Elsa Reclamation and Development Company

Keno Hill Mine

Site Investigation and Improvements, Special Projects

Hydrocarbon Contamination

Date:

March 31, 2009

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1.0 INTRODUCTION

As part of the report entitled Baseline Environmental Report United Keno Mines Property completed by SRK Consulting in April 2007, locations of potential hydrocarbon contamination on the property were identified. These sites were identified from past practices, Underground Storage Tanks (USTs), and above ground storage tank locations, fuel and containment spills, etc. The purpose of this investigation was the assessment and consideration of remediation processes for these sites. The optimal treatment method for hydrocarbon-contaminated soils is bioremediation at a Land Treatment Facility (LTF). It is the most economical and effective method, and is preferred by government regulators.

LTFs are an above-ground remediation technology that reduces petroleum levels by way of biodegradation. Once the contaminated soil contains hydrocarbon concentrations below levels acceptable for their intended use, it may be used as cover material, or for other limited uses, based on the level of remediation completed. LTFs require the contaminated soil to be spread in a thin layer along the ground or piled windrows, atop an impermeable layer, and within a bermed area to prevent leachate and off site migration of run-off. Accelerating microbial activity through aeration and/or the application of fertilizers can assist in depleting petroleum quantities (Storming Media, 1998). LTFs have proven effective in reducing concentrations of nearly all the constituents of petroleum found at UST sites.

The objective of the assessment was to conduct a sampling program at potential contamination sites and identify an area for possible LTF construction.

1.1 SCOPE

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

Task 1 – Data Review/Quantify Estimate

Access Consulting Group (ACG), a wholly owned subsidiary of Alexco Resource Corp., personnel reviewed previous reports by regulators and consultants for potential contaminated sites. These sites were listed by location, contaminant cause (i.e. fuel spill or UST, etc), and preliminary estimated volume. The volume estimate is particularly important

for LTF planning purposes as it will determine the necessary size of the LTF for effective remediation.

Task 2 – Data Verification

A site field investigation followed the data review. ACG field personnel visited each site and conducted a physical inspection and limited sampling program. Where necessary, limited test pitting was conducted to delineate the extent of contamination. The results from this field investigation were used to verify the potential volume of contaminated soil and the degree of hydrocarbon contamination.

Task 3 – LTF Assessment

Following the field investigation (which included a consideration of the Valley Tailings Area), and review of subsequent results, an assessment of potential LTF site locations was carried out. The construction and operation of an LTF must follow guidelines, limitations, and specific considerations as prescribed by the Government of Yukon (GY). The following list of relevant considerations was used in the LTF location selection for this assessment:

Permitting

- A Land Treatment Facility Permit, provided by GY, Department of Environment, Environmental Programs Branch is required for all LTFs in the Yukon

Environmental Assessment

- LTFs with a capacity of 3,000 cubic meters or more are required to undergo a Yukon Environmental and Socioeconomic Assessment Act (YESAA) assessment. GY uses the actual quantity of soil being deposited to assess this capacity; therefore, a YESAA environmental assessment would not be necessary in this case if the survey confirms the quantity (2,500 m^3) is below the threshold (3,000 m^3). For the purpose of this report the volume is assumed to be less than 3,000 m^3 at any one location; however, there may be a requirement for a Yukon Environmental and Socio-Economic Assessment Board (YESAB) assessment (YESAB Assessable Activities, Exceptions, and Executive Committee Project Regulations Part 8, Item 2).

- A survey is required to determine the actual volume of materials in the stockpile.
- If this facility were to be designed as a multi-use LTF, or if it later becomes multi-use, a YESAA assessment would be required. Specific timing and costs for this process have not been included in this report.

Site Selection

Any site scheduled for the construction of an LTF must:

- Be large enough to permit the soil to be spread out into layers less than 0.5 m in thickness or into spaced rows of small piles no higher than 4 m; and
- Have native soil that is sufficiently fine-grained (silt or clay textured) to act as a semi-impermeable barrier to the movement of liquids, or have a geotechnical impermeable base layer under materials

Conversely a LTF cannot be constructed on any land where:

- The slope is greater than 6%;
- The seasonal high water table is less than 3 m below the surface;
- The LTF would be within 100 meters of a surface water body;
- The land is identified as being within a 25-year floodplain; or
- Residential property lines or buildings are less than 60 m away.

Construction

Construction of an LTF at potential sites in the Keno district would involve the following tasks/features:

- Site preparation (clearing and grading);
- Construction of berms of low permeability;
- An impermeable liner with a layer of bedding sand or soil on top with hydraulic conductivity less than 10^{-5} cm/sec;
- Diversion ditches to control runoff;
- Signs identifying the facility is holding petroleum hydrocarbons;
- A fence securing the facility to prevent access by unauthorized persons; and
- Relocation of the contaminated materials into the constructed cell in windrows.

Operation

LTF Regulations require that:

- The operational season of a LTF must be limited to April 1 and October 31 of each year.
- If the soil is to be placed in the LTF to a depth exceeding 0.15 m, the soil must be tilled at least once per month;
- The addition of fertilizer may accelerate the rate of remediation, provided it is added in appropriate quantities;
- Care should be taken to ensure that the LTF does not become water saturated. Water saturation will stop the remediation process and create contaminated waters that will also have to be treated; and
- Monitoring and testing regime be prepared and undertaken.

Decommissioning

- The liner (if used) must be disposed of at a permitted landfill;
- The land must be recontoured and returned to its pre-LTF state;
- The now remediated soil must be removed and reused as fill; and
- Testing is required to ensure no contamination has been left behind and the soil meets “Industrial” levels.

Task 4 – Reporting and LTF Permitting

Several locations throughout the property were assessed using the above criteria. ACG has chosen the optimal locations and will submit the required permit applications as necessary. The locations of hydrocarbon contamination and quantities have been summarized and reported within this report.

2.0 PHYSICAL SETTING

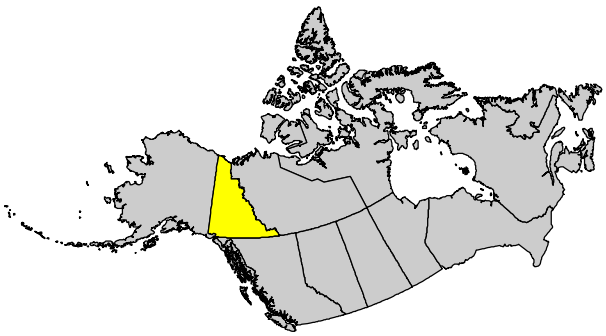
2.1 OVERALL SITE DESCRIPTION

The Keno Hill mining 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 larger scale, outlining the various sites within the Keno Hill Silver District.

The Keno Hill Silver District site lies within the Yukon Plateau, just south of the Wernecke Mountains. The elevation of the valley is about 700 m (2,300 feet) above sea level. Galena Hill, Keno Hill and Sourdough Hill rise to elevations of about 1,400 m, 1,825 m and 1,370 m, respectively. The terrain consists of concordant, rolling, upland areas separated by wide valleys. Alpine mountain peaks extend above the uplands locally. Valley bottoms and slopes have dense boreal forest cover but the upland commonly extends above tree line and is tundra covered.

Areas of hydrocarbon contamination were historically noted throughout the region. Significant hydrocarbon impacted areas throughout the district include previous spills, near fuel storage tanks, waste oil storage tanks, oil change areas and garage and boiler rooms. The Elsa Village site represents the highest single risk for extensive, unidentified contamination, based on the numerous hydrocarbon storage facilities located there and on the long history of this site as the ore processing center for the district.

Areas selected for potential LTF locations are previously disturbed and relatively flat sites (less then 6% grade). Minimal work on the approaches and access to these potential locations will be required. The potential LTF locations are not within 100 m of surface water bodies or within 25 year floodplains. There are no residential properties or buildings that are being used within 60 m of the possible LTF locations. All the proposed LTF locations are relatively close to or right within the Elsa Village due to the large amount of impacted soil in the immediate area.



ALEXCO

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KENO HILL SILVER DISTRICT

SITE LOCATION MAP

Drawn By: EA	**FIGURE 1**
Checked By: KN	DATE: 3/31/2009

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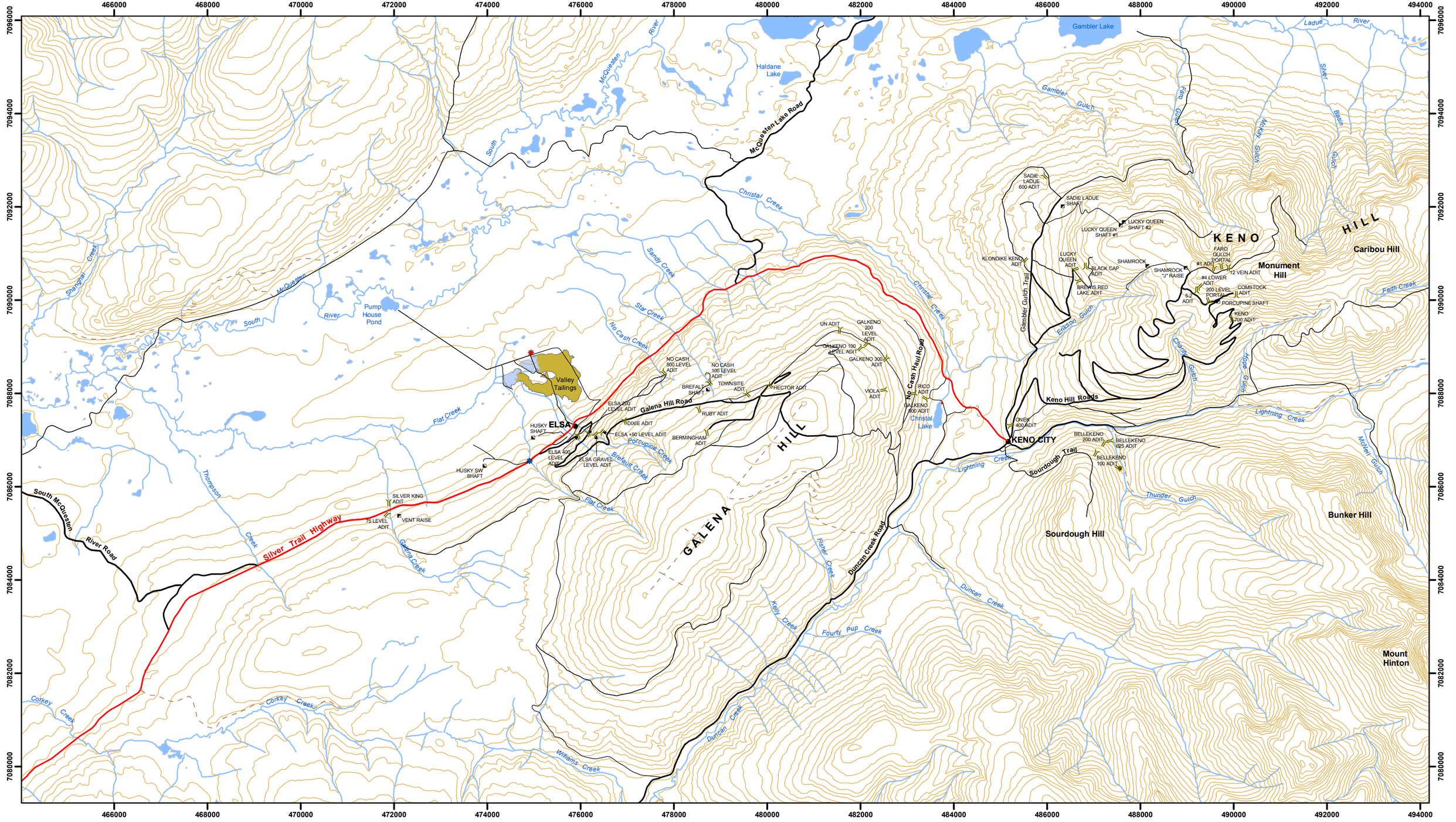

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1:75,000
(when plotted on 11x17 inch sheet)

0 1 2 4 6 km

Legend

Topography

- Town
- Silver Trail
- Secondary Road
- Limited-use road
- Trail
- Watercourse
- Waterbody

Mine Workings

- Valley Tailings
- Adit
- Shaft (to surface - connection to underground not determined)

Notes:
This map is for illustrative purposes only.
This is not a legal document.
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.
Quartz claim boundaries are current as of November 21, 2008.
Data source: http://geomaticsyukon.ca.
Ownership is current as of November 26. Claim status report obtained from the Mining Recorder (Mayo)
Projection: UTM Zone 8 NAD83
NTS Sheet 105M/13 and 105M/14

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HYDROCARBON CONTAMINATION REPORT

KENO HILL SILVER DISTRICT

PROPERTY OVERVIEW AND SITE LOCATION MAP

Drawn By: EA	DATE: 3/31/2009	**FIGURE 2**
Checked by: KN	FILE: \\dawson\d\projects\projects\ales-05-012008 contract special projects\fig1_2_propertyloc.mxd	

3.0 PREVIOUS HYDROCARBON 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, in March, 2000. The assessment was prepared for the Waste Management Program of Indian and Northern Affairs Canada. The five volume report described current baseline environmental conditions including various locations with hydrocarbon contamination throughout the Keno Valley and Dublin Gulch area. This report was referenced while conducting the current hydrocarbon assessment.

A baseline report entitled "*Baseline Environmental Report, United Keno Hill Mines Property"* was prepared for Elsa Reclamation & Development Company (ERDC), a wholly owned subsidiary of Alexco Resource Corp., in April 2007 by SRK Consulting Engineers and Scientists (SRK). While conducting the field inspections for this report with SRK, ACG observed and documented areas where evidence of hydrocarbon contamination was visible (Appendix F of SRK report, also attached in Appendix A of this report). The SRK report confirms and updates areas of impact identified by the March 2000 site assessment. Its purpose was to delineate the known environmental conditions and to serve as a basis for the development of closure and reclamation plans. It recommended that delineation and proper soil sampling of such hydrocarbon contamination be carried out during remediation activities or in conjunction with closure planning studies. Information gathered in this baseline report was referenced while conducting the current hydrocarbon assessment.

4.0 SITE INVESTIGATION

4.1 METHODOLOGY

The hydrocarbon assessment was undertaken as per the *Yukon Contaminated Sites Regulations* (CSR) with particular attention to Section 8: *Site investigations* and Section 9: *Site Assessments*. Part 5, Section 17: *Land treatment facility* and Section 18: *Permits* were also used in determining a land treatment facility. All associated Protocols were followed as necessary to complete the project, particularly:

- *Protocol No. 2: Analysis of Samples Taken in Relation to the Contaminated Sites Regulation*;
- *Protocol No. 3: Soil Sampling Procedures at Contaminated Sites*:
- *Protocol No. 5: Petroleum Hydrocarbon Analytical Methods and Standards:*
- *Protocol No. 9: Determining Background Soil Quality; and*
- *Protocol No. 11: Sampling Procedures for Land Treatment Facilities*

Yukon CSR guidelines for Land Treatment Facilities: Construction, Operation and Decommissioning were also referenced.

4.2 SOIL SAMPLING PROGRAM

ACG conducted the hydrocarbon field assessment on two separate occasions. The first assessment was conducted by K. Neunherz and P. Inglis of ACG from August 25 to August 28, 2008 and concentrated on the scattered historical workings throughout the Keno Hill Silver District. The field visit consisted of a visual inspection and surface soil sampling program of all the potential hydrocarbon impacted areas identified in the previous reports as well as all any new disturbed areas that were safely accessible. Several test pits were excavated using a Kubota KX080-3 excavator during the field program as part of the LTF site selection process.

The second assessment was conducted by K. Neunherz from September 29 to October 2, 2008 and focused primarily on the Elsa town site. The field assessment included visual inspection, surface soil sampling and test pitting to approximately 3 m at areas identified as

having potential hydrocarbon impact or potential LTF locations. The test pits were excavated using a Hitachi 270 LC track hoe owned and operated by ERDC.

A summary of the 2008 field inspections, field screening results, laboratory analytical program and test pit locations are presented below in Tables 1 and 2. Selected photos (see Appendix B) show typical stains identified in the field as well as an overview of the test pit program. Test pit field logs are attached in Appendix D and Figures 3, 4 and 5 outlines the areas assessed for hydrocarbons as well as for potential LTF locations.

Table 1: Hydrocarbon Site Assessment Summary

Historical Working	Location Description	PID Reading (ppm)	Sample Analyzed	Approximate Area of Impact	Comments
Galkeno 900	na	nt	No	na	No Visible areas of Hydrocarbon Impact
Keno 700	2 m from Generator Shack to 0.4 m	41.3	**Yes**	20 m x 20 m x 1.0 m	
	5 m from Generator Shack to 0.5 m	38	No		
	9 m from Generator Shack	40.1	No		
	Oil Change Area	32.4	**Yes**		
Dixie Adit	North side of Garage	248	**Yes**	5 m x 2 m x 1 m	
	East Side of Garage	54	No		
No Cash 100	Outside of Garage	23.4	No	2 m x 3 m x 0.5 m	1 full Drum of Rock Drill Oil PB320NF
	Near Tower Tank	26	No		
Ruby Adit	Garage Waste Oil Pile	159	**Yes**	10 m x 10 m x 0.5 m	Staining in front and beside building, and inside garage
	Oil Pan Stain	690	**Yes**		
	Large Unknown Stain	390	**Yes**		
Town site		nt	No	1 m x 1 m x 1 m	Minor Staining
Birmingham		nt	No	na	No Visible areas of Hydrocarbon Impact
Ruby Shaft		nt	No	na	No Visible areas of Hydrocarbon Impact
Birmingham Pit		nt	No	na	No Visible areas of Hydrocarbon Impact
Past Birmingham Pit	In Area of Old Dump	nt	No	1 m x 1 m x 1 m	Minor Staining Appears to be from Oil Change
Hector Calumet	staining near conveyor	32	No	2 m x 3 m x 0.5 m	Minor Staining
Galkeno 300	Staining at North End of Quonset	30	No	11 m x 11 m x 1 m	
	Staining South West Corner of Quonset	60.1	No		
	Staining Inside Quonset	135	**Yes**		
Silver King	Inside and Outside Garage	134	**Yes**	7 m x 10 m x 1 m	Staining Inside and Outside of Building
	Landing Area near Rail	1241	No	6 m x 5 m x 1 m	
	Near Adit	29	No	1m x 1 m x 1 m	
Husky SW	Side of Hoist Building	nt	No	2 m x 3 m x 0.5 m	Heavy Staining of Concrete Floor
	In front of Hoist Building	nt	No	2 m x 3 m x 0.5 m	
Husky	Lube Shack	76	**Yes**	10 m x 10 m x 1 m	Concrete Floor Heavily Stained in Buildings
	Diesel Tank	217	**Yes**		
No Cash 500		nt	No	na	No Visible Areas of Hydrocarbon Impact
Elsa Tailings/Bone Yard	Vehicles	nt	No	5 m x 4 m x 1 m	Minimal Staining, Vehicles have Engines, Fuel Tanks
Onek Pit Area	4 Buildings with Minor Staining	nt	No	5 m x 4 m x 1 m	Minimal Staining
	Oil Filter in Building Floor	58.9	No		
Onek	Sump in Foundation	64.7	No	7 m x 10 m x 1 m	Difficult to Estimate - Large Pile of Rubble is Onsite
	Garage NE Corner	73.6	No		
	Outside HC Stain	91	No		
	Stain North of Foundation	29.9	No		
	Stain South of Foundation	29.1	No		
	Stain Within Foundation	34.7	No		
	Stain by Old Generator Building	402	**Yes**	10 m x 5 m x 1 m	Hard to Estimate under Foundation
Sadie-Ladue/Wernecke	Surface Stain Previously Identified	81.6	No	2 m x 3 m x 0.5 m	
	2 Small drip Stains by Managers House	nt	No	1 m x 1 m x 1 m	
Brewis Red Lake/Lucky Queen	Drip/leak on Newer Gravel	102	No	7 m x 10 m x 0.5 m	
Black Cap	Stains on Waste Rock Pile	nt	No	2 m x 3 m x 1 m	
Shamrock	Staining in Generator Shack	27	No	2 m x 3 m x 0.5 m	
	Stain near Main Building	26.5	No	1 m x 1 m x 1 m	
Runer	Some Surface Staining at Pit	25.5	No	2 m x 3 m x 1 m	3 Partially Full Drums, 2 Batteries
	Garage Floor	48.1	**Yes**	2 m x 3 m x 1 m	no ASTs, only 1 Building Remaining, Heavy Erosion
Bellekeno 625	Old Shop Area	87	**Yes**	20m x 15 m x 1 m	All Inside and Round Old Shop
Bellekeno 200		21.3	No	na	An Area previously Identified with HC Impact not visible
Bellekeno Backfill	Minor Surface Staining	21.9	No	2 m x 3 m x 1 m	Minor Staining
Elsa	Near UST by Elsa School	4	No		No Visible areas of Hydrocarbon Impact
	Elsa School yard	nt	No	na	No Visible areas of Hydrocarbon Impact
	Fuel Storage Area #1 By Sawmill	21.8	No	1 m x 1 m x 1 m	Minor Staining Near Drums
	Fuel Storage Area #2 by Pump	496	**Yes**	15 m x 10 m x 3 m	UST, No Test Pit
	Fuel Storage Area #2 Below Wall	349	No		
	Fuel Storage Area #7 and #8	nt	No		No Evidence of Staining
	Fuel Storage #5	nt	No		No Evidence of Staining
	Fuel Storage Area West of Mill Corner	47	No	10 m x 10 m x 3 m	UST present and Fuel Pump
	AST at End of Houses by Tank	2942	**Yes**	10 m x 10 m x 1.5 m	
	AST at End of Houses by Fill Pipe	5847	**Yes**	10 m x 10 m x 1 m	
	Waste Oil #2	34.2	No		No Evidence of Staining
	Old Tank South of Maintenance Shop	nt	No	1 m x 1 m x 1 m	Minor Staining
	Waste Oil Storage #3 0 cm to 30 cm	174	**Yes**	7 m x 5 m x 1 m	Test Pit to 1 m
	Waste Oil Storage #3 0.5 m to 1 m	27.6	No		Test Pit to 1 m
	Fuel Storage Area 4 - TP1 - 0 m to 0.5 m	6254	No	20 m x 20 m x 4 m	Test Pit to 3 m
	Fuel Storage Area 4 - TP1 - 0.5 m to 1 m	8854	**Yes**		
	Fuel Storage Area 4 - TP1 - 1 m to 1.5 m	8483	No		
	Fuel Storage Area 4 - TP1 - 2.5 m	7164	**Yes**		
	Fuel Storage Area 4 - TP1 - 3 m	5238	No		
	Fuel Storage Area 4 Second Tank	1056	No	15 m x 15 m x 2 m	
	Fuel Storage Area 4 Test Pit 2 0 to 1 m	162	No		Test Pit In front of Fire Hall to 3 m
	Fuel Storage Area 4 Test Pit 2 2 to 3 m	46.3	No		
	Fuel Storage Ares 3 - TP1 - 0 m to 0.5 m	2214	**Yes**	20 m x 20 m x 2 m	Test Pit in fron of tank to 3 m
	Fuel Storage Ares 3 - TP1 - 0.5 m to 1 m	1885	No		
	Fuel Storage Ares 3 - TP1 - 2 m to 2.5 m	251	**Yes**		
	Fuel Storage Ares 3 - Test Pit 2	106	No		10 m from Test Pit 1 to 2m
	Mill/Crusher House Test Pit 1	2.3	No		On North West Side, No Evidence of Staining, Test pit to 0.5 m
	Mill/Crusher House Test Pit 2	4.5	No		On North Side, No Evidence of Staining, Test pit to 0.5 m
	Mill/Crusher House Test Pit 3	0	No		On North East Side,no evidence of Staining, Test pit to 0.5 m
	Waste Oil Storage Area #1 TP1 - 0 to 0.5 m	128	**Yes**	35 m x 20 m x 0.5 m	Test Pit to 2 m
	Waste Oil Storage Area #1 TP1 - 0.5 to 1 m	53.6	**Yes**		
	Waste Oil Storage Area #1 TP1 - 1.5 to 2 m	41.3	No		
	Waste Oil Storage Area #1 TP2 - 0 to 0.5 m	70	No		Test Pit to 1 m
Estimated Area of Impact				5560 m^3	
25% Contigencey				1390 m^3	
Total volume of Impact				**6950 m^3**	

