with no garbage lying around is necessary.

BEAR IDENTIFICATION

Black Bear	(Ursus americanus Pallas)	Grizzly Bear	(Ursus arctos horribilis Ord)
Color	Varies from pure black to cinnamon or blond – most are black with brownish muzzle, often a white patch below throat or across chest.	Color	Varies from black to blond frequently with white tipped fur giving a grizzled appearance.
Height	About 90cm at the shoulder	Height	A little over 1m at the shoulder-reaches 1.8 to 2m when standing on hind legs.
Length	About 1.5 m.		
Weight	Ranges from 57kg to more than 270kg – females are generally smaller than males.	Weight	Averages about 200kg with some weighing up to 450kg – females are generally smaller than males.
Distinguishing Characteristics	Smallest member of the North American bear family. Usually has straight facial profile with long nostrils. Feet are flat soled with short curved claws. Smaller than a grizzly and has a higher head carriage and straighter shoulder rump line. Agile climber.	Distinguishing Characteristics	Prominent hump over the shoulders formed by the muscles of massive forelegs. Sloping back line. Dished or concave face. Long curved claws.



TREAT ALL BEARS WITH EXTREME CAUTION!

SAFETY PRECAUTIONS

- Work with a team, be loud, make lots of noise, talking, whistling, singing, have bear bells. Blowing an air horn at regular intervals will make your presence known. Most bears will leave the area if they are aware of your presence. Do not wear headphones to listen to music, as it will block out any warning noises, even shouts of your co-workers.
- Observe the wind direction and be alert if you are traveling into the wind. The bear may not pick up your scent and be warned of your presence. If you are working in dense brush or near rushing water the bear may not hear your voices or a small noisemaker.
- Avoid dead animals and berry patches, as these are prime food sources for bears. Circling ravens and camp robbers often indicates the presence of a carcass.
- Be observant and watch for bear signs. Fresh tracks, droppings, trampled terrain, and new diggings are all signs. If you do see fresh signs leave the area.
- NEVER approach a bear, especially a cub. Mother is usually close and will attack if she thinks her cub is in any danger.

Should you need to camp over night in the bush there are some additional precautions you need to take.

- Choose a camp spot away from animal or walking trails and the sound of rushing water.
- Keep a clean campsite. Odours from any food or garbage will attract bears to your campsite. Do not leave food, garbage, coolers, utensils, or cooking equipment around your site. Lock food away in a vehicle, or tie it in a tree (4 meters off the ground). Avoid smelly foods, garbage should be packed in airtight bags and taken with you when you leave. Do not bury or burn garbage or food scraps.
- Do not cook in or near your tent or sleeping space. Never eat in or on top of your sleeping bag or in your tent. If possible change your cooking clothes before bed and store them far from your sleeping area.

- Bears may be attracted to smelly cosmetics such as soaps, perfume, deodorant etc. they may also be attracted to women during their menstrual cycle. Using tampons and disposing them in an airtight bag is recommended.

BEAR CONFRONTATIONS

Despite all of the precautions you may still have an encounter with a bear. While there is no guaranteed method of dealing with a bear confrontation, some of the points, which are listed, have proved useful.

- Leave the areas. If you see a bear from a distance take a wide detour or leave. If you cannot retreat, then wait for the bear to move from your path. Always leave the bear an escape route.
- Stay calm. Acting in a calm and relaxed manner so as not to threaten the bear has proven successful. Assess your situation and look for possible escape routes.
- Move slowly. Slowly back away and speak to the bear in a soft monotone voice. Screaming or sudden movements may provoke an attack. Never throw anything at a bear and try not to run away. Bears can run about the same speed as a racehorse and have very fast reflexes.
- Monitor the bear for aggressive behavior. The bear may snap its jaws and make a “woofing” sound. It may keep its head low and have his ears laid back. If the bear moves towards you consider this an aggressive act. Sometimes a bear will bluff its way out of a threatening situation by charging and then veering away at the last second. A bear that rears on its hind legs and waves its nose in the air is trying to identify you. Remain still and speak in low tones. If the bear does not display aggressive behavior, continue talking to it and back away slowly. Remember – never run.
- Look for a tree to climb. If a bear is behaving aggressively back slowly towards the tree. Carefully remove your pack or jacket. And set it on the ground to distract the bear. Climb as high into the tree as you can. Although adult grizzlies can reach about 4 meters (13 feet). Stay in the tree until you are sure the bear has left the area, then leave quickly. Be aware that black bears are good climbers and a tree might not afford an escape for them.

BEAR ATTACK

Again most attacks occur when a bear is surprised usually a mother with cubs or a bear protecting its food. There is no guaranteed life saving method of surviving an attack; often things happen so fast that conscious thought is not possible. Each situation is unique. However, there are some general guidelines that have proven to be helpful in past attacks. There are some distinct differences in tactics depending on the type of bear you are dealing with.

GRIZZLY BEAR

Playing dead and offering no resistance may be effective. Curl up in a ball covering your face neck and abdomen. Remain still until the bear leaves the area. This method requires a significant amount of courage but has resulted in successfully surviving an attack. Fighting back usually increases the intensity of the attack, although rare cases it has caused the bear to leave.