nt = not tested
TP = Test Pit
ppm = Part Per Million

Table 2: Test Pit Summary for Potential LTF Locations

Historical Working	Location Description	Test Pit Soil Description	Total Depth of Test Pit	Water Table	Sample Collected	Comments
Old Elsa School Yard	West End of School Yard	Fill to 2.2 m, fractured Bedrock at 2.3m	2.3 m	Left to stand for 24hrs, none	No	Potential LTF location
	Ball Diamond	Fill: clay, gravel and cobbles	3.0 m	Left to stand for 24hrs, none	No	Potential LTF location
	West End	Fill and organics	3.05 m	Left to stand for 24hrs, none	No	Potential LTF location
Framing/ Carpentry Yard	Far East End	Fill: clay, gravel, sand, organics	3.0 m	No	No	Potential LTF location
	West End near Access Rd	Large Cobbles and Boulders	3.0 m	No	No	Potential LTF location
CBC Tower	Same location as SRK TP, SE of Tower	Loosened Soil	2.5 m	1.2 m, trapped	No	Potential LTF location, water due to loose soil
	East of Tower	hard rock, bedrock at 2.4m	3.0 m	No	No	Potential LTF location
Valley Tailings Area	Near Current Sludge Ponds	tailings, bedrock at 2.9 m	3.2 m	No	No	Potential LTF location
	In SW empty pond	tailings to 1.6 m, cobbles/gravel to 2.4 m	2.4 m	No	No	Potential LTF location
Galkeno 300	Near Quonset	Silty sand with some gravel, cobbles	3.4 m	No	No	Potential LTF location
Bunkhouse 1	In front of Entrance	Sandy silt, some gravel and cobbles	3.6 m	No	No	Potential LTF location
Fuel Storage Area 4	TP1 - In front of Tank	Gravel and cobbles	3 m	No	Yes	Potential LTF location
	TP2 - 15 m from TP1 towards Fire Hall	Gravel and cobbles	3 m	No	No	Potential LTF location
Fuel Storage Area 3	TP1 - In front of Tank	Gravel and cobbles	3 m	No	Yes	Potential LTF location
	TP2 - 10 m away from Tank	Gravel and cobbles	3 m	No	No	Potential LTF location

1:60,000

* when plotted on 11x17 inch paper

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

0 0.5 1 2 3 4 5 6 km

- Test Pit Location
- Potential LTF Site

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FIGURE 3

OPTIMAL LTF LOCATIONS AND TEST PIT LOCATIONS

Drawn By: MD	Checked by: KN	DATE: JUNE 2009

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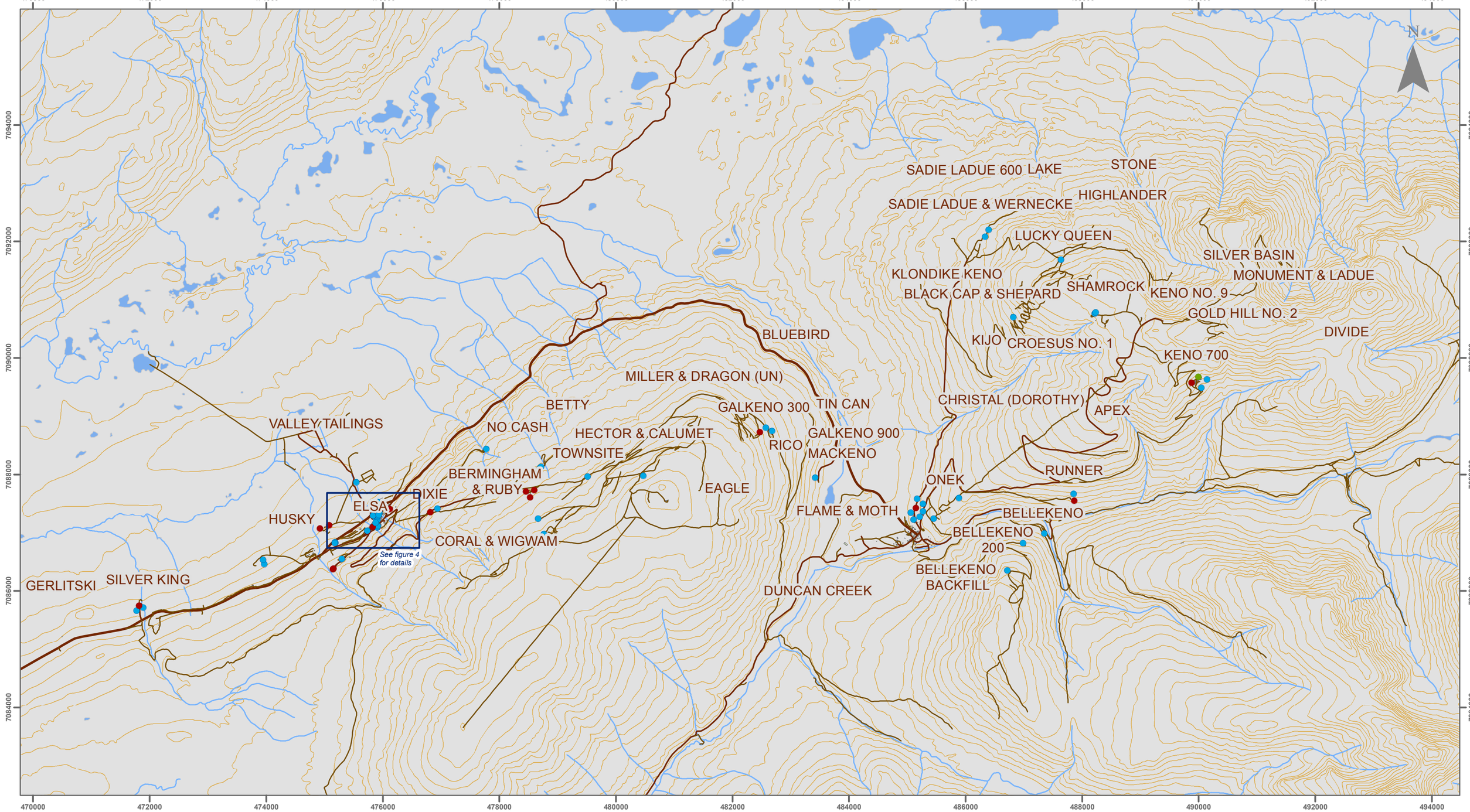

1:60,000*

* when plotted on 11x17 inch paper

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

0 1.5 3 6 km

- Inspected for Hydrocarbon Impact
- Inspected and Sampled - Does not Exceed Contaminated Site Regulations
- Inspected and Sampled - Exceeds Contaminated Site Regulations

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FIGURE 4

KENO HILL SILVER DISTRICT
HYDROCARBON
CONTAMINATION ASSESSMENT

Drawn By: MD	Checked by: KN	DATE: JUNE 2009

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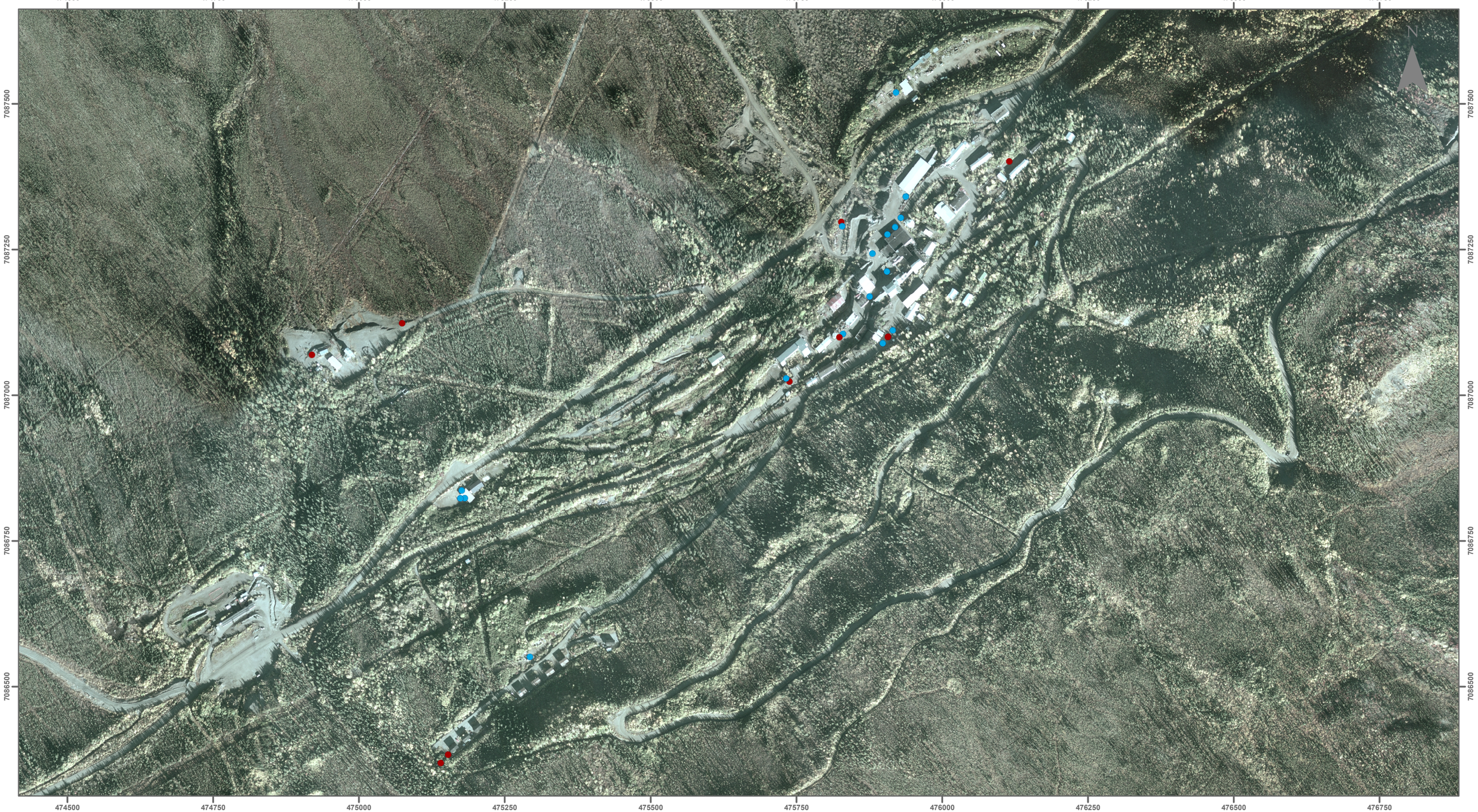

1:6,000*

* when plotted on 11x17 inch paper

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

0 62.5 125 250 375 500 m

- Inspected for Hydrocarbon Impact
- Inspected and Sampled - Does Not Exceed Contaminated Site Regulations
- Inspected and Sampled - Exceeds Contaminated Site regulations

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FIGURE 5

ELSA HYDROCARBON CONTAMINATION ASSESSMENT

Drawn By: MD	Checked by: KN	DATE: JUNE 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:

- ACG field screened samples using a calibrated Photo Ionization Detector (PID);
- Changed nitrile gloves between collection of samples, logging, and/or monitoring;
- Use of clean, laboratory supplied containers for sample collection;
- Filling of the jars completely to eliminate sample headspace and contaminant volatilization;
- Transportation/storage of samples in ice-packed, insulated coolers with chain of custody documentation;
- Using a Certified and accredited laboratory; and,
- Lab QA/QC measures were controlled by Bodycote laboratories.

4.4 SOIL SAMPLING AND FIELD SCREENING

Soil samples were collected as per the CSR, *Protocol No. 3 Soil Sampling Procedures.* Soil was collected from the test pits at intervals of 0.5 m to a maximum depth of 3 m. Composite grab samples were collected to represent the surficial impact. Soils in the profile were logged and examined for the presence of staining and field screened for headspace vapour concentrations.

A PID was used to obtain field screening results of volatile organic compounds (VOC) produced by grab samples of potentially contaminated soil. This was conducted by obtaining a sample of the soil in question and sealing it in a plastic bag for more than five minutes to allow VOC gases to develop in the headspace of the sealed bag. The pump probe of the PID was then inserted into the bag and a reading was taken. This method measures soil hydrocarbon headspace vapour concentrations of the samples to provide a quantitative indication of hydrocarbon vapours present at the time of screening and is dependent on temperature, soil type, sitting time and soil moisture content. PID readings are indicative of hydrocarbon contamination levels for the purpose of field screening and planning. All soil samples were sealed in laboratory prepared jars and bags, labeled and stored in ice packed, insulated coolers.

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 4547-03[1]). All soil samples were obtained with nitrile gloves and placed in sterile glass jars and plastic bags provided by the laboratory.

Soil sampling and field screening were not conducted as part of the LTF assessment.

4.5 LABORATORY ANALYTICAL PROGRAM

Twenty three (23) soil 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 and VOC readings, the following analyses were conducted:

- Twenty three (23) samples were analyzed for various combinations of benzene, toluene, ethylbenzene, xylenes (BTEX), Styrene, Methyl t-Butyl Ether, Volatile Hydrocarbons (VH), Volatile Petroleum Hydrocarbons (VPH), Extractable Petroleum Hydrocarbons (EPH), Light and Heavy Extractable Petroleum Hydrocarbons (LEPH/HEPH); and
- Ten (10) of the twenty three (23) samples as well as one background sample were analyzed for Total Metals using strong acid digestion.

Figures 4 and 5 identify the areas in the Keno district as well as within Elsa Village that samples were collected and submitted to the laboratory. All the remaining soils samples were stored in ice packed insulated coolers.

Laboratory soil sampling was not conducted as part of the LTF assessment.

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

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 one (1) km of a surface water body); and *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.

5.1 SUMMARY OF APPLICABLE SITE CRITERIA

Petroleum Hydrocarbons: *CSR* Schedule 1 and 2 for industrial land use; and

Metals: *CSR* Schedule 1 and 2 for industrial land use;

6.0 FINDINGS OF THE SITE ASSESSMENT

6.1 STRATIGRAPHY

The soil encountered during the hydrocarbon assessment generally consisted of coarse grained silty sand with gravel and cobbles. Visual Inspections of the old workings throughout the Keno Hill Silver District identified a large number of surficial hydrocarbon stains. Photos in Appendix B outline typical surficial stains. Previous Tables 1 and 2 contain summaries of the test pit stratigraphy as well as the visual staining encountered during the assessment. The test pit field logs from the hydrocarbon assessment are attached in Appendix D.

The soil profile observed during LTF assessment generally consisted of coarse grained material. Soil within the test pits predominantly consisted of silty sand with gravel and cobbles. Two test pits excavated within the Valley Tailings Area identified tailings to between 1.6 m and 2.9 m depth below surface grade (bsg). Bedrock was encountered in three test pits ranging from 2.3 m to 2.9 m bsg. The previous Table 2 and the test pit field logs attached in appendix D summarizes the soil stratigraghy identified during the LTF assessment.

6.2 GROUNDWATER

Groundwater was not encountered in any of the test pit locations during the hydrocarbon assessment. The test pit field logs are summarized in the previous table 2 as well as attached in Appendix D

Groundwater was not encountered in any of the test pit locations during the LTF assessment except in one test pit near the CBC radio tower. It was excavated in a disturbed area (previous test pit) and the water looked to be trapped from surface run off. No groundwater was encountered in any of the other test pits during this LTF study indicating that the groundwater table depth is below 3 m. The test pit field logs are summarized in the previous table 2 as well as attached in Appendix D

6.3 FIELD SCREENING RESULTS

The maximum soil headspace vapour concentration identified during the hydrocarbon assessment was 8,854 ppm from the field screening samples collected at Elsa Fuel Storage Area 4 (Test Pit 1 – 0.5 m to 1 m.) Soil headspace vapour concentrations of all other soil samples ranged between 0 ppm and 8,483 ppm.

Table 1 under "*PID Readings*" contains a summary of PID readings from the field investigation. Figures 3, 4 and 5 outlines the areas assessed for hydrocarbons.

Field screening was not conducted as part of the LTF assessment.

6.4 LABORATORY ANALYTICAL RESULTS

The following sections are the analytical results from samples collected during the hydrocarbon assessment. No samples were collected during the LTF assessment.

Complete laboratory analytical result reports are presented in Appendix C.

6.4.1 Soil Hydrocarbon Parameters

Laboratory analytical results for samples submitted for hydrocarbon analysis resulted in parameter exceedances of Volatile Petroleum Hydrocarbons (VPH) as well as Light and Heavy Extractable Petroleum Hydrocarbons (LEPH/HEPH) under the industrial land use of the CSR.

All soil samples analyzed for VPHs exceeded CSR industrial land use criteria except for samples Fuel Storage Area #2 Near Pump, the AST sample near the houses and the Fuel Storage Area #3 Test Pit 1 at 2 m to 2.5 m. All soil samples analyzed for LEPHs exceeded the CSR standards except for samples Waste Oil Storage #3 0 m to 0.3 m, Fuel Storage Area #3 Test Pit 1 at 2 m to 2.5 m, Keno 700 Oil Change Area and Waste Oil Storage #1 at 0.5 m to 1 m. Every soil sample analyzed for HEPHs exceeded the CSR standards except for samples from Ruby 400 Large Stain, Onek Generators Shack, House AST Fill Pipe, Fuel Storage Area #4 at 0.5 m to 1 m, Fuel Storage Area #4 at 2.5 m, AST by houses, Fuel Storage Area #3 Test Pit 1 at 2 m to 2.5 m, Keno 700 Oil Change Area and Waste Oil Storage #1 at 0.5 m to 1 m.

Hydrocarbon parameters did not exceed regulatory standards for all other soil samples analyzed. Hydrocarbon analytical results are summarized in Table 3. Laboratory analysis reports are included in Appendix C.

6.4.2 Special Waste Hydrocarbons

According to Yukon Environment, contaminated soil is considered special waste if it contains total hydrocarbon concentrations of 30,000 ppm or higher based on VPH + LEPH + HEPH. 30,000 ppm represents the typical concentration at which free product forms in soils. Soil is also considered special waste if it contains visible free product; if it contains

ethylbenzene, toluene or xylene in concentrations of 100 ppm or greater; or if it contains any individual hydrocarbon compound at concentrations at or above the solubility limit for that compound in typical soils (the concentration where free product would be expected to form).

Not all the parameters required to determine if a sample was special waste were analyzed. Samples confirmed to be special waste were Bellekeno 625, Husky AST, Husky lube shop, Galkeno 300 garage, Keno 700 generators shack, Waste oil storage #3, Fuel storage area #3, Fuel storage area #4 and Waste oil storage #1.

The special waste results are summarized in Table 3. Laboratory analysis reports are included in Appendix C.

6.4.3 Soil Metal Parameters

Laboratory analytical results for one control soil sample submitted for metal analysis indicated that background metal levels did not exceed CSR criteria, except for arsenic concentrations.

Laboratory analytical results for soil samples from contaminated areas submitted for metal analysis identified parameter exceedances of antimony, arsenic, cadmium, copper, lead, silver and zinc.

All soil samples analyzed for arsenic, cadmium and zinc exceeded CSR standards except for cadmium concentrations in the Silver King Garage sample. Samples from Husky Lube Shop, Ruby 400 Large Oil Stain, Ruby 400 Garage, Keno 700 Generator Shack and from Waste Oil Storage #1 (0 m to 0.5 m) had antimony and lead concentrations that exceeded CSR criteria. Copper concentrations in samples from Husky Lube Shop, Keno 700 Generators Shack and from Waste Oil Storage #1 0 m to 0.5 m exceeded CSR standards. Silver concentrations in samples from Ruby 400 Large Oil Stain, Keno 700 Generators Shack, House AST Fill Pipe and from Waste Oil Storage #1 0 m to 0.5 m also exceeded CSR standards.

Metal analytical results are summarized in Table 4. Laboratory analysis reports are included in Appendix C.

Table 3: Laboratory Analytical Results - Petroleum Hydrocarbons

Parameters	Benzene	Toluene	Ethylbenzene	Total Xylenes (m,p,o)	Styrene	Methyl t-Butyl Ether	VHs6-10	VPHs (VHs6-10 minus BTEX)	LEPHs 10-19	HEPHs 19-32	Special Waste**	Moisture
Units	ug/g	ug/g	ug/g	ug/g	ug/g	ug/g	ug/g	ug/g	ug/g	ug/g		%
Detection Limit	**0.02**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**50**	**50**	**20**	**20**		
Criteria[a]	**10**	**25**	**20**	**50**	**50**	**ns**	**ns**	**200**	**2000**	**5000**		**ns**
Sample												
Bellekeno 625	nt	nt	nt	nt	nt	nt	nt	nt	**7510**	**77100**	**Yes**	1.97
Runer Shop Floor	nt	nt	nt	nt	nt	nt	nt	nt	**2030**	**12800**	nc	7.36
Husky AST	nt	nt	nt	nt	nt	nt	nt	nt	**36300**	**13700**	**Yes**	6.61
Husky Lube Shop	nt	nt	nt	nt	nt	nt	nt	nt	**6860**	**85400**	**Yes**	15.6
Silver King Garage	nt	nt	nt	nt	nt	nt	nt	nt	**6960**	**7770**	nc	9.21
Ruby 400 Large Stain	nt	nt	nt	nt	nt	nt	nt	nt	**1430**	480	nc	9.78
Ruby 400 Garage	nt	nt	nt	nt	nt	nt	nt	nt	**5080**	**22300**	nc	5.72
Ruby 400 Oil pan stain	nt	nt	nt	nt	nt	nt	nt	nt	**15600**	**7220**	nc	16.8
Galkeno 300 Garage	nt	nt	nt	nt	nt	nt	nt	nt	**26300**	**56500**	**Yes**	19.1
Dixie	nt	nt	nt	nt	nt	nt	nt	nt	**3650**	**7390**	nc	7.55
Keno 700 Generators Shack	nt	nt	nt	nt	nt	nt	nt	nt	**6360**	**31800**	**Yes**	9.08
Keno 700 Oil Change Area	nt	nt	nt	nt	nt	nt	nt	nt	510	3250	nc	12.9
Onek Generators Shack	nt	nt	nt	nt	nt	nt	nt	nt	**2290**	813	nc	11.4
Fuel Storage Area #2 Near Pump	0.05	0.47	0.13	1.09	<0.05	<0.05	<50	<50	**22500**	**7190**	No	11.9
House AST Fill Pipe	<0.02	<0.05	<0.05	0.11	<0.05	<0.05	320	**320**	**16100**	1370	No	9.5
AST by Houses	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	80	80	**3930**	216	No	14.8
Waste Oil Storage #3 TP1 0-0.3 m	nt	nt	nt	nt	nt	nt	nt	nt	1610	**42200**	**Yes**	13.9
Fuel Storage Area #3 TP1 0-0.5 m	0.08	1	0.38	7.87	<0.05	<0.05	830	**820**	**48300**	**13400**	**Yes**	11.1
Fuel Storage Area #3 TP1 2-2.5 m	0.08	0.1	0.07	0.24	<0.05	<0.05	<50	<50	312	603	No	25.7
Fuel Storage Area #4 TP1 0.5-1 m	<0.02	<0.05	<0.05	0.32	<0.05	<0.05	3130	**3130**	**41800**	3580	**Yes**	28.3
Fuel Storage Area #4 TP1 2.5 m	<0.02	<0.05	<0.05	2.95	<0.05	<0.05	1950	**1940**	**16900**	1050	No	8.07
Waste Oil Storage #1 TP1 0-0.5 m	nt	nt	nt	nt	nt	nt	nt	nt	**2300**	**44300**	**Yes**	21
Waste Oil Storage #1 TP1 0.5-1 m	nt	nt	nt	nt	nt	nt	nt	nt	<20	<20	nc	11.3

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

*** 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.**

**** VPH + LEPH + HEPH greater then 30,000 ppm is considered Special Waste**

Peach = Value exceeds *Contaminated Site Regulations*

ns = not specified

nt = not tested

Table 4 - Laboratory Analytical Results - Metals

Parameters	Boron	Mercury	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Molybdenum	Nickel	Selenium	Silver	Thallium	Tin	Uranium	Vanadium	Zinc	Soil pH
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	pH
Detection Limit	**0.1**	**0.01**	**0.2**	**0.2**	**1**	**0.1**	**0.01**	**0.5**	**0.1**	**1**	**0.1**	**1**	**0.5**	**0.3**	**0.1**	**0.05**	**1**	**0.5**	**0.1**	**1**	
Criteria[a]	**ns**	**150**	**40**	**20**	**2000**	**8**	**2-150**[b]	**60**	**300**	**250**	**2000**	**40**	**500**	**10**	**40**	**ns**	**300**	**ns**	**ns**	**300**[b]	
Sample																					
Control	<0.2	0.15	4.8	**107**	78	0.2	2.08	15.5	5.1	38	788	2.0	21.2	0.8	18.5	0.6	3.0	0.7	18	192	8.1
Bellekeno 625	5.0	0.06	5.2	**118**	134	0.4	**7.56**	31.5	7.6	51	878	5.0	23.8	0.8	31.8	0.3	3.0	1.3	26.7	**1010**	6.7
Silver King Garage	3.1	0.02	3.9	**67**	241	0.2	1.93	14.7	7.0	35	296	2.0	22.7	1.1	8.7	0.19	4.0	0.6	27.1	**550**	7.6
Husky Lube Shop	0.5	0.16	**136**	**245**	433	0.2	**78.4**	19.4	10.7	**266**	**10900**	2.0	24.7	1.5	43	1.41	4.0	0.9	29.3	**7000**	6.2
Ruby 400 Large Stain	0.2	0.32	**103**	**317**	34	0.3	**138**	6.7	4.3	227	**13700**	2.0	21.8	4.1	**58.4**	0.39	3.0	1.4	4.6	**10100**	7.7
Ruby 400 Garage	0.3	0.22	**51.5**	**324**	27	0.2	**82.1**	6.6	5.2	73	**4180**	1.0	23.3	2.1	35	0.27	6.0	1.0	5.1	**6300**	6.2
Galkeno 300 Garage	1.1	0.08	7.4	**249**	118	0.4	**28.6**	23.6	13.8	58	1630	4.0	42	1.2	23.3	0.12	3.0	1.2	24.6	**2160**	6.0
Keno 700 Generators Shack	0.4	0.94	**171**	**1700**	251	0.2	**174**	39.6	54.6	**481**	**24900**	5.0	45	1.2	**237**	0.25	8.0	1.1	15.5	**16700**	nt
House AST Fill Pipe	0.3	0.08	12.3	**167**	104	0.4	**50.2**	19.6	18.7	79	1670	3.0	54.3	2.1	**77.5**	0.46	2.0	1.0	15.3	**3900**	nt
Fuel Storage Area #4 TP1 0.5-1 m	0.9	0.06	4.2	**55.1**	324	0.5	**29.5**	21.9	23.8	87	343	2.0	62	1.2	21.2	0.82	2.0	2.0	37.5	**2150**	nt
Waste Oil Storage #1 TP1 0-0.5 m	0.5	0.35	**110**	**322**	147	0.3	**57.7**	14	6.0	**293**	**13000**	2.0	18.2	1.4	**239**	1.77	7.0	1.8	19.2	**4330**	nt

[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*

*** 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

6.5 ESTIMATED VOLUME OF CONTAMINATED SOIL

A preliminary volume of impacted soil within the Keno Hill Silver District is estimated to be approximately 6,950 m^3. Table 1 outlines the areas as well as the approximate dimensions of the impact. A 25% contingency was applied to the initial value to allow for areas not identified in this assessment as well as for unexpected increase in depths of contamination during excavating. Note: confirmatory testing is required after the impacted soils are removed. If the laboratory results continue to exceed CSR criteria, the volume of impacted soil could significantly increase.

6.6 POTENTIAL LTF LOCATIONS

Test pits in eight potential LTF locations were excavated during the field inspections. As mentioned in Section 6.2, groundwater was not encountered in any of the locations except in one test pit near the CBC radio tower. It was excavated in a disturbed area (previous test pit) and the water looked to be trapped from surface run off. The test pits generally consisted of a coarse grained material. An approved liner will be used during the construction of the LTF to mitigate the permeable coarse grained material. Table 2 summaries the potential LTF locations as well as the test pits that were excavated during the field inspections. The specific approved location(s) will be selected once discussions are completed with local government. The construction and operation of an LTF will follow guidelines as well as regulations, limitations, permits and specific considerations as prescribed by the Government of Yukon (GY). Optimal locations due to the proximity of the majority of contamination include: the old Elsa school yard, the framing/carpentry yard, near bunkhouse 1 and near Fuel Storage Areas 3 and 4. Figure 3 identifies the optimal areas for an LTF.

7.0 CONCLUSIONS

In August and September/October 2008, ACG conducted hydrocarbon and LTF field assessments throughout the Keno Hill Silver District. The assessments consisted of a visual inspection and surface soil sampling program of all the potential hydrocarbon impacted areas identified in the previous reports as well as all any new disturbed areas that were safely accessible. Test pits were excavated to 3 m in eight potential LTF locations during the field program as part of the LTF site selection process.

Soils were logged and field-screened for potential contamination. Based on field observations and VOC screening results, twenty three (23) soil samples were submitted for laboratory hydrocarbon analyses and eleven (11) samples were submitted for metal analyses to Bodycote Testing Group, Surrey, British Columbia. Refer to section 6.4 of this report as well as Tables 3 and 4 for a summary of the results.

All the objectives and assessment tasks outlined in the work plan were completed. Previous data was reviewed, complied and verified. A hydrocarbon field program was conducted and soil samples were submitted to an approved laboratory for confirmation analysis. The volume of impacted soil in the Keno Hill Silver District is estimated to be 6,950 m^3.

Eight potential LTF locations were assessed and identified during the LTF field inspection. Five of the eight LTF locations are optimal due to the proximity of the majority of contamination within the district, including: the old Elsa school yard, the framing/carpentry yard, near bunkhouse 1 and near fuel storage areas 3 and 4. An approved liner will be used during the construction of the LTF to mitigate the permeable coarse grained material. The construction and operation of an LTF will follow guidelines as well as regulations, limitations, permits and specific considerations as prescribed by the Government of Yukon (GY).

8.0 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.

9.0 REPORT LIMITATIONS

This report was prepared for the exclusive use of Elsa Reclamation and Development Company, and is based on data and information collected during the environmental site assessment (ESA) sampling events completed in August and September/October 2008. 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

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Appendix A

ACG Hydrocarbon Contaminated Soil Summary, April 2007

■ **Access Mining Consultants Ltd.**
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Memorandum

To: File January 11, 2007

CC:

From: Corey Fernets, C.E.T., Access Consulting Group

Re: Hydrocarbon Contaminated Soil

The following is a descriptive summary of the extent of the hydrocarbon contamination documentation to date. All known UKHM sites were inspected with specific attention paid to any evidence of hydrocarbon contamination of the soil, or any evidence that hydrocarbons were stored in the vicinity. 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 workings 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 Fernets, C.E.T.

Hydrocarbon-Contaminated Soils

Access Consulting observed and documented areas where evidence of hydro-carbon contamination was visible while conducting the inspections of the remaining sites with SRK Consulting. Areas of concern were compiled and correlated with sites documented the previous year and with areas and storage facilities reported in the March 2000 Environmental Baseline Assessment performed by Public Works. This information was sorted into a Hydrocarbon Contamination Inventory list which included Site Name and Location, Description of Contamination, whether samples were taken, and a documented History of Spills if applicable. Note that only UKHM sites with suspect contamination or evidence of previous hydrocarbon storage were included in the table.

Evidence of hydrocarbon contamination at Caribou (Segsworth) site (later research determined that this site was not on UKHM claim package).

UKHM Claim Package Hydrocarbon Contamination Inventory - September 2006

Assigned Site No.	Site Name	Location	Hazard Identified By	Desription of Contamination	Samples Taken
1	Silver King	Diesel fuel was likely stored near the 100 Level Adit.	PWGSC Baseline Assessment	No visible signs of contamination	None
		Compressor building	SRK 2005 Site Inspection	Hydrocarbon staining on crushed gravel floor	None
		Backfill pipe	PWGSC Baseline Assessment	Small and shallow stain from drilling lubricant or hydraulic oil; <0.1m	None
2	Husky & Husky SW	Above ground storage tank located behind the boilerhouse	SRK 2005 Site Inspection	Soil staining evident around perimeter of 9400 litre tank; heavy staining at the valves; rock berm extends around the perimeter of the AST	None
		Two AST's located in the northeast corner inside the boilerhouse	PWGSC Baseline Assessment	Staining noted on the concrete floor on the exterior of the building and the rear addition; no staining was noted on the surrounding soils.	None
		One fuel drum laying on its side, leaking from bung.	PWGSC Baseline Assessment	Minor soil staining	None
		Small storage shed adjacent to west wall of boiler house.	PWGSC Baseline Assessment	Interior heavily stained with tar and rock drill oil; minor staining at the entrance.	None
		Three drums were located at the rear of the smaller storage shed.	PWGSC Baseline Assessment	Minor surficial staining surrounding the drums.	None
		One aboveground storage tank located on the northwest corner of the hoist house on Husky SW site	PWGSC Baseline Assessment	No visible signs of contamination	None
		Two 200L drums labelled as torque fluid at Husky SW site	PWGSC Baseline Assessment	Area around horizontal drum stained. (approx. 20m3)	None
		One fuel drum labelled as motor oil Chevron 200L at Husky SW site	PWGSC Baseline Assessment	Some staining around fuel drum (approx. area = 8m2) indicating that is has or is leaking	None
3	Elsa	Fuel Storage area at backfill site.	PWGSC Baseline Assessment	No visible signs of contamination	None
4	Dixie	Inside and along north wall of garage	SRK 2005 Site Inspection	Staining of soil present (approx. 10m2) appears to be from heavy machinery maintenance.	None
6	Bermingham & Ruby (Arctic & Mastiff)	Northwest corner of the receiving tank behind the garage on the Ruby site.	PWGSC Baseline Assessment	Some leakage has occurred and the soils surrounding the tank have been stained.	Yes
		Ruby Level 400 Adit	PWGSC Baseline Assessment	Interior of the adit stained with hydrocarbons.	None
7	No Cash	Exterior and interior of garage.	PWGSC Baseline Assessment	Spills present on both the concrete floor and immediately outside of bay doors; associated with equipment inside the boiler room. Staining appears to be superficial.	None
9	Hector Calumet	Three metal oil barrels present adjacent to the conveyor section of the facility, two empty and one full of oil & water.	PWGSC Baseline Assessment	A small stain (approx. 0.5m2) is present on the ground near the barrels.	None
11	Galkeno 300	Adjacent to the north wall of the quonset warehouse.	PWGSC Baseline Assessment	Staining (approx. 0.5m3) visible from inside between the concrete and the building frame.	None
		Adjacent to the west wall of the quonset warehouse.	PWGSC Baseline Assessment	Staining (approx. 0.6m3) visible from an above ground storage tank.	None
12	Galkeno 900	Storage Building	PWGSC Baseline Assessment	1m2 oil stain in the dirt	None
19	Onek	East of Building 19E	PWGSC Baseline Assessment	Oil staining present	None
		East of Building 19F	PWGSC Baseline Assessment	Oil staining present	None
		East of buildings 19A and 19C and to the south of building 19D.	SRK 2005 Site Inspection	Seven stains were identified; approx area = 20m2	None
		North and south of Building 19G.	PWGSC Baseline Assessment	Five large waste oil stains were present; approx. area = 30m2	None
		Under POL shed at upper camp.	SRK 2005 Site Inspection	Extensive staining attributable to spillage from various hydrocarbon based liquids stored in the building; approx. area = 6m2	None
		Unlined sumps in garage.	PWGSC Baseline Assessment	Heavily stained.	Yes - no PCB's detected
20	Klondike-Keno	Three heating oil drums on wood platform at the southern area of site	ACG 2006 Site Inspection	No visible signs of contamination	None

UKHM Claim Package Hydrocarbon Contamination Inventory - September 2006

Assigned Site No.	Site Name	Location	Hazard Identified By	Desription of Contamination	Samples Taken
21	Sadie Ladue	Roughly 10m east of Pit #1	PWGSC Baseline Assessment	A fuel or oil stain (< 5m2) was present which penetrated less than 5cm into the broken waste rock.	None
		Site for temporary storage of Jet B fuel in 1996	PWGSC Baseline Assessment	Possible contamination suspected	Yes
22	Bellekeno	2000L storage tank inside compressor house at 625 Level	PWGSC Baseline Assessment	A large area of stained soil (approx.125m2) was present on the floor, at the entrance, and behind compressor house.	None
		AST1 is a 20,000L single wall aboveground steel diesel tank behind the compressor house at the 625 Level.	PWGSC Baseline Assessment	No visible signs of contamination	None
		AST2 is a 2,000L single wall aboveground steel gasoline tank inside the compressor house at the 625 Level.	PWGSC Baseline Assessment	No visible signs of contamination	None
		AST3 is a 3,000L single wall aboveground, two compartment steel gasoline/diesel tank inside the compressor house at the 625 Level. .	PWGSC Baseline Assessment	There is a zone of staining adjacent to the tank likely from spilling during fuel transfer.	None
		Between the dump shed, lunchroom, and adit building at 625 Level	PWGSC Baseline Assessment	Minor surface soil staining.	None
		Mobile fuel storage tank at the 200 Level	PWGSC Baseline Assessment	Surface soil staining (approx. 9m2) adjacent to tank.	None
		Centre of the upper dump pad at the 200 Level.	PWGSC Baseline Assessment	Minor surface staining was present.	None
		Backfill pad	PWGSC Baseline Assessment	Soil contamination observed from the drilling operation. (approx.7.2m3)	Yes
25	Black Cap, Shepherd & SQ Adit	Ten drums located at the east side of Waste Rock Pile WR-01	PWGSC Baseline Assessment	Waste oil stain near the 10 drum pile. (approx. 0.2m3)	Yes
		Shop	PWGSC Baseline Assessment	A number of stains were present inside on both the wooden and the gravel floors, and one small stain present outside of bay doors.	Yes
28	Shamrock	Generator building	PWGSC Baseline Assessment	Soil within the generator building was stained. (approx. area = 4m2)	None
		Main building site	PWGSC Baseline Assessment	Two small hydrocarbon stains present on east side. (approx. area <1m2)	None
32	Keno 700	Generator Shack and Oil storage building	PWGSC Baseline Assessment	Hydrocarbon staining on floor leading outside to the southeast.	Yes
		Mining office.	PWGSC Baseline Assessment	Hydrocarbon staining on wooden floor.	None
		Between the mining office and the boiler building	PWGSC Baseline Assessment	Large hydrocarbon stain on the slope.	Yes
		Fuel tank situated between ambulance shed and generator shack	PWGSC Baseline Assessment	No visible signs of contamination	None
		Fallen transformer site at 200 Level	PWGSC Baseline Assessment	Suspected contamination	Yes
		Below landfill site	PWGSC Baseline Assessment	Suspected contamination	Yes
		Garage floor	PWGSC Baseline Assessment	Suspected contamination	Yes
		Erosion channel	PWGSC Baseline Assessment	Suspected contamination	Yes
		Below engine drop/oil change platform	PWGSC Baseline Assessment	Suspected contamination	Yes
		Drainage channel to the northeast	PWGSC Baseline Assessment	Suspected contamination	Yes