BLACK BEAR

Playing dead does not work. Try to escape to a secure place or climb a high tree. Remember a black bear may climb a tree after you. A last resort is to threaten the bear with any available object. This tactic has worked with some bears. Fighting back has also resulted in bears breaking off the attack.

BEAR REPELLENTS

There are canisters of bear spray available at camp for use when heading out into the bush. Bear spray should not be considered an answer to dealing with a bear. At best it should be considered as a last resort. The bear has to be within about 5 feet to have any effect from being sprayed. Hence, you would have to be in the process of being attacked to use the spray. It is still best to take the necessary **precautions** to avoid aggressive encounters with bears.

REPORTING

All bear sightings need to be reported to camp personnel. Notify by radio where the bear was seen and what type of bear etc. The sighting should be recorded on the camp map. If the bear appears to be hanging around the area game branch will be notified to relocate the bear if required.

RODENTS

The Keno Hill Mine site consists of numerous old buildings that are occupied by a large contingent of mice, squirrels and other small rodents. While they can create a great nuisance in camp by infesting food supplies and contaminating work surfaces with feces and inhabiting the bunkhouse causing sleepless night they can carry the disease hantavirus.

Hantavirus

It is rare or even unlikely you will encounter this disease. However; when working in certain types of environment you must take precautions. The hantavirus is a disease carried by mice (usually deer mice) that can spread from their droppings, urine or saliva. Hantavirus is spread by breathing in small particles (of the feces etc.) that are in dusty air most often found in old abandoned dark buildings.

Closed dark shut in buildings are prime spots for mice to nest in. If the dust is disturbed by sweeping, brushing or moving things around the virus becomes air born and inhaled. Before beginning work in this environment specialized protective breathing equipment is required. **Safe work procedures need to be consulted.**

Symptoms can appear immediately or up two weeks after exposure by having flu like symptoms. If your flu persists with a high fever and you experience chills, body aches and troubled breathing, consult your doctor immediately and let them know you could have been exposed to mice habitat in the past while so that the appropriate tests can be done.

BUGS AND INSECTS

Mosquito's, black flies and other insects can be unbearable in camp and surrounding areas during the summer season. Using mosquito repellent is recommended reapplying regularly; wear long sleeved shirts and pants.

BEES AND WASPS

You will encounter bees, wasps and their nests in camp and surrounding area. Be aware of where you are walking or sitting. Wasps are attracted to food and sugary drinks. Keep all food covered and dispose of it in appropriate receptacles. Avoid wearing strong fragrances, perfume and bright clothing, which they are also attracted to.

If you have had a previous significant allergic reaction to a sting it is very important that you have readily available (and know how to use) a self-administered inject able epinephrine emergency kit. As well you must advise the first aid staff of this allergy and if stung contact first aid immediately.

If you have been stung with no allergic reactions you may require only local wound care from first aid. The stinger needs to be removed by brushing in the direction of the stinger (not against which would push it further in). Itching and swelling can be helped by taking and oral antihistamine such as Benadryl. Pain may be treated with medicine like ibuprofen, Motrin etc.

Attachment 5

Asbestos Pre-job Meeting Safety & Health Checklist



Asbestos Prejob Meeting Safety & Health Checklist

- Risk Assessment/JHA completed, reviewed and attached.
- Site Work Plan prepared & available on site.
- Site Safety Manual available on site.
- Asbestos Trained workers on site. List attached.
- Asbestos Trained Supervisor on site: _____
- Emergency contact numbers posted & available.
- First Aid on site: Harlan Schilling
 Jennifer Dobbie or
 Other First Aid Attendant: _____
- First Aid Kit located: _____
- Eye Wash Stations located: _____
- Fully charged radios available.
- Fire Extinguishers location: _____
- Wind Direction : _____
- Building inspected: _____
- Utilities disconnected: _____
- Demolition/Do Not Enter/ warning signs posted.
- Traffic, rerouting, blocking, flagging, required.
- Safe Access to work area clear and well lit.
- Tanks voids and vaults located.
- Tanks degassed and rendered safe.
- Debris dropping zone clearly marked and barricaded.
- Electricity and other services turned off.
- Earth leakage to all temporary power.
- Shoring and underpinning where required.
- Floors backed and propped where required.
- Penetrations in floors covered/barricaded.
- Open sides of floors, roofs, stairwells, light wells, and lift shafts protected.
- Vehicle buffers supplied at debris shoot and openings.
- Welding and cutting cylinders in cages or otherwise secured.
- Compressors hose connections fitted with safety pins.
- Combustible debris not building up to become a fire hazard.
- Lift shafts barricaded and catch platforms where necessary.
- Safe work platforms provided.
- Hard level surface provided for elevated work platforms.
- Scaffolds tied to structure, safe working decks, guardrails, toe boards.
- Scaffolds undamaged and free of debris.

Personal Protective Equipment:

- Respiratory, hearing and eye protection provided.
- Impervious disposable coveralls provided.
- Rubber gloves provided.

PPE Continued:

- Steel toed rubber boots.
- HEPA equipped vacuum, DOP tested.
- Powered air purifying units HEPA filters, flow gauges, batteries, charger
- Half face air purifying units
- Alcohol wipes for cleaning units
- 3 stage pop up decontamination unit

Date: _____

Supervisor: _____

Workers on Site:

Name:

Signature:

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.