UKHM Claim Package Hydrocarbon Contamination Inventory - September 2006

Assigned Site No.	Site Name	Location	Hazard Identified By	Desription of Contamination	Samples Taken
38	Fox	Four 45 gallon drums found in Trench #1	ACG 2006 Site Inspection	No visible signs of contamination	None
40	Divide	Five empty drums present near wood frame building.	ACG 2006 Site Inspection	No visible signs of contamination	None
		One barrel in middle of "A" Zone trenches	ACG 2006 Site Inspection	Half full of fluid; no signs of soil contamination	None
		One barrel in trench B-9	ACG 2006 Site Inspection	Half full of fluid; no signs of soil contamination	None
73	Gambler	Thirteen empty 205 litre steel barrels were located on the waste rock below the lower adit.	ACG 2006 Site Inspection	No visible signs of contamination	None
76	Townsite Mine	Office/Workshop	PWGSC Baseline Assessment	Minor staining on floor.	None
78	Elsa Village	Fuel Storage Area #1: Sawmill area, north of Hwy #2.	PWGSC Baseline Assessment	No visible signs of contamination	None
		Fuel Storage Area #2: Diesel Service Station south of skating rink	PWGSC Baseline Assessment	Fuel staining noted on the down side of the bank and in shallow test pit immediately downgradient of the dispenser	None
		Fuel Storage Area #3: Oil Storage Tank near the rescue building on the northeast side	PWGSC Baseline Assessment	Fuel stains are present around the refueling shack	None
		Fuel Storage Area #4: Diesel and Stove Oil storage tanks across from fire hall	PWGSC Baseline Assessment	Small patch of stained soil bottom of diesel tank drain valve.	None
		Fuel Storage Area #5: AST near main doors of main shop	PWGSC Baseline Assessment	Minor spillage noted around tank.	None
		Fuel Storage Area #6: Underground UST's at school.	PWGSC Baseline Assessment	Minor stains observed near gymnasium building.	None
		Fuel Storage Area #7: Gas & Diesel AST's on north side of flotation mill.	PWGSC Baseline Assessment	No obvious staining	None
		Fuel Storage Area #8: Generator AST located next to Northwestel hut.	PWGSC Baseline Assessment	No obvious staining	None
		Waste Oil Storage Area #1; bottom of hill below flotation mill	PWGSC Baseline Assessment	Approx. 500m3 of oil soaked gravel present. No containment berm present.	None
		Waste Oil Storage Area #2; behind storage shed across the road from Aurora Heights	PWGSC Baseline Assessment	Seven pails of waste oil present; one has overflowed onto concrete pad.	None
		Waste Oil Storage Area #3; Oil change pad across from #1 Bunkhouse	PWGSC Baseline Assessment	Waste oil may have been dumped on the ground underneath the ramp.	None
		Out of service transformer storage near new bunkhouse.	PWGSC Baseline Assessment	No visible signs of contamination	Yes
		Out of service transformer storage on northwest side of road leading into the saw mill area.	PWGSC Baseline Assessment	No visible signs of contamination	Yes
		Flotation Mill/Crusher House	PWGSC Baseline Assessment	Concrete floor is heavily stained with spilled oil or fuel.	None
			PWGSC Baseline Assessment	Heavy oil staining (48m2) visible outside and immediately north of room with 50,000 litre readgent vessel and diesel powered pumps; extends onto a vehicle turnaround area.	None
		Machine Shop	PWGSC Baseline Assessment	A number of small spills on the concrete floors near the doors.	None
79	Elsa Tailings	Twenty empty barrels located in the "boneyard"	PWGSC Baseline Assessment	No visible signs of contamination	None
81	Mackeno	Immediately north of weigh scale foundation.	PWGSC Baseline Assessment	Six small surface stains with a total area of 1m3; not present below 0.10m below grade.	None

Appendix B:

Selected Photographs

Photo #1: Elsa fuel storage area #2

Photo #2: Waste oil storage area #3

Photo #3: AST at end of houses

Photo #4: Fill pipe for AST at end of houses

Photo #5: Surface stain near fuel storage area #1

Photo #6: A drum full of unknown liquid in sawmill yard

Photo #7: Test pit for potential LTF location in sawmill yard

Photo #8: Fuel storage area #4

Photo #9: Soil from test pit near fuel storage area #4

Photo #10: Surficial staining depth at Keno 700

Photo #11: AST and surface staining at Husky

Photo #12: Typical surface staining identified throughout the district

Photo #13: Fuel storage area #3

Photo #14: Test pit at fuel storage area #3

Photo #15: Interior floor staining at Dixie

Photo #16: Concrete floor staining at Ruby 400

Photo #17: Surface staining with old oil filter near old dump at Bermingham pit

Photo #18: Access Road into Runer

Photo #19: Surface staining and empty drum on access road to Runer

Photo #20: Inside Runer building

Photo #21: Outside generator building at Bellekeno 625

Photo #22: Oil stain at Ruby 400

Photo #23: Test pit excavation for potential LTF near CBC tower

Photo #24: Soil profile of test pit near CBC tower

Appendix C:

Laboratory Analytical Reports

NORWEST LABS

LOT # 640016

Control Number E 01695

Environmental Sample Information Sheet

NOTE Proper completion of this form is required in order to proceed with analysis

See reverse for your nearest Norwest location and proper sampling protocol

Billing Address:	**Report To:** ☐	**Copy of Report To:**	**Copy of invoice:** ☐
Company: Access Consulting Group		Company:	Mail invoice to this address for approval ☐
Address: #3 151 Industrial Rd Whitehorse	QA/QC Report ☐	Address:	
Attention: Kurt Neumberz	Report Result:	Attention: Paul Inglis	Report Result:
Phone: 867-668-6463	Fax ☐	Phone:	Fax ☐
Fax: 867-667-6680	Mail ☐	Fax:	Mail ☐
Cell:	Courier ☐	Cell:	Courier ☐
e-mail: kurt@accessconsulting.ca	e-mail ☒	e-mail: paul@accessconsulting.ca	e-mail ☒

Information to be included on Report and Invoice

Project ID: Keno Hydrocarbon Contamination

Project Name: Studies

Project Location:

Legal Location: Keno Valley

PO#:

Proj. Acct. Code:

Agreement ID: 76352

RUSH

Please contact the laboratory to confirm rush dates and times before submitting samples.

Upon filling out this section, client accepts that surcharges will be attached to this analysis

Required on: all analyses **or** as indicated ☐ **or** ☐

Date Required: _____

Signature: _____

Norwest Authorization: _____

Sample Custody (Please Print)

Sampled by: K. Neumberz Date 26-29 Aug

Company ACG Signature

Relinquished by: P. Inglis

Company ACG Date 29 Aug

Waybill number:

Received by: [illegible] 6C

Company SEP 02 2003 Date

Processed by: [illegible] 9:45

Norwest Labs Date

Special Instructions / Comments

	Sample Identification	Location	Depth	Date / Time Sampled	Matrix	Sampling Method	Number of Containers	ICP Metals	EPH	Enter tests above (✓ relevant samples below)
1	Bellekeno 625		~~[illegible]~~	10:55 29Aug	Soil	Grab	2	✓	✓	
2	Runner Shop Floor		—	9:40 29Aug	Soil	Grab	1		✓	
3	Husky AST		—	9:40 28Aug	Soil	Grab	1		✓	
4	Silver King GARAGE		—	8:00 28Aug	Soil	Grab	2	✓	✓	
5	Husky LUBE SHOP		—	9:45 28Aug	Soil	Grab	2	✓	✓	
6	Ruby 400 Large Stain		—	14:50 27Aug	Soil	Grab	2	✓	✓	
7	Ruby 400 Garage		—	14:45 27Aug	Soil	Grab	2	✓	✓	
8	Galkeno 300 Garage		—	17:45 27Aug	Soil	Grab	2	✓	✓	
9	Dixie		—	13:10 27Aug	Soil	Grab	1		✓	
10	Ruby 400 Oil pan stain		—	14:50 27Aug	Soil	Grab	1		✓	
11			—							
12			—							
13			—							
14			—							

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

Accredited by the Standards Council of Canada for specific tests

Bodycote TESTING GROUP

Report Transmission Cover Page

Bill To:	Access Mining Consultants Ltd.	Project:	
Report To:	Access Mining Consultants Ltd.	ID:	Keno Hydrocarbon
	#3 Calcite Business Centre	Name:	
	151 Industrial Road	Location:	
	Whitehorse, YT, Canada	LSD:	Keno Valley
	Y1A 2V3	P.O.:	
Attn:	Kurt Neunherz	Acct code:	
Sampled By:	K.Neunherz		
Company:	ACG		

Lot ID:	**640016**
Approval Status:	Approved
Invoice Frequency:	by Lot
COD Status:	
Control Number:	E 01695
Date Received:	Sep 2, 2008
Date Reported:	Sep 8, 2008
Report Number:	1146664

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

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

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:

Reports associated with this Lot

Id/Format/Report Date	Id/Format/Report Date	Id/Format/Report Date

Bodycote TESTING GROUP

Sample Custody

Bill To:	Access Mining Consultants Ltd.	Project:	
Report To:	Access Mining Consultants Ltd.	ID:	Keno Hydrocarbon
	#3 Calcite Business Centre	Name:	
	151 Industrial Road	Location:	
	Whitehorse, YT, Canada	LSD:	Keno Valley
	Y1A 2V3	P.O.:	
Attn:	Kurt Neunherz	Acct code:	
Sampled By:	K.Neunherz		
Company:	ACG		

Lot ID:	**640016**
Control Number:	E 01695
Date Received:	Sep 2, 2008
Date Reported:	Sep 8, 2008
Report Number:	1146664

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 _____

Bodycote TESTING GROUP

Analytical Report

Bill To:	Access Mining Consultants Ltd.	Project:	
Report To:	Access Mining Consultants Ltd.	ID:	Keno Hydrocarbon
	#3 Calcite Business Centre	Name:	
	151 Industrial Road	Location:	
	Whitehorse, YT, Canada	LSD:	Keno Valley
	Y1A 2V3	P.O.:	
Attn:	Kurt Neunherz	Acct code:	
Sampled By:	K.Neunherz		
Company:	ACG		

Lot ID:	**640016**
Control Number:	E 01695
Date Received:	Sep 2, 2008
Date Reported:	Sep 8, 2008
Report Number:	1146664

		Reference Number	640016-1	640016-2	640016-3
		Sample Date	Aug 29, 2008	Aug 29, 2008	Aug 28, 2008
		Sample Location			
		Sample Description	Bellekeno 625	Runer Shop Floor	Husky AST
		Matrix	Soil	Soil	Soil
Analyte		**Units**	**Results**	**Results**	**Results**	Nominal Detection Limit
Extractable Petroleum Hydrocarbons - Soil						
EPHs10-19	Dry Weight	ug/g	7510	2030	36300	20
EPHs19-32	Dry Weight	ug/g	77100	12800	13700	20
Moisture						
Moisture	Soil % Moisture	%	1.97	7.36	6.61	

Bodycote TESTING GROUP

Analytical Report

Bill To:	Access Mining Consultants Ltd.	Project:	
Report To:	Access Mining Consultants Ltd.	ID:	Keno Hydrocarbon
	#3 Calcite Business Centre	Name:	
	151 Industrial Road	Location:	
	Whitehorse, YT, Canada	LSD:	Keno Valley
	Y1A 2V3	P.O.:	
Attn:	Kurt Neunherz	Acct code:	
Sampled By:	K.Neunherz		
Company:	ACG		

Lot ID:	**640016**
Control Number:	E 01695
Date Received:	Sep 2, 2008
Date Reported:	Sep 8, 2008
Report Number:	1146664

		Reference Number	640016-1	640016-4	640016-5
		Sample Date	Aug 29, 2008	Aug 28, 2008	Aug 28, 2008
		Sample Location			
		Sample Description	Bellekeno 625	Silver King Garage	Husky Lube Shop
		Matrix	Soil	Soil	Soil
Analyte		**Units**	**Results**	**Results**	**Results**	Nominal Detection Limit
Hot Water Soluble						
Boron	Water Soluble	mg/kg	5.0	3.1	0.5	0.1
Metals Strong Acid Digestion						
Mercury	Strong Acid Extractable	mg/kg	0.06	0.02	0.16	0.01
Antimony	Strong Acid Extractable	mg/kg	5.2	3.9	136	0.2
Arsenic	Strong Acid Extractable	mg/kg	118	67.0	245	0.2
Barium	Strong Acid Extractable	mg/kg	134	241	433	1
Beryllium	Strong Acid Extractable	mg/kg	0.4	0.2	0.2	0.1
Cadmium	Strong Acid Extractable	mg/kg	7.56	1.93	78.4	0.01
Chromium	Strong Acid Extractable	mg/kg	31.5	14.7	19.4	0.5
Cobalt	Strong Acid Extractable	mg/kg	7.6	7.0	10.7	0.1
Copper	Strong Acid Extractable	mg/kg	51	35	266	1
Lead	Strong Acid Extractable	mg/kg	878	296	10900	0.1
Molybdenum	Strong Acid Extractable	mg/kg	5	2	2	1
Nickel	Strong Acid Extractable	mg/kg	23.8	22.7	24.7	0.5
Selenium	Strong Acid Extractable	mg/kg	0.8	1.1	1.5	0.3
Silver	Strong Acid Extractable	mg/kg	31.8	8.7	43.0	0.1
Thallium	Strong Acid Extractable	mg/kg	0.30	0.19	1.41	0.05
Tin	Strong Acid Extractable	mg/kg	3	4	4	1
Uranium	Strong Acid Extractable	mg/kg	1.3	0.6	0.9	0.5
Vanadium	Strong Acid Extractable	mg/kg	26.7	27.1	29.3	0.1
Zinc	Strong Acid Extractable	mg/kg	1010	550	7000	1

Bodycote TESTING GROUP

Analytical Report

Bill To:	Access Mining Consultants Ltd.	Project:	
Report To:	Access Mining Consultants Ltd.	ID:	Keno Hydrocarbon
	#3 Calcite Business Centre	Name:	
	151 Industrial Road	Location:	
	Whitehorse, YT, Canada	LSD:	Keno Valley
	Y1A 2V3	P.O.:	
Attn:	Kurt Neunherz	Acct code:	
Sampled By:	K.Neunherz		
Company:	ACG		

Lot ID:	**640016**
Control Number:	E 01695
Date Received:	Sep 2, 2008
Date Reported:	Sep 8, 2008
Report Number:	1146664

		Reference Number	640016-4	640016-5	640016-6
		Sample Date	Aug 28, 2008	Aug 28, 2008	Aug 27, 2008
		Sample Location			
		Sample Description	Silver King Garage	Husky Lube Shop	Ruby 400 Large Stain
		Matrix	Soil	Soil	Soil
Analyte		**Units**	**Results**	**Results**	**Results**	Nominal Detection Limit
Extractable Petroleum Hydrocarbons - Soil						
EPHs10-19	Dry Weight	ug/g	6960	6860	1430	20
EPHs19-32	Dry Weight	ug/g	7770	85400	480	20
Moisture						
Moisture	Soil % Moisture	%	9.21	15.60	9.78	

Bodycote TESTING GROUP

Analytical Report

Bill To:	Access Mining Consultants Ltd.	Project:	
Report To:	Access Mining Consultants Ltd.	ID:	Keno Hydrocarbon
	#3 Calcite Business Centre	Name:	
	151 Industrial Road	Location:	
	Whitehorse, YT, Canada	LSD:	Keno Valley
	Y1A 2V3	P.O.:	
Attn:	Kurt Neunherz	Acct code:	
Sampled By:	K.Neunherz		
Company:	ACG		

Lot ID:	**640016**
Control Number:	E 01695
Date Received:	Sep 2, 2008
Date Reported:	Sep 8, 2008
Report Number:	1146664

Reference Number		640016-6	640016-7	640016-8
Sample Date		Aug 27, 2008	Aug 27, 2008	Aug 27, 2008
Sample Location				
Sample Description		Ruby 400 Large Stain	Ruby 400 Garage	Galkeno 300 Garage
Matrix		Soil	Soil	Soil

Analyte		**Units**	**Results**	**Results**	**Results**	Nominal Detection Limit
Hot Water Soluble						
Boron	Water Soluble	mg/kg	0.2	0.3	1.1	0.1
Metals Strong Acid Digestion						
Mercury	Strong Acid Extractable	mg/kg	0.32	0.22	0.08	0.01
Antimony	Strong Acid Extractable	mg/kg	103	51.5	7.4	0.2
Arsenic	Strong Acid Extractable	mg/kg	317	324	249	0.2
Barium	Strong Acid Extractable	mg/kg	34	27	118	1
Beryllium	Strong Acid Extractable	mg/kg	0.3	0.2	0.4	0.1
Cadmium	Strong Acid Extractable	mg/kg	138	82.1	28.6	0.01
Chromium	Strong Acid Extractable	mg/kg	6.7	6.6	23.6	0.5
Cobalt	Strong Acid Extractable	mg/kg	4.3	5.2	13.8	0.1
Copper	Strong Acid Extractable	mg/kg	227	73	58	1
Lead	Strong Acid Extractable	mg/kg	13700	4180	1630	0.1
Molybdenum	Strong Acid Extractable	mg/kg	2	1	4	1
Nickel	Strong Acid Extractable	mg/kg	21.8	23.3	42.0	0.5
Selenium	Strong Acid Extractable	mg/kg	4.1	2.1	1.2	0.3
Silver	Strong Acid Extractable	mg/kg	58.4	35.0	23.3	0.1
Thallium	Strong Acid Extractable	mg/kg	0.39	0.27	0.12	0.05
Tin	Strong Acid Extractable	mg/kg	3	6	3	1
Uranium	Strong Acid Extractable	mg/kg	1.4	1.0	1.2	0.5
Vanadium	Strong Acid Extractable	mg/kg	4.6	5.1	24.6	0.1
Zinc	Strong Acid Extractable	mg/kg	10100	6300	2160	1

Bodycote TESTING GROUP

Analytical Report

Bill To:	Access Mining Consultants Ltd.	Project:	
Report To:	Access Mining Consultants Ltd.	ID:	Keno Hydrocarbon
	#3 Calcite Business Centre	Name:	
	151 Industrial Road	Location:	
	Whitehorse, YT, Canada	LSD:	Keno Valley
	Y1A 2V3	P.O.:	
Attn:	Kurt Neunherz	Acct code:	
Sampled By:	K.Neunherz		
Company:	ACG		

Lot ID:	**640016**
Control Number:	E 01695
Date Received:	Sep 2, 2008
Date Reported:	Sep 8, 2008
Report Number:	1146664

		Reference Number	640016-7	640016-8	640016-9
		Sample Date	Aug 27, 2008	Aug 27, 2008	Aug 27, 2008
		Sample Location			
		Sample Description	Ruby 400 Garage	Galkeno 300 Garage	Dixie
		Matrix	Soil	Soil	Soil
Analyte		**Units**	**Results**	**Results**	**Results**	Nominal Detection Limit
Extractable Petroleum Hydrocarbons - Soil						
EPHs10-19	Dry Weight	ug/g	5080	26300	3650	20
EPHs19-32	Dry Weight	ug/g	22300	56500	7390	20
Moisture						
Moisture	Soil % Moisture	%	5.72	19.10	7.55	

Bodycote TESTING GROUP

Analytical Report

Bill To:	Access Mining Consultants Ltd.	Project:	
Report To:	Access Mining Consultants Ltd.	ID:	Keno Hydrocarbon
	#3 Calcite Business Centre	Name:	
	151 Industrial Road	Location:	
	Whitehorse, YT, Canada	LSD:	Keno Valley
	Y1A 2V3	P.O.:	
Attn:	Kurt Neunherz	Acct code:	
Sampled By:	K.Neunherz		
Company:	ACG		

Lot ID:	**640016**
Control Number:	E 01695
Date Received:	Sep 2, 2008
Date Reported:	Sep 8, 2008
Report Number:	1146664

Reference Number	640016-10
Sample Date	Aug 27, 2008
Sample Location	
Sample Description	Ruby 400 Oil pan stain
Matrix	Soil

Analyte		Units	Results	Results	Results	Nominal Detection Limit
Extractable Petroleum Hydrocarbons - Soil						
EPHs10-19	Dry Weight	ug/g	15600			20
EPHs19-32	Dry Weight	ug/g	7220			20
Moisture						
Moisture	Soil % Moisture	%	16.80			

Approved by:

Andrew Garrard, BSc
Operations Manager

Bodycote TESTING GROUP

Quality Control

Bill To:	Access Mining Consultants Ltd.	Project:	
Report To:	Access Mining Consultants Ltd.	ID:	Keno Hydrocarbon
	#3 Calcite Business Centre	Name:	
	151 Industrial Road	Location:	
	Whitehorse, YT, Canada	LSD:	Keno Valley
	Y1A 2V3	P.O.:	
Attn:	Kurt Neunherz	Acct code:	
Sampled By:	K.Neunherz		
Company:	ACG		

Lot ID:	**640016**
Control Number:	E 01695
Date Received:	Sep 2, 2008
Date Reported:	Sep 8, 2008
Report Number:	1146664

Hot Water Soluble

Blanks	Units	Measured	Mean	Lower Limit	Upper Limit	Passed QC
Boron	mg/kg	<0.2	0.0	-0.1	0.2	yes
Material Used:	Method Blank					
Date Acquired:	September 06, 2008					
Acquired By:	Jennifer Persson					

Replicates	Units	Replicate1	Replicate2	% RSD Criteria	Absolute Criteria	Passed QC
Boron	mg/kg	5.0	4.7	10.0	0.1	yes
Material Used:	Duplicate					
Date Acquired:	September 06, 2008					
Acquired By:	Jennifer Persson					

Control Sample	Units	Measured	Mean	Lower Limit	Upper Limit	Passed QC
Boron	mg/kg	1.5	1.3	1.0	1.7	yes
Material Used:	2007 Farmsoil Standard					
Date Acquired:	September 06, 2008					
Acquired By:	Jennifer Persson					
Boron	mg/kg	0.1	0.1	0.0	0.2	yes
Material Used:	Calibration Check					
Date Acquired:	September 06, 2008					
Acquired By:	Jennifer Persson					

Metals Strong Acid Digestion

Blanks	Units	Measured	Mean	Lower Limit	Upper Limit	Passed QC
Mercury	mg/kg	<0.01	0.01	-0.07	0.09	yes
Antimony	mg/kg	<0.2	0.0	-0.2	0.2	yes
Arsenic	mg/kg	<0.2	0.0	-0.1	0.2	yes
Barium	mg/kg	<1	0	-0	1	yes
Beryllium	mg/kg	<0.1	0.0	-0.1	0.1	yes
Cadmium	mg/kg	<0.01	0.00	-0.01	0.01	yes
Chromium	mg/kg	<0.5	0.0	-0.4	0.5	yes
Cobalt	mg/kg	<0.1	0.0	-0.1	0.1	yes
Copper	mg/kg	<1	0	-1	1	yes
Lead	mg/kg	<0.1	0.0	-0.1	0.1	yes
Molybdenum	mg/kg	<1	0	-1	1	yes
Nickel	mg/kg	<0.5	0.0	-0.5	0.5	yes
Selenium	mg/kg	<0.3	0.0	-0.2	0.2	yes
Silver	mg/kg	<0.1	0.0	-0.1	0.1	yes
Thallium	mg/kg	<0.05	0.00	-0.04	0.05	yes
Tin	mg/kg	4	4	1	6	yes
Vanadium	mg/kg	<0.1	0.0	-0.1	0.1	yes
Zinc	mg/kg	<1	0	-1	1	yes

Bodycote TESTING GROUP

Quality Control

Bill To:	Access Mining Consultants Ltd.	Project:	
Report To:	Access Mining Consultants Ltd.	ID:	Keno Hydrocarbon
	#3 Calcite Business Centre	Name:	
	151 Industrial Road	Location:	
	Whitehorse, YT, Canada	LSD:	Keno Valley
	Y1A 2V3	P.O.:	
Attn:	Kurt Neunherz	Acct code:	
Sampled By:	K.Neunherz		
Company:	ACG		

Lot ID:	**640016**
Control Number:	E 01695
Date Received:	Sep 2, 2008
Date Reported:	Sep 8, 2008
Report Number:	1146664

Metals Strong Acid Digestion - Continued

Blanks	Units	Measured	Mean	Lower Limit	Upper Limit	Passed QC
Material Used:	Method Blank					
Date Acquired:	September 04, 2008					
Acquired By:	Jennifer Persson					

Replicates	Units	Replicate1	Replicate2	% RSD Criteria	Absolute Criteria	Passed QC
Mercury	mg/kg	0.07	0.06	9.99	0.03	yes
Antimony	mg/kg	<0.2	<0.2	20.0	0.4	yes
Arsenic	mg/kg	7.4	7.3	20.0	0.4	yes
Barium	mg/kg	217	219	20	2	yes
Beryllium	mg/kg	1	0.8	20.0	0.2	yes
Cadmium	mg/kg	0.90	1.03	20.01	0.02	yes
Chromium	mg/kg	49.0	55.5	20.0	1.1	yes
Cobalt	mg/kg	13.1	12.5	20.0	0.2	yes
Copper	mg/kg	26	25	20	2	yes
Lead	mg/kg	38.4	42.5	20.0	0.2	yes
Molybdenum	mg/kg	6	6	20	2	yes
Nickel	mg/kg	56.1	60.4	20.0	1.1	yes
Selenium	mg/kg	1.0	1.2	20.0	0.7	yes
Silver	mg/kg	0.6	0.6	20.0	0.2	yes
Thallium	mg/kg	0.25	0.23	20.01	0.11	yes
Tin	mg/kg	2	2	20	2	yes
Vanadium	mg/kg	52.2	48.5	20.0	0.2	yes
Zinc	mg/kg	76	74	20	2	yes
Material Used:	Duplicate					
Date Acquired:	September 04, 2008					
Acquired By:	Alexsandra Robert					

Control Sample	Units	Measured	Mean	Lower Limit	Upper Limit	Passed QC
Mercury	mg/kg	0.30	0.29	0.24	0.34	yes
Antimony	mg/kg	0.6	0.6	0.2	1.1	yes
Arsenic	mg/kg	91.3	91.1	61.4	120.8	yes
Barium	mg/kg	243	262	188	336	yes
Beryllium	mg/kg	1	0.9	0.6	1.2	yes
Cadmium	mg/kg	1.99	2.09	1.28	2.90	yes
Chromium	mg/kg	46.2	45.4	29.8	61.0	yes
Cobalt	mg/kg	14.9	14.2	9.8	18.6	yes
Copper	mg/kg	209	205	147	262	yes
Lead	mg/kg	119	123.3	84.9	161.7	yes
Molybdenum	mg/kg	3	3	2	4	yes
Nickel	mg/kg	63.5	65.1	42.9	87.3	yes
Selenium	mg/kg	0.8	0.7	0.3	1.1	yes
Silver	mg/kg	0.6	1.0	0.6	1.5	yes
Thallium	mg/kg	0.37	0.38	0.26	0.50	yes

Bodycote TESTING GROUP

Quality Control

Bill To:	Access Mining Consultants Ltd.	Project:	
Report To:	Access Mining Consultants Ltd.	ID:	Keno Hydrocarbon
	#3 Calcite Business Centre	Name:	
	151 Industrial Road	Location:	
	Whitehorse, YT, Canada	LSD:	Keno Valley
	Y1A 2V3	P.O.:	
Attn:	Kurt Neunherz	Acct code:	
Sampled By:	K.Neunherz		
Company:	ACG		

Lot ID:	**640016**
Control Number:	E 01695
Date Received:	Sep 2, 2008
Date Reported:	Sep 8, 2008
Report Number:	1146664

Metals Strong Acid Digestion - Continued

Control Sample	Units	Measured	Mean	Lower Limit	Upper Limit	Passed QC
Tin	mg/kg	4	4	1	7	yes
Vanadium	mg/kg	48.4	48.0	32.6	63.4	yes
Zinc	mg/kg	515	523	331	715	yes
Material Used:	Metals Soil SS-2					
Date Acquired:	September 04, 2008					
Acquired By:	Jennifer Persson					

Extractable Petroleum Hydrocarbons - Soil

Blanks	Units	Measured	Mean	Lower Limit	Upper Limit	Passed QC
EPHs10-19	ug/g	<20	0	-20	20	yes
EPHs19-32	ug/g	<20	0	-20	20	yes
Material Used:	Method Blank - EPH					
Date Acquired:	September 04, 2008					
Acquired By:	Craig Stehr					

Calibration Check	Units	Measured	Target	% Recovery	Criteria (%)	Passed QC
EPHs10-19	ug/mL	51.9	53	98	85 - 115	yes
EPHs19-32	ug/mL	51.9	53	98	85 - 115	yes
Material Used:	Calibration Check - EPH					
Date Acquired:	September 04, 2008					
Acquired By:	Craig Stehr					

Certified Reference Material	Units	Measured	Target	Lower Limit	Upper Limit	Passed QC
EPHs10-19	ug/g	3440	2500	1750	3250	yes
EPHs19-32	ug/g	4350	3140	2390	3890	yes
Material Used:	BCRM2005-EPH					
Date Acquired:	September 04, 2008					
Acquired By:	Craig Stehr					

Replicates	Units	Replicate1	Replicate2	% RSD Criteria	Absolute Criteria	Passed QC
EPHs10-19	ug/g	140	135	60	100	yes
EPHs19-32	ug/g	1140	1260	60	100	yes
Material Used:	Matrix Spike Duplicate 2 - EPH					
Date Acquired:	September 04, 2008					
Acquired By:	Craig Stehr					

Matrix Spike	Units	Measured	Actual	% Recovery	Criteria (%)	Passed QC
EPHs10-19	ug/g	29	25.3	63	73 - 113	yes
EPHs19-32	ug/g	30	26.42	96	75 - 115	yes
Material Used:	Matrix Spike - EPH					
Date Acquired:	September 04, 2008					
Acquired By:	Craig Stehr					

Bodycote TESTING GROUP

Quality Control

Bill To:	Access Mining Consultants Ltd.	Project:	
Report To:	Access Mining Consultants Ltd.	ID:	Keno Hydrocarbon
	#3 Calcite Business Centre	Name:	
	151 Industrial Road	Location:	
	Whitehorse, YT, Canada	LSD:	Keno Valley
	Y1A 2V3	P.O.:	
Attn:	Kurt Neunherz	Acct code:	
Sampled By:	K.Neunherz		
Company:	ACG		

Lot ID:	**640016**
Control Number:	E 01695
Date Received:	Sep 2, 2008
Date Reported:	Sep 8, 2008
Report Number:	1146664

Extractable Petroleum Hydrocarbons - Soil - Continued

Matrix Spike	Units	Measured	Actual	% Recovery	Criteria (%)	Passed QC

Bodycote TESTING GROUP

Methodology and Notes

Bill To:	Access Mining Consultants Ltd.	Project:	
Report To:	Access Mining Consultants Ltd.	ID:	Keno Hydrocarbon
	#3 Calcite Business Centre	Name:	
	151 Industrial Road	Location:	
	Whitehorse, YT, Canada	LSD:	Keno Valley
	Y1A 2V3	P.O.:	
Attn:	Kurt Neunherz	Acct code:	
Sampled By:	K.Neunherz		
Company:	ACG		

Lot ID:	**640016**
Control Number:	E 01695
Date Received:	Sep 2, 2008
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Report Number:	1146664

Method of Analysis

Method Name	Reference		Method	Date Analysis Started	Location
Boron in general soil	McKeague	*	Hot Water Soluble Boron - Azomethine -H Method, 4.61	06-Sep-08	BTG Edmonton
EPH - Soil	BCELM	*	Extractable Petroleum Hydrocarbons (EPH) in Solids by GC/FID, EPH Solids	04-Sep-08	BTG Surrey
Mercury (Hot Block) in Soil	US EPA	*	Determination of Hg in Sediment by Cold Vapor Atomic Absorption Spec, 245.5	05-Sep-08	BTG Edmonton
Metals ICP-MS (Hot Block) in soil	SW-846	*	Acid Digestion of Sediments, Sludges, and Soils, EPA 3050B	04-Sep-08	BTG Edmonton

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

References

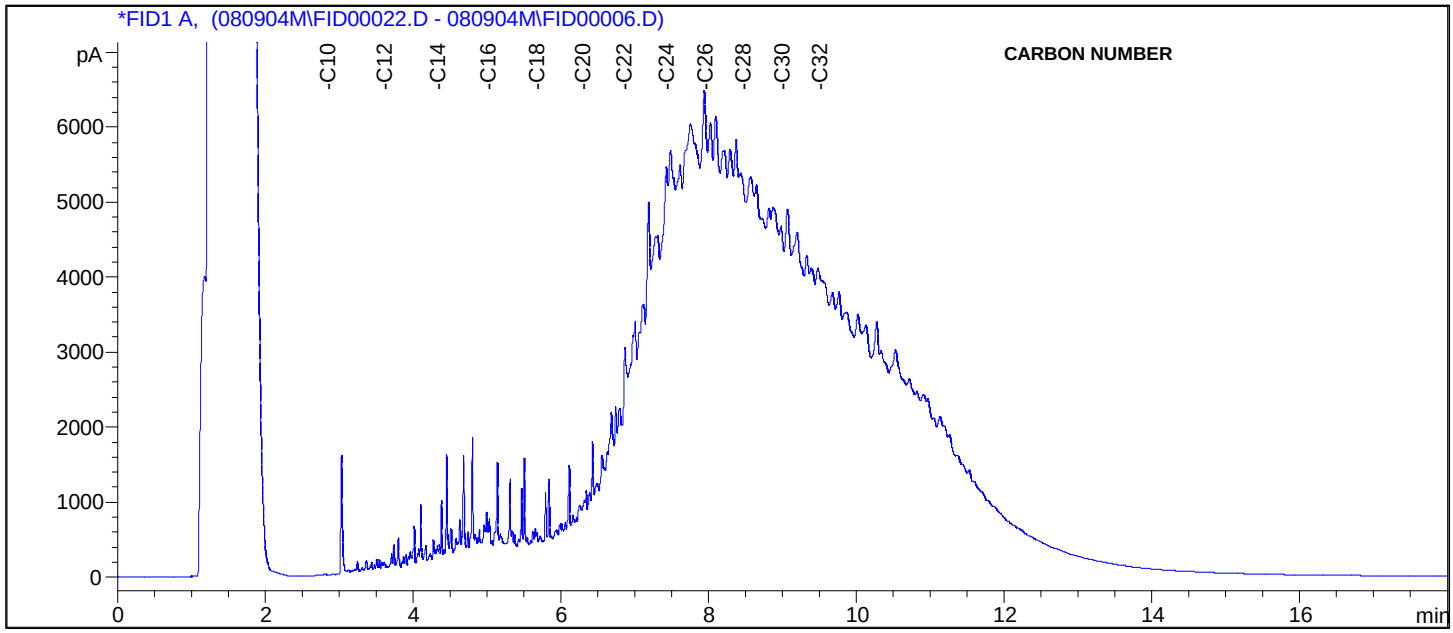
BCELM	B.C. Environmental Laboratory Manual
McKeague	Manual on Soil Sampling and Methods of Analysis
SW-846	Test Methods for Evaluating Solid Waste
US EPA	US Environmental Protection Agency Test Methods

Comments:

Hydrocarbon Chromatogram

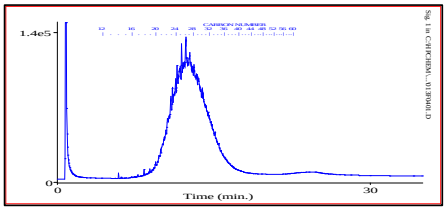
Bill To:	Access Mining Consultants Ltd.	Project ID:	Keno Hydrocarbon Contamination	Lot ID:	**640016**
Report To:	Access Mining Consultants Ltd.	Name:		Control Number:	E 01695
	#3 Calcite Business Centre	Location:		Date Received:	Sep 2, 2008
	151 Industrial Road	LSD:	Keno Valley	Date Reported:	
	Whitehorse, YT, Canada	P.O.:		Report Number:	
	Y1A 2V3				
Attn:	Kurt Neunherz				
Sampled by:	K.Neunherz				
Company:	ACG				

NWL Number: 640016-1 Sample Description: Bellekeno 625
Sample Date: Aug 29, 2008

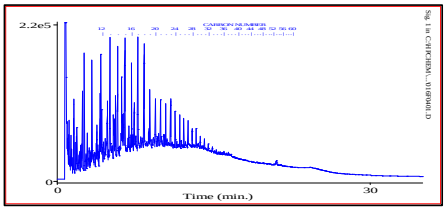


TYPICAL PRODUCT CHROMATOGRAMS

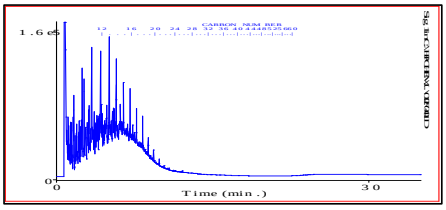
Motor Oil 10W30



Unweathered Crude



Winter Diesel



Product Carbon Number Ranges

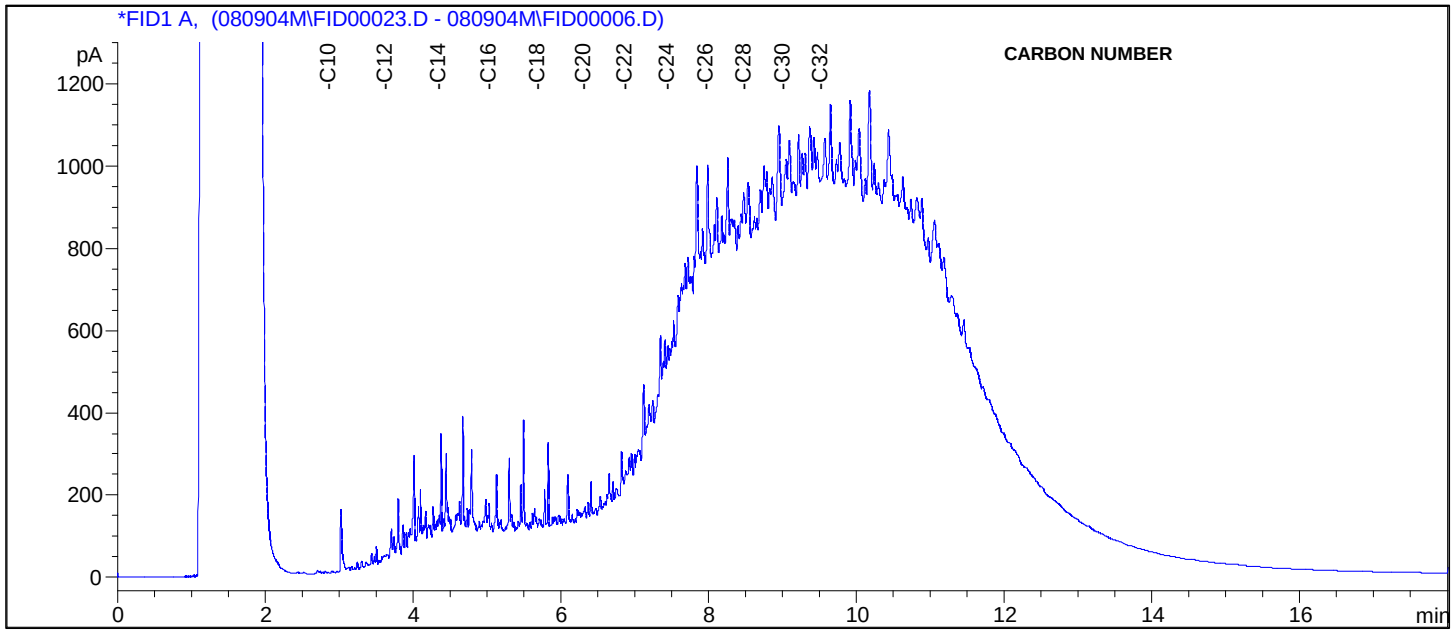
Gasoline	C4-C12	Kerosene	C7-C16	Lubricating Oils	C20-C40
Varsol	C8-C12	Diesel	C8-C22	Crude Oils	C3-C60+

Bodycote TESTING GROUP

Hydrocarbon Chromatogram

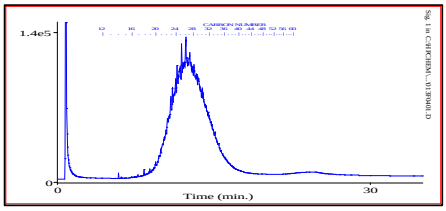
Bill To:	Access Mining Consultants Ltd.	Project ID:	Keno Hydrocarbon Contamination	Lot ID:	**640016**
Report To:	Access Mining Consultants Ltd.	Name:		Control Number:	E 01695
	#3 Calcite Business Centre	Location:		Date Received:	Sep 2, 2008
	151 Industrial Road	LSD:	Keno Valley	Date Reported:	
	Whitehorse, YT, Canada	P.O.:		Report Number:	
	Y1A 2V3				
Attn:	Kurt Neunherz				
Sampled by:	K.Neunherz				
Company:	ACG				

NWL Number: 640016-2 Sample Description: Runer Shop Floor
Sample Date: Aug 29, 2008



TYPICAL PRODUCT CHROMATOGRAMS

Motor Oil 10W30



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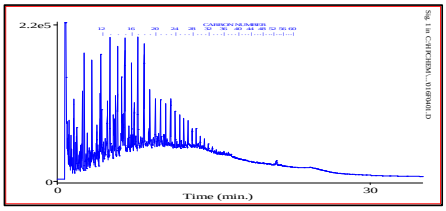
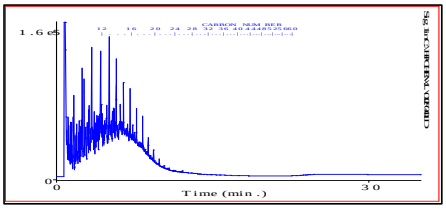


Winter Diesel



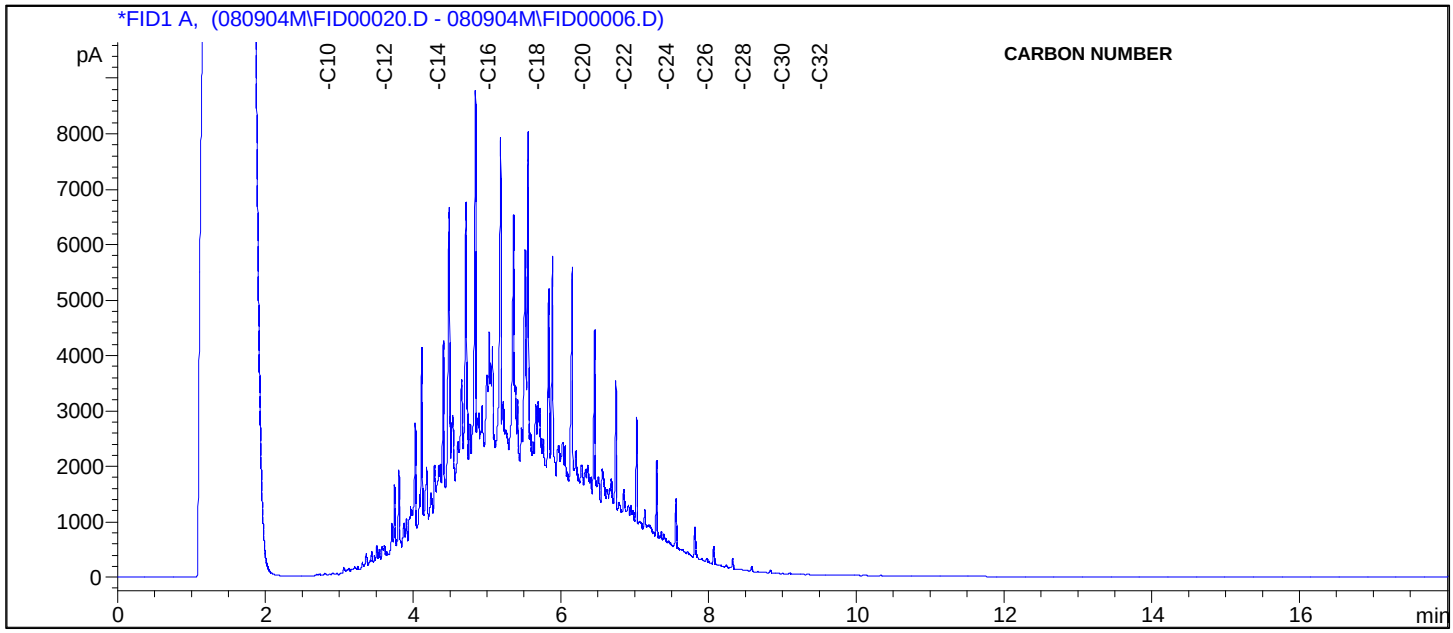
Product Carbon Number Ranges

Gasoline	C4-C12	Kerosene	C7-C16	Lubricating Oils	C20-C40
Varsol	C8-C12	Diesel	C8-C22	Crude Oils	C3-C60+

Hydrocarbon Chromatogram

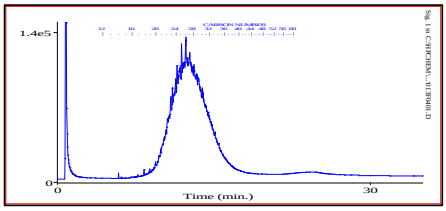
Bill To:	Access Mining Consultants Ltd.	Project ID:	Keno Hydrocarbon Contamination	Lot ID:	**640016**
Report To:	Access Mining Consultants Ltd.	Name:		Control Number:	E 01695
	#3 Calcite Business Centre	Location:		Date Received:	Sep 2, 2008
	151 Industrial Road	LSD:	Keno Valley	Date Reported:	
	Whitehorse, YT, Canada	P.O.:		Report Number:	
	Y1A 2V3				
Attn:	Kurt Neunherz				
Sampled by:	K.Neunherz				
Company:	ACG				

NWL Number: 640016-3 Sample Description: Husky AST
Sample Date: Aug 28, 2008

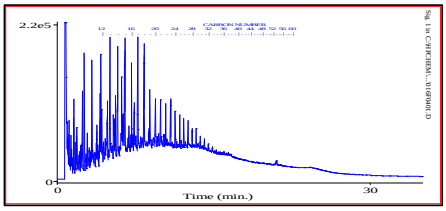


TYPICAL PRODUCT CHROMATOGRAMS

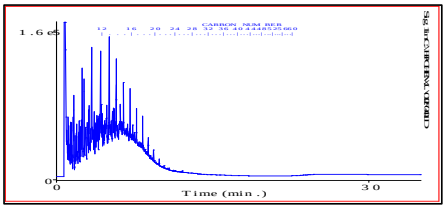
Motor Oil 10W30



Unweathered Crude



Winter Diesel



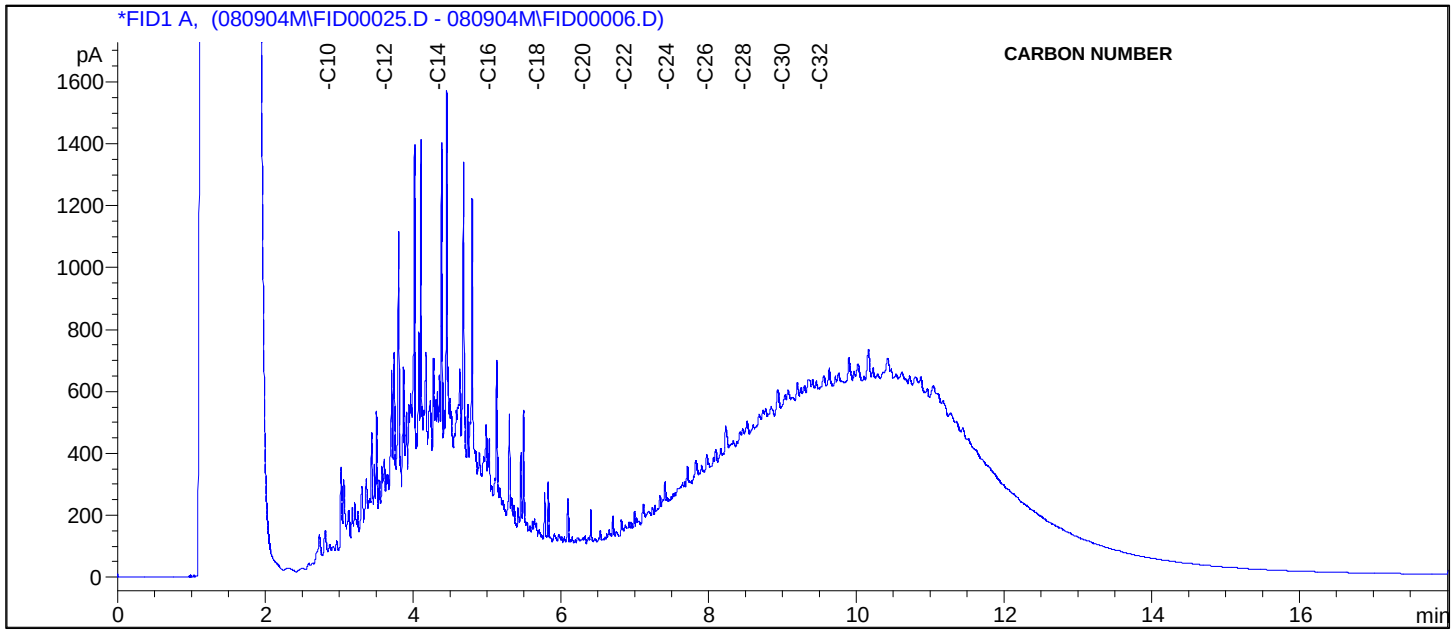
Product Carbon Number Ranges

Gasoline	C4-C12	Kerosene	C7-C16	Lubricating Oils	C20-C40
Varsol	C8-C12	Diesel	C8-C22	Crude Oils	C3-C60+

Hydrocarbon Chromatogram

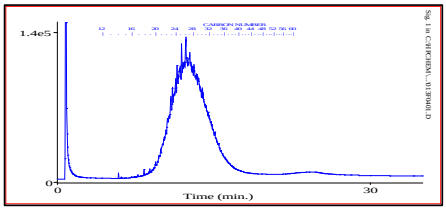
Bill To:	Access Mining Consultants Ltd.	Project ID:	Keno Hydrocarbon Contamination	Lot ID:	**640016**
Report To:	Access Mining Consultants Ltd.	Name:		Control Number:	E 01695
	#3 Calcite Business Centre	Location:		Date Received:	Sep 2, 2008
	151 Industrial Road	LSD:	Keno Valley	Date Reported:	
	Whitehorse, YT, Canada	P.O.:		Report Number:	
	Y1A 2V3				
Attn:	Kurt Neunherz				
Sampled by:	K.Neunherz				
Company:	ACG				

NWL Number: 640016-4 Sample Description: Silver King Garage
Sample Date: Aug 28, 2008



TYPICAL PRODUCT CHROMATOGRAMS

Motor Oil 10W30



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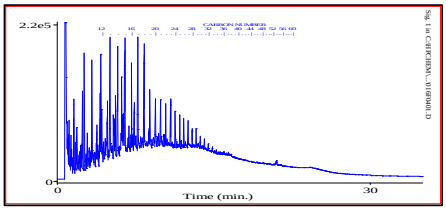
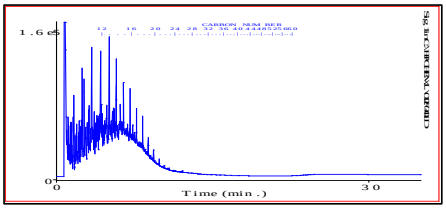


Winter Diesel



Product Carbon Number Ranges

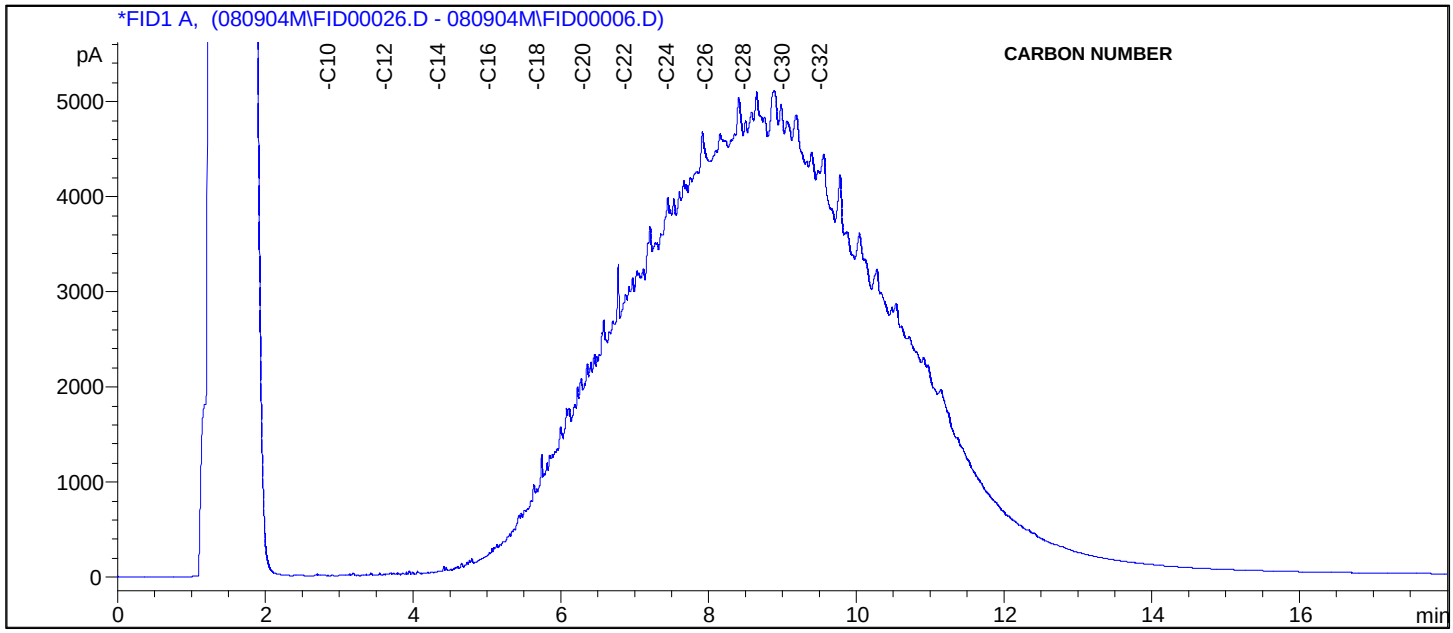
Gasoline	C4-C12	Kerosene	C7-C16	Lubricating Oils	C20-C40
Varsol	C8-C12	Diesel	C8-C22	Crude Oils	C3-C60+

Bodycote TESTING GROUP

Hydrocarbon Chromatogram

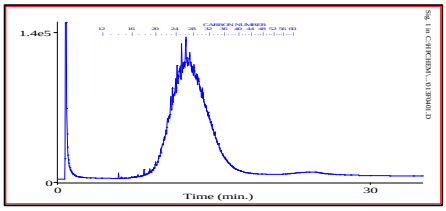
Bill To:	Access Mining Consultants Ltd.	Project ID:	Keno Hydrocarbon Contamination	Lot ID:	**640016**
Report To:	Access Mining Consultants Ltd.	Name:		Control Number:	E 01695
	#3 Calcite Business Centre	Location:		Date Received:	Sep 2, 2008
	151 Industrial Road	LSD:	Keno Valley	Date Reported:	
	Whitehorse, YT, Canada	P.O.:		Report Number:	
	Y1A 2V3				
Attn:	Kurt Neunherz				
Sampled by:	K.Neunherz				
Company:	ACG				

NWL Number: 640016-5 Sample Description: Husky Lube Shop
Sample Date: Aug 28, 2008

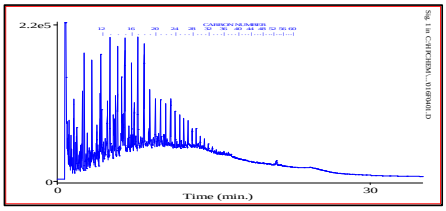


TYPICAL PRODUCT CHROMATOGRAMS

Motor Oil 10W30



Unweathered Crude



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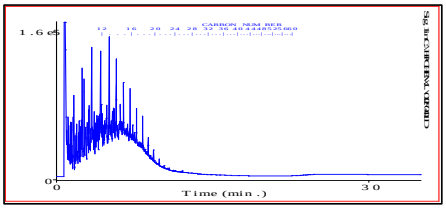


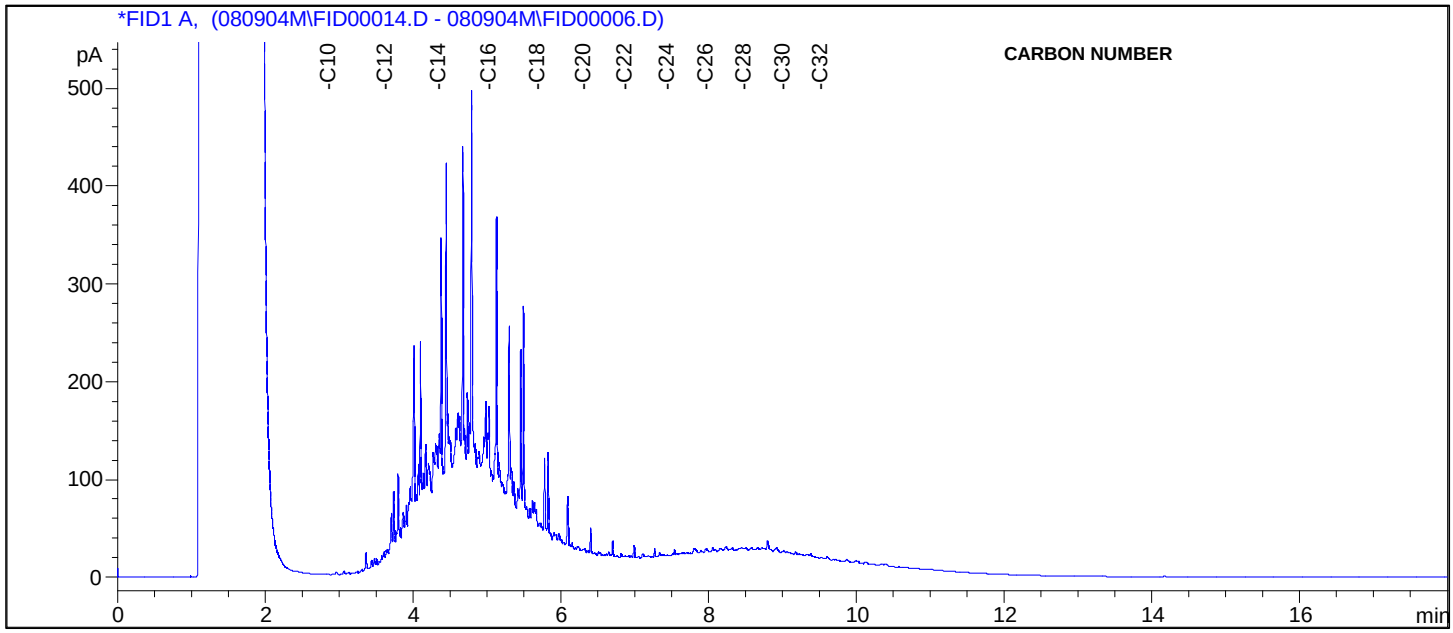
Product Carbon Number Ranges

Gasoline	C4-C12	Kerosene	C7-C16	Lubricating Oils	C20-C40
Varsol	C8-C12	Diesel	C8-C22	Crude Oils	C3-C60+

Hydrocarbon Chromatogram

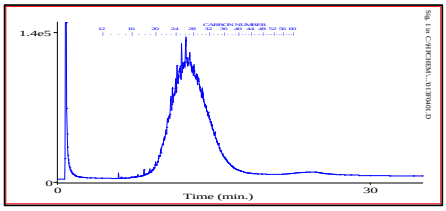
Bill To:	Access Mining Consultants Ltd.	Project ID:	Keno Hydrocarbon Contamination	Lot ID:	**640016**
Report To:	Access Mining Consultants Ltd.	Name:		Control Number:	E 01695
	#3 Calcite Business Centre	Location:		Date Received:	Sep 2, 2008
	151 Industrial Road	LSD:	Keno Valley	Date Reported:	
	Whitehorse, YT, Canada	P.O.:		Report Number:	
	Y1A 2V3				
Attn:	Kurt Neunherz				
Sampled by:	K.Neunherz				
Company:	ACG				

NWL Number: 640016-6 Sample Description: Ruby 400 Large Stain
Sample Date: Aug 27, 2008

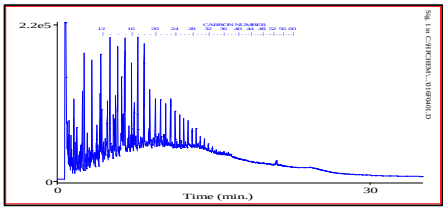


TYPICAL PRODUCT CHROMATOGRAMS

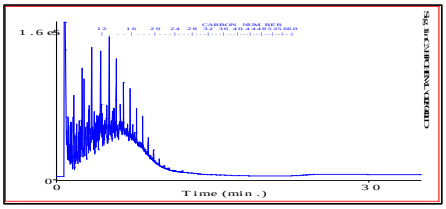
Motor Oil 10W30



Unweathered Crude



Winter Diesel



Product Carbon Number Ranges

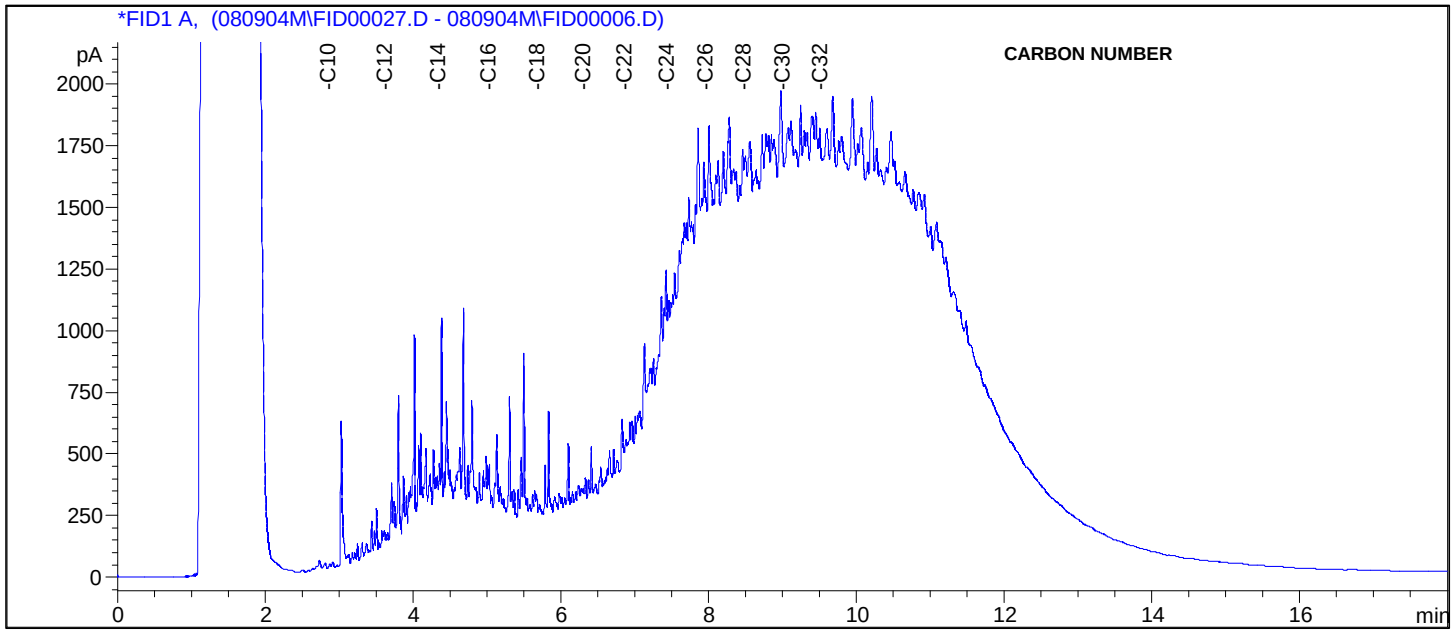
Gasoline	C4-C12	Kerosene	C7-C16	Lubricating Oils	C20-C40
Varsol	C8-C12	Diesel	C8-C22	Crude Oils	C3-C60+

Bodycote TESTING GROUP

Hydrocarbon Chromatogram

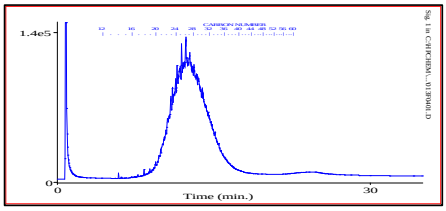
Bill To:	Access Mining Consultants Ltd.	Project ID:	Keno Hydrocarbon Contamination	Lot ID:	**640016**
Report To:	Access Mining Consultants Ltd.	Name:		Control Number:	E 01695
	#3 Calcite Business Centre	Location:		Date Received:	Sep 2, 2008
	151 Industrial Road	LSD:	Keno Valley	Date Reported:	
	Whitehorse, YT, Canada	P.O.:		Report Number:	
	Y1A 2V3				
Attn:	Kurt Neunherz				
Sampled by:	K.Neunherz				
Company:	ACG				

NWL Number: 640016-7 Sample Description: Ruby 400 Garage
Sample Date: Aug 27, 2008

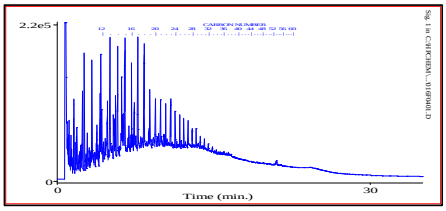


TYPICAL PRODUCT CHROMATOGRAMS

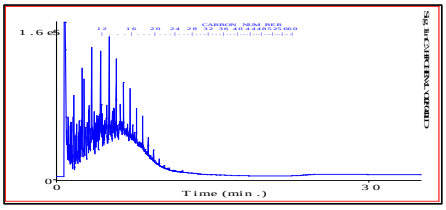
Motor Oil 10W30



Unweathered Crude



Winter Diesel



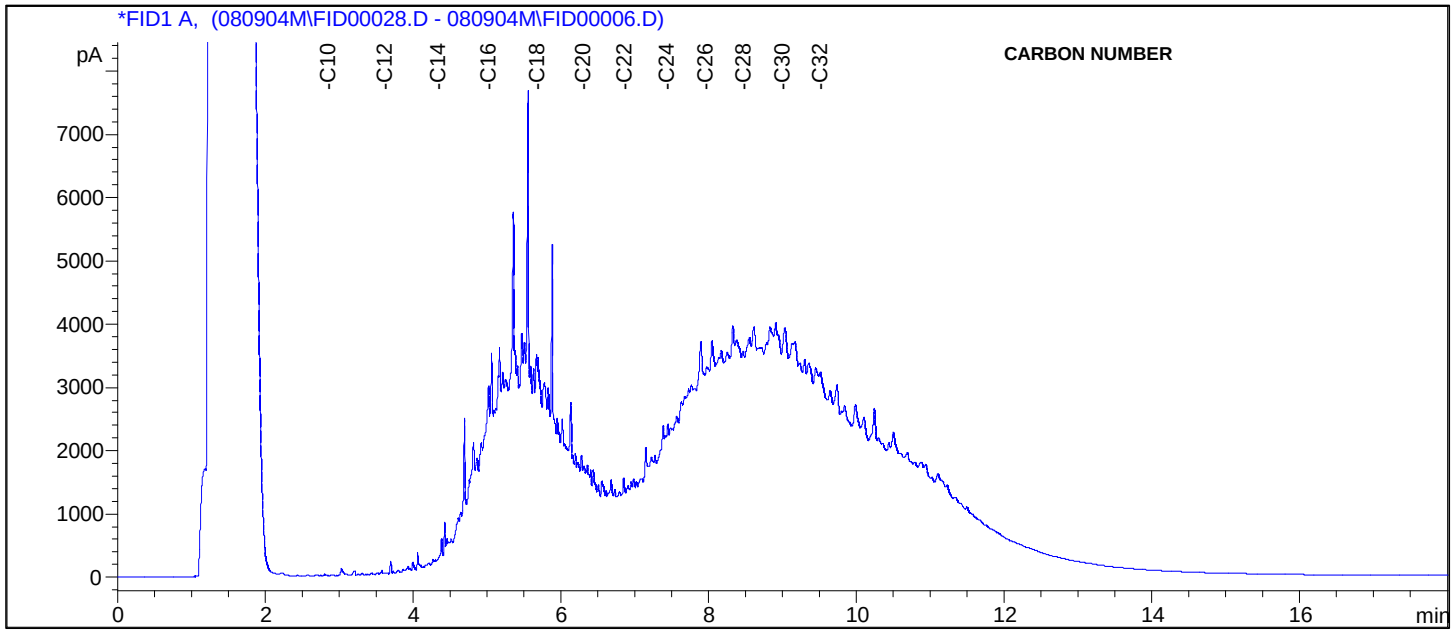
Product Carbon Number Ranges

Gasoline	C4-C12	Kerosene	C7-C16	Lubricating Oils	C20-C40
Varsol	C8-C12	Diesel	C8-C22	Crude Oils	C3-C60+

Hydrocarbon Chromatogram

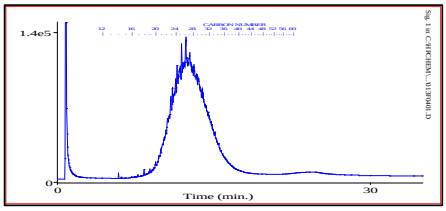
Bill To:	Access Mining Consultants Ltd.	Project ID:	Keno Hydrocarbon Contamination	Lot ID:	**640016**
Report To:	Access Mining Consultants Ltd.	Name:		Control Number:	E 01695
	#3 Calcite Business Centre	Location:		Date Received:	Sep 2, 2008
	151 Industrial Road	LSD:	Keno Valley	Date Reported:	
	Whitehorse, YT, Canada	P.O.:		Report Number:	
	Y1A 2V3				
Attn:	Kurt Neunherz				
Sampled by:	K.Neunherz				
Company:	ACG				

NWL Number: 640016-8 Sample Description: Galkeno 300 Garage
Sample Date: Aug 27, 2008

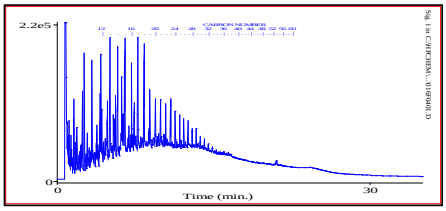


TYPICAL PRODUCT CHROMATOGRAMS

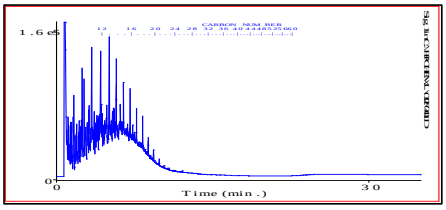
Motor Oil 10W30



Unweathered Crude



Winter Diesel



Product Carbon Number Ranges

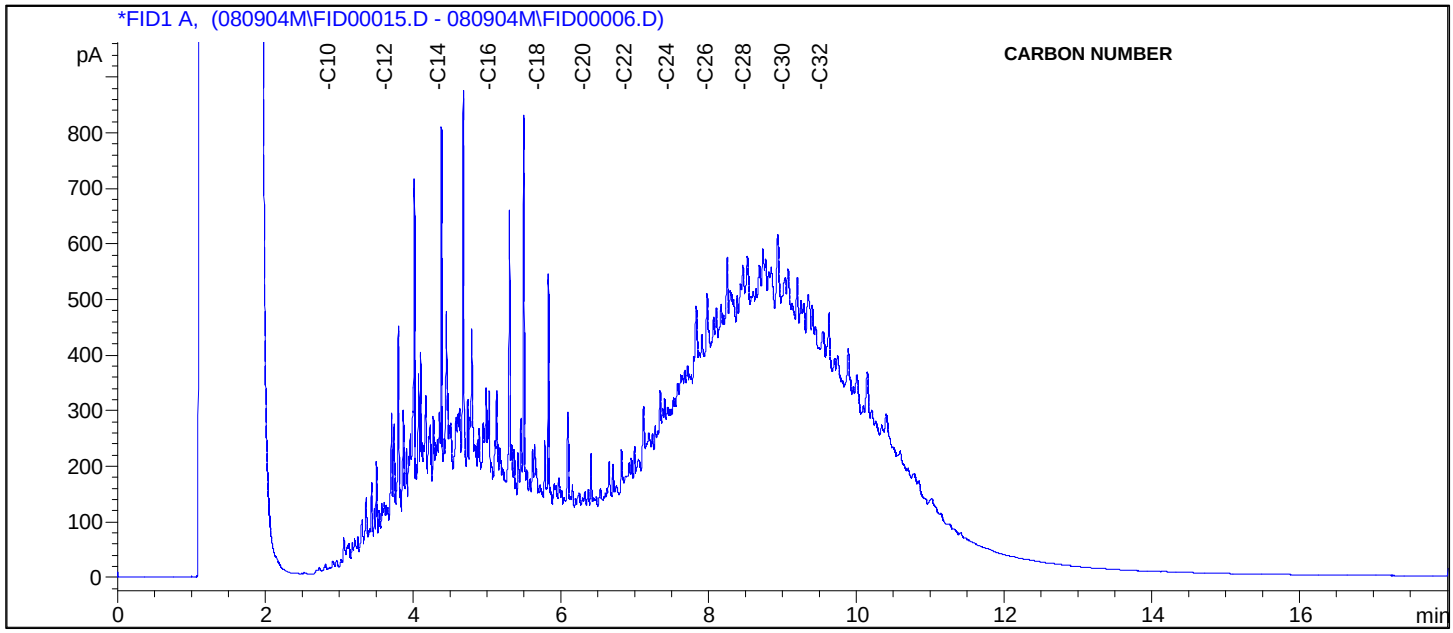
Gasoline	C4-C12	Kerosene	C7-C16	Lubricating Oils	C20-C40
Varsol	C8-C12	Diesel	C8-C22	Crude Oils	C3-C60+

Bodycote TESTING GROUP

Hydrocarbon Chromatogram

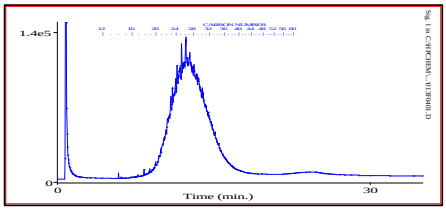
Bill To:	Access Mining Consultants Ltd.	Project ID:	Keno Hydrocarbon Contamination	Lot ID:	**640016**
Report To:	Access Mining Consultants Ltd.	Name:		Control Number:	E 01695
	#3 Calcite Business Centre	Location:		Date Received:	Sep 2, 2008
	151 Industrial Road	LSD:	Keno Valley	Date Reported:	
	Whitehorse, YT, Canada	P.O.:		Report Number:	
	Y1A 2V3				
Attn:	Kurt Neunherz				
Sampled by:	K.Neunherz				
Company:	ACG				

NWL Number: 640016-9 Sample Description: Dixie
Sample Date: Aug 27, 2008

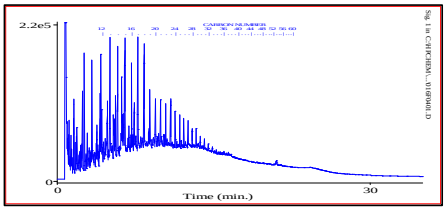


TYPICAL PRODUCT CHROMATOGRAMS

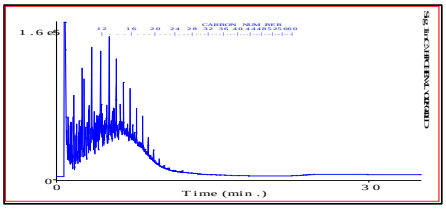
Motor Oil 10W30



Unweathered Crude



Winter Diesel



Product Carbon Number Ranges

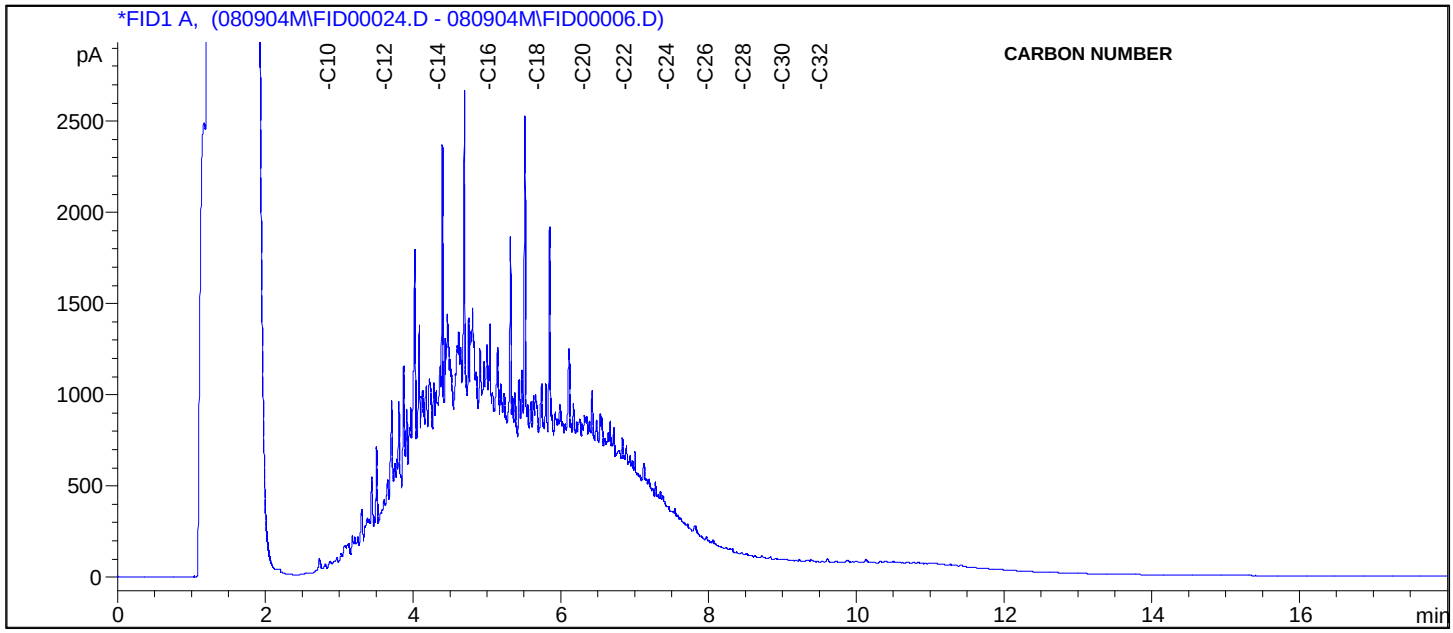
Gasoline	C4-C12	Kerosene	C7-C16	Lubricating Oils	C20-C40
Varsol	C8-C12	Diesel	C8-C22	Crude Oils	C3-C60+

Bodycote TESTING GROUP

Hydrocarbon Chromatogram

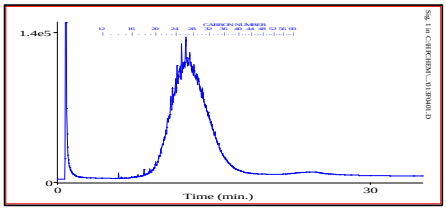
Bill To:	Access Mining Consultants Ltd.	Project ID:	Keno Hydrocarbon Contamination	Lot ID:	**640016**
Report To:	Access Mining Consultants Ltd.	Name:		Control Number:	E 01695
	#3 Calcite Business Centre	Location:		Date Received:	Sep 2, 2008
	151 Industrial Road	LSD:	Keno Valley	Date Reported:	
	Whitehorse, YT, Canada	P.O.:		Report Number:	
	Y1A 2V3				
Attn:	Kurt Neunherz				
Sampled by:	K.Neunherz				
Company:	ACG				

NWL Number: 640016-10 Sample Description: Ruby 400 Oil pan stain
Sample Date: Aug 27, 2008

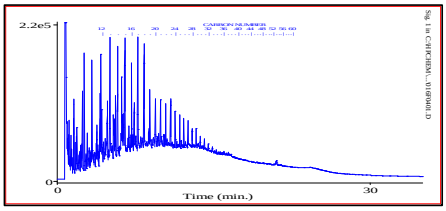


TYPICAL PRODUCT CHROMATOGRAMS

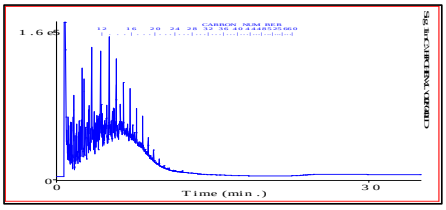
Motor Oil 10W30



Unweathered Crude



Winter Diesel



Product Carbon Number Ranges

Gasoline	C4-C12	Kerosene	C7-C16	Lubricating Oils	C20-C40
Varsol	C8-C12	Diesel	C8-C22	Crude Oils	C3-C60+

NORWEST LABS

LOT # 640016

Control Number E 01695

Environmental Sample Information Sheet

NOTE Proper completion of this form is required in order to proceed with analysis

See reverse for your nearest Norwest location and proper sampling protocol

Billing Address:	**Report To:** ☐	**Copy of Report To:**	**Copy of invoice:** ☐
Company: Access Consulting Group		Company:	Mail invoice to this address for approval ☐
Address: #3 151 Industrial Rd Whitehorse	QA/QC Report ☐	Address:	
Attention: Kurt Neumberz	Report Result:	Attention: Paul Inglis	Report Result:
Phone: 867-668-6463	Fax ☐	Phone:	Fax ☐
Fax: 867-667-6680	Mail ☐	Fax:	Mail ☐
Cell:	Courier ☐	Cell:	Courier ☐
e-mail: kurt@accessconsulting.ca	e-mail ☒	e-mail: paul@accessconsulting.ca	e-mail ☒

Information to be included on Report and Invoice

Project ID: Keno Hydrocarbon Contamination

Project Name: Studies

Project Location:

Legal Location: Keno Valley

PO#:

Proj. Acct. Code:

Agreement ID: 76352

RUSH

Please contact the laboratory to confirm rush dates and times before submitting samples.

Upon filling out this section, client accepts that surcharges will be attached to this analysis

Required on: all analyses **or** as indicated ☐ **or** ☐

Date Required: _____

Signature: _____

Norwest Authorization: _____

Sample Custody (Please Print)

Sampled by: K. Neumberz Date 26-29 Aug

Company ACG Signature

Relinquished by: P. Inglis

Company ACG Date 29 Aug

Waybill number:

Received by: [illegible] 6C

Company SEP 02 2003 Date

Processed by: [illegible] 9:45

Norwest Labs Date

Special Instructions / Comments

	Sample Identification	Location	Depth	Date / Time Sampled	Matrix	Sampling Method	Number of Containers	ICP Metals	EPH	Enter tests above (✓ relevant samples below)
1	Bellekeno 625		~~[illegible]~~	10:55 29Aug	Soil	Grab	2	✓	✓	
2	Runner Shop Floor		—	9:40 29Aug	Soil	Grab	1		✓	
3	Husky AST		—	9:40 28Aug	Soil	Grab	1		✓	
4	Silver King GARAGE		—	8:00 28Aug	Soil	Grab	2	✓	✓	
5	Husky LUBE SHOP		—	9:45 28Aug	Soil	Grab	2	✓	✓	
6	Ruby 400 Large Stain		—	14:50 27Aug	Soil	Grab	2	✓	✓	
7	Ruby 400 Garage		—	14:45 27Aug	Soil	Grab	2	✓	✓	
8	Galkeno 300 Garage		—	17:45 27Aug	Soil	Grab	2	✓	✓	
9	Dixie		—	13:10 27Aug	Soil	Grab	1		✓	
10	Ruby 400 Oil pan stain		—	14:50 27Aug	Soil	Grab	1		✓	
11			—							
12			—							
13			—							
14			—							

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

Accredited by the Standards Council of Canada for specific tests

Bodycote TESTING GROUP

Report Transmission Cover Page

Bill To:	Access Mining Consultants Ltd.	Project:	
Report To:	Access Mining Consultants Ltd.	ID:	Keno Hydrocarbon
	#3 Calcite Business Centre	Name:	
	151 Industrial Road	Location:	
	Whitehorse, YT, Canada	LSD:	Keno Valley
	Y1A 2V3	P.O.:	
Attn:	Kurt Neunherz	Acct code:	(Additional)
Sampled By:	K.Neunherz		
Company:	ACG		

Lot ID:	**640016**
Approval Status:	Approved
Invoice Frequency:	by Lot
COD Status:	
Control Number:	E 01695
Date Received:	Sep 2, 2008
Date Reported:	Sep 26, 2008
Report Number:	1152425

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:

- This report was issued to include addition of PH analysis on samples #1, 4, 5, 6, 7 & 8 and Metals and PH analysis on sample #14 requested by Kurt Neunherz of Access Mining Consultants Ltd. on September 23, 2008. Report 1152425 is an addendum to report 1146664.

Reports associated with this Lot

Id/Format/Report Date	Id/Format/Report Date	Id/Format/Report Date
1146664 Env2QC 3 Smp & DL 08-Sep-08		

Bodycote TESTING GROUP

Sample Custody

Bill To:	Access Mining Consultants Ltd.	Project:	
Report To:	Access Mining Consultants Ltd.	ID:	Keno Hydrocarbon
	#3 Calcite Business Centre	Name:	
	151 Industrial Road	Location:	
	Whitehorse, YT, Canada	LSD:	Keno Valley
	Y1A 2V3	P.O.:	
Attn:	Kurt Neunherz	Acct code:	(Additional)
Sampled By:	K.Neunherz		
Company:	ACG		

Lot ID:	**640016**
Control Number:	E 01695
Date Received:	Sep 2, 2008
Date Reported:	Sep 26, 2008
Report Number:	1152425

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 _____

Control Number

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:** ☐	**Copy of Report To:**		**Copy of invoice:** ☐
Company:	Access Consulting Group		Company:	Access Consulting Group	Mail invoice to this address for approval ☐
Address:	#3 Calcite Business Centre-151 Industrial Road Whitehorse, YT Y1A 2V3	QA/QC Report ☑	Address:	#3 Calcite Business Centre-151 Industrial Road Whitehorse, YT Y1A 2V3	
Attention:	Kurt Neunherz	Report Result:	Attention:	Kurt Neunherz	Report Result:
Phone:	~~867-668-6364~~ 867-668-6463	Fax ☐	Phone:	867-668-6364	Fax ☐
Fax:	867-667-6680	Mail ☐	Fax:	867-667-6680	Mail ☐
Cell:		Courier ☐	Cell:		Courier ☐
Email:	kurt@accessconsulting.ca	Email ☑	Email:	kurtt@accessconsulting.ca	Email ☑

Information to be included on Report and Invoice

Project ID: ALEX-08-ESP-01-T
Project Name: Hydrocarbon Assessment
Project Location: Elsa Special Project
Legal Location:
PO#: 4692-ACG
Proj. Acct. Code:
Agreement ID:

RUSH **Please contact the laboratory to confirm rush dates and times before submitting samples.**

Upon filling out this section, client accepts that surcharges will be attached to this analysis

Required on: all analyses **or** as indicated

☐ **or** ☐

Date required:
Signature:
Norwest Authorization:

Sample Custody (Please Print)

Sampled by: KN Date Oct 03 2008
Company ACG Signature
Relinquished by:
Company Date
Waybill number:
Received by:
Company Date
Processed by:
Norwest Labs Date

Special Instructions/Comments

Oct 7/08
EXTRA SAMPLES NOT LISTED ON PAPERWORK PUT ON Hold. Kurt has been emailed
OCT 06 2008
BM 10°C PLW

	Sample Identification	Location	Depth	Date/Time Sampled	Matrix	Sampling Method	Number of Containers	CTEH 5 (EPH)	CTEH2 (BTEX, EPH)	TT44 (ICP Metals)
							↓	Enter tests above (check off relevant samples below)		
1	Keno 700 Generators shack	Keno 700	-	Sept 29th 08	SOIL	GRAB	2	✓		✓
2	Onek Generators Shack	Onek	-	Sept 29th 08	SOIL	GRAB	1	✓		
3	Fuel Storage Area #2 Near Pump	Elsa	-	Oct 02nd 08	SOIL	GRAB	1		✓	
4	House AST Fill Pipe	Elsa	-	Oct 02nd 08	SOIL	GRAB	2		✓	✓
5	Waste Oil Storage #3 0-0.3m	Elsa	0 -0.3	Oct 02nd 08	SOIL	GRAB	1	✓		
6	Fuel Storage Area #4 0.5-1m	Elsa	0.5- 1	Oct 02nd 08	SOIL	GRAB	2		✓	✓
7	Fuel Storage Area #3 0-0.5m	Elsa	0 -0.5	Oct 02nd 08	SOIL	GRAB	1		✓	
8	Waste Oil Storage #1 0-0.5m	Elsa	0 -0.5	Oct 02nd 08	SOIL	GRAB	2	✓		✓
9	AST by Houses	Elsa	-	Oct 02nd 08	SOIL	GRAB	1		✓	
10	Fuel Storage Area #4 2.5m	Elsa	2.5 m	Oct 02nd 08	SOIL	GRAB	1		✓	
11	Fuel Storage Area #3 2 - 2.5m	Elsa	2 -2.5m	Oct 02nd 08	SOIL	GRAB	1		✓	
12	Keno 700 Oil Change Area	Keno 700	-	Sept 29th 08	SOIL	GRAB	1	✓		
13	Waste Oil Storage #1 0.5 - 1	Elsa	0.5- 1	Oct 2nd 08	SOIL	GRAB	1	✓		
14			-							

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

Accredited by the Standards Council of Canada for specific tests

Bodycote TESTING GROUP

Control Number A059281

Sample Information Sheet

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

Billing Address:		**Copy of Report To:**		**Copy of Invoice:** ☐
Company:		Company:		
Address:	QA/QC Report ☐	Address:		Mail Invoice to this address for approval ☐
	Report Results:			**Report Results:**
Attention:	Fax ☐	Attention:	647091	Fax ☐
Phone:	Mail ☐	Phone:		Mail ☐
Fax:	Courier ☐	Fax:		Courier ☐
Cell:	e-mail ☐	Cell:		e-mail ☐
e-mail:	e-Service ☐	e-mail:		e-Service ☐

Information to be included on Report and Invoice

Project ID:
Project Name:
Project Location:
Legal Location:
PO#:
Proj. Acct. Code:
Agreement ID:

Rush Please contact the laboratory to confirm rush dates and times before submitting samples.

Upon filling out this section, client accepts that surcharges will be attached to this analysis

RUSH required on: All analysis ☐ **or** As indicated ☐

Date Required: _____
Signature: _____
Bodycote Authorization: _____

Sample Custody (Please Print)
Sampled by:
Company Signature

I authorize Bodycote to proceed with the work indicated on this form:
Date: Initial:

Received by: Sample Temp. °C
Waybill # Date
Company Time

Special Instructions / Comments

FOR LAB USE ONLY
Condition of containers / coolers upon arrival at lab

☐ Check here if Bodycote is required to report results directly to a regulatory body (Please include contact information)

☐ Check here if you're testing POTABLE WATER for **HUMAN CONSUMPTION.**

Please indicate which regulations you are required to meet: _____

	Sample Identification	Location	Depth IN CM M	Date/Time Sampled	Matrix	Sampling Method	Number of Containers HOLD	Enter tests above (✔ relevant samples below)
1	Elsa Fuel Storage #2. Below Wall							
2	Fuel Storage Station #3		0.5-1					
3	Elsa Fuel Storage area #4		0-0.5					
4	ONEK Oil Stain North							
5	ONEK Oil Stown foundation							
6	ONEK Oil Stown South							
7	Waste Oil Storage #1 TP2.							
8			-					
9			-					
10			-					
11			-					
12			-					
13			-					
14			-					
15			-					

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

Page _____ of _____

Form No. 0006 (Rev. 04/07)

Bodycote TESTING GROUP

Report Transmission Cover Page

Bill To:	Access Mining Consultants Ltd.	Project:	
Report To:	Access Mining Consultants Ltd.	ID:	ALEX-08-ESP-01-T
	#3 Calcite Business Centre	Name:	Hydrocarbon Assessment
	151 Industrial Road	Location:	Elsa Special Project
	Whitehorse, YT, Canada	LSD:	
	Y1A 2V3	P.O.:	4692-ACG
Attn:	Kurt Neunherz	Acct code:	
Sampled By:	KN		
Company:	ACG		

Lot ID:	**647091**
Approval Status:	Approved
Invoice Frequency:	by Lot
COD Status:	
Control Number:	
Date Received:	Oct 6, 2008
Date Reported:	Oct 14, 2008
Report Number:	1157595

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:

Reports associated with this Lot

Id/Format/Report Date	Id/Format/Report Date	Id/Format/Report Date

Bodycote TESTING GROUP

Sample Custody

Bill To:	Access Mining Consultants Ltd.	Project:	
Report To:	Access Mining Consultants Ltd.	ID:	ALEX-08-ESP-01-T
	#3 Calcite Business Centre	Name:	Hydrocarbon Assessment
	151 Industrial Road	Location:	Elsa Special Project
	Whitehorse, YT, Canada	LSD:	
	Y1A 2V3	P.O.:	4692-ACG
Attn:	Kurt Neunherz	Acct code:	
Sampled By:	KN		
Company:	ACG		

Lot ID:	**647091**
Control Number:	
Date Received:	Oct 6, 2008
Date Reported:	Oct 14, 2008
Report Number:	1157595

Sample Disposal Date: November 13, 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 _____

Bodycote TESTING GROUP

Analytical Report

Bill To:	Access Mining Consultants Ltd.	Project:	
Report To:	Access Mining Consultants Ltd.	ID:	ALEX-08-ESP-01-T
	#3 Calcite Business Centre	Name:	Hydrocarbon Assessment
	151 Industrial Road	Location:	Elsa Special Project
	Whitehorse, YT, Canada	LSD:	
	Y1A 2V3	P.O.:	4692-ACG
Attn:	Kurt Neunherz	Acct code:	
Sampled By:	KN		
Company:	ACG		

Lot ID:	**647091**
Control Number:	
Date Received:	Oct 6, 2008
Date Reported:	Oct 14, 2008
Report Number:	1157595

	Reference Number	647091-1	647091-2	647091-3	
	Sample Date	Sep 29, 2008	Sep 29, 2008	Oct 02, 2008	
	Sample Location	Keno 700	Onek	Elsa	
	Sample Description	Keno 700 Generators Shack	Onek Generators Shack	Fuel Storage Area #2 Near Pump	
	Matrix	Soil	Soil	Soil	
Analyte		**Units**	**Results**	**Results**	**Results**	Nominal Detection Limit
Extractable Petroleum Hydrocarbons - Soil						
EPHs10-19	Dry Weight	ug/g	6360	2290	22500	20
EPHs19-32	Dry Weight	ug/g	31800	813	7190	20
Moisture						
Moisture	Soil % Moisture	%	9.08	11.40	11.90	

Bodycote TESTING GROUP

Analytical Report

Bill To:	Access Mining Consultants Ltd.	Project:	
Report To:	Access Mining Consultants Ltd.	ID:	ALEX-08-ESP-01-T
	#3 Calcite Business Centre	Name:	Hydrocarbon Assessment
	151 Industrial Road	Location:	Elsa Special Project
	Whitehorse, YT, Canada	LSD:	
	Y1A 2V3	P.O.:	4692-ACG
Attn:	Kurt Neunherz	Acct code:	
Sampled By:	KN		
Company:	ACG		

Lot ID:	**647091**
Control Number:	
Date Received:	Oct 6, 2008
Date Reported:	Oct 14, 2008
Report Number:	1157595

Reference Number		647091-1	647091-4	647091-6
Sample Date		Sep 29, 2008	Oct 02, 2008	Oct 02, 2008
Sample Location		Keno 700	Elsa	Elsa
Sample Description		Keno 700 Generators Shack	House AST Fill Pipe	Fuel Storage Area #4 0.5-1m
Matrix		Soil	Soil	Soil

Analyte		Units	Results	Results	Results	Nominal Detection Limit
Hot Water Soluble						
Boron	Water Soluble	mg/kg	0.4	0.3	0.9	0.1
Metals Strong Acid Digestion						
Mercury	Strong Acid Extractable	mg/kg	0.94	0.08	0.06	0.01
Antimony	Strong Acid Extractable	mg/kg	171	12.3	4.2	0.2
Arsenic	Strong Acid Extractable	mg/kg	1700	167	55.1	0.2
Barium	Strong Acid Extractable	mg/kg	251	104	324	1
Beryllium	Strong Acid Extractable	mg/kg	0.2	0.4	0.5	0.1
Cadmium	Strong Acid Extractable	mg/kg	174	50.2	29.5	0.01
Chromium	Strong Acid Extractable	mg/kg	39.6	19.6	21.9	0.5
Cobalt	Strong Acid Extractable	mg/kg	54.6	18.7	23.8	0.1
Copper	Strong Acid Extractable	mg/kg	481	79	87	1
Lead	Strong Acid Extractable	mg/kg	24900	1670	343	0.1
Molybdenum	Strong Acid Extractable	mg/kg	5	3	2	1
Nickel	Strong Acid Extractable	mg/kg	45.0	54.3	62.0	0.5
Selenium	Strong Acid Extractable	mg/kg	1.2	2.1	1.2	0.3
Silver	Strong Acid Extractable	mg/kg	237	77.5	21.2	0.1
Thallium	Strong Acid Extractable	mg/kg	0.25	0.46	0.82	0.05
Tin	Strong Acid Extractable	mg/kg	8	2	2	1
Uranium	Strong Acid Extractable	mg/kg	1.1	1	2.0	0.5
Vanadium	Strong Acid Extractable	mg/kg	15.5	15.3	37.5	0.1
Zinc	Strong Acid Extractable	mg/kg	16700	3900	2150	1

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Analytical Report

Bill To:	Access Mining Consultants Ltd.	Project:	
Report To:	Access Mining Consultants Ltd.	ID:	ALEX-08-ESP-01-T
	#3 Calcite Business Centre	Name:	Hydrocarbon Assessment
	151 Industrial Road	Location:	Elsa Special Project
	Whitehorse, YT, Canada	LSD:	
	Y1A 2V3	P.O.:	4692-ACG
Attn:	Kurt Neunherz	Acct code:	
Sampled By:	KN		
Company:	ACG		

Lot ID:	**647091**
Control Number:	
Date Received:	Oct 6, 2008
Date Reported:	Oct 14, 2008
Report Number:	1157595

Reference Number		647091-3	647091-4	647091-6
Sample Date		Oct 02, 2008	Oct 02, 2008	Oct 02, 2008
Sample Location		Elsa	Elsa	Elsa
Sample Description		Fuel Storage Area #2 Near Pump	House AST Fill Pipe	Fuel Storage Area #4 0.5-1m
Matrix		Soil	Soil	Soil

Analyte		Units	Results	Results	Results	Nominal Detection Limit
Mono-Aromatic Hydrocarbons - Soil						
Benzene	Dry Weight	ug/g	0.05	<0.02	<0.02	0.02
Toluene	Dry Weight	ug/g	0.47	<0.05	<0.05	0.05
Ethylbenzene	Dry Weight	ug/g	0.13	<0.05	<0.05	0.05
Total Xylenes (m,p,o)	Dry Weight	ug/g	1.09	0.11	0.32	0.05
Styrene	Dry Weight	ug/g	<0.05	<0.05	<0.05	0.05
Methyl t-Butyl Ether	Dry Weight	ug/g	<0.05	<0.05	<0.05	0.05
Volatile Petroleum Hydrocarbons - Soil						
VHs6-10	Dry Weight	ug/g	<50	320	3130	50
VPHs (VHs6-10 minus BTEX)	Dry Weight	ug/g	<50	320	3130	50

Bodycote TESTING GROUP

Analytical Report

Bill To:	Access Mining Consultants Ltd.	Project:	
Report To:	Access Mining Consultants Ltd.	ID:	ALEX-08-ESP-01-T
	#3 Calcite Business Centre	Name:	Hydrocarbon Assessment
	151 Industrial Road	Location:	Elsa Special Project
	Whitehorse, YT, Canada	LSD:	
	Y1A 2V3	P.O.:	4692-ACG
Attn:	Kurt Neunherz	Acct code:	
Sampled By:	KN		
Company:	ACG		

Lot ID:	**647091**
Control Number:	
Date Received:	Oct 6, 2008
Date Reported:	Oct 14, 2008
Report Number:	1157595

Reference Number		647091-4	647091-5	647091-6
Sample Date		Oct 02, 2008	Oct 02, 2008	Oct 02, 2008
Sample Location		Elsa	Elsa	Elsa
Sample Description		House AST Fill Pipe	Waste Oil Storage #3 0-0.3m	Fuel Storage Area #4 0.5-1m
Matrix		Soil	Soil	Soil

Analyte		Units	Results	Results	Results	Nominal Detection Limit
Extractable Petroleum Hydrocarbons - Soil						
EPHs10-19	Dry Weight	ug/g	16100	1610	41800	20
EPHs19-32	Dry Weight	ug/g	1370	42200	3580	20
Moisture						
Moisture	Soil % Moisture	%	9.50	13.90	28.30	

Bodycote TESTING GROUP

Analytical Report

Bill To:	Access Mining Consultants Ltd.	Project:	
Report To:	Access Mining Consultants Ltd.	ID:	ALEX-08-ESP-01-T
	#3 Calcite Business Centre	Name:	Hydrocarbon Assessment
	151 Industrial Road	Location:	Elsa Special Project
	Whitehorse, YT, Canada	LSD:	
	Y1A 2V3	P.O.:	4692-ACG
Attn:	Kurt Neunherz	Acct code:	
Sampled By:	KN		
Company:	ACG		

Lot ID:	**647091**
Control Number:	
Date Received:	Oct 6, 2008
Date Reported:	Oct 14, 2008
Report Number:	1157595

Reference Number		647091-7	647091-8	647091-9
Sample Date		Oct 02, 2008	Oct 02, 2008	Oct 02, 2008
Sample Location		Elsa	Elsa	Elsa
Sample Description		Fuel Storage Area #3 0-0.5m	Waste Oil Storage #1 0-0.5m	AST by Houses
Matrix		Soil	Soil	Soil

Analyte		Units	Results	Results	Results	Nominal Detection Limit
Extractable Petroleum Hydrocarbons - Soil						
EPHs10-19	Dry Weight	ug/g	48300	2300	3930	20
EPHs19-32	Dry Weight	ug/g	13400	44300	216	20
Moisture						
Moisture	Soil % Moisture	%	11.10	21.00	14.80	

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Analytical Report

Bill To:	Access Mining Consultants Ltd.	Project:	
Report To:	Access Mining Consultants Ltd.	ID:	ALEX-08-ESP-01-T
	#3 Calcite Business Centre	Name:	Hydrocarbon Assessment
	151 Industrial Road	Location:	Elsa Special Project
	Whitehorse, YT, Canada	LSD:	
	Y1A 2V3	P.O.:	4692-ACG
Attn:	Kurt Neunherz	Acct code:	
Sampled By:	KN		
Company:	ACG		

Lot ID:	**647091**
Control Number:	
Date Received:	Oct 6, 2008
Date Reported:	Oct 14, 2008
Report Number:	1157595

Reference Number		647091-7	647091-9	647091-10
Sample Date		Oct 02, 2008	Oct 02, 2008	Oct 02, 2008
Sample Location		Elsa	Elsa	Elsa
Sample Description		Fuel Storage Area #3 0-0.5m	AST by Houses	Fuel Storage Area #4 2.5m
Matrix		Soil	Soil	Soil

Analyte		Units	Results	Results	Results	Nominal Detection Limit
Mono-Aromatic Hydrocarbons - Soil						
Benzene	Dry Weight	ug/g	0.08	<0.02	<0.02	0.02
Toluene	Dry Weight	ug/g	1.0	<0.05	<0.05	0.05
Ethylbenzene	Dry Weight	ug/g	0.38	<0.05	<0.05	0.05
Total Xylenes (m,p,o)	Dry Weight	ug/g	7.87	<0.05	2.95	0.05
Styrene	Dry Weight	ug/g	<0.05	<0.05	<0.05	0.05
Methyl t-Butyl Ether	Dry Weight	ug/g	<0.05	<0.05	<0.05	0.05
Volatile Petroleum Hydrocarbons - Soil						
VHs6-10	Dry Weight	ug/g	830	80	1950	50
VPHs (VHs6-10 minus BTEX)	Dry Weight	ug/g	820	80	1940	50

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Analytical Report

Bill To:	Access Mining Consultants Ltd.	Project:	
Report To:	Access Mining Consultants Ltd.	ID:	ALEX-08-ESP-01-T
	#3 Calcite Business Centre	Name:	Hydrocarbon Assessment
	151 Industrial Road	Location:	Elsa Special Project
	Whitehorse, YT, Canada	LSD:	
	Y1A 2V3	P.O.:	4692-ACG
Attn:	Kurt Neunherz	Acct code:	
Sampled By:	KN		
Company:	ACG		

Lot ID:	**647091**
Control Number:	
Date Received:	Oct 6, 2008
Date Reported:	Oct 14, 2008
Report Number:	1157595

Reference Number	647091-8
Sample Date	Oct 02, 2008
Sample Location	Elsa
Sample Description	Waste Oil Storage #1 0-0.5m
Matrix	Soil

Analyte		Units	Results	Results	Results	Nominal Detection Limit
Hot Water Soluble						
Boron	Water Soluble	mg/kg	0.5			0.1
Metals Strong Acid Digestion						
Mercury	Strong Acid Extractable	mg/kg	0.35			0.01
Antimony	Strong Acid Extractable	mg/kg	110			0.2
Arsenic	Strong Acid Extractable	mg/kg	322			0.2
Barium	Strong Acid Extractable	mg/kg	147			1
Beryllium	Strong Acid Extractable	mg/kg	0.3			0.1
Cadmium	Strong Acid Extractable	mg/kg	57.7			0.01
Chromium	Strong Acid Extractable	mg/kg	14.0			0.5
Cobalt	Strong Acid Extractable	mg/kg	6.0			0.1
Copper	Strong Acid Extractable	mg/kg	293			1
Lead	Strong Acid Extractable	mg/kg	13000			0.1
Molybdenum	Strong Acid Extractable	mg/kg	2			1
Nickel	Strong Acid Extractable	mg/kg	18.2			0.5
Selenium	Strong Acid Extractable	mg/kg	1.4			0.3
Silver	Strong Acid Extractable	mg/kg	239			0.1
Thallium	Strong Acid Extractable	mg/kg	1.77			0.05
Tin	Strong Acid Extractable	mg/kg	7			1
Uranium	Strong Acid Extractable	mg/kg	1.8			0.5
Vanadium	Strong Acid Extractable	mg/kg	19.2			0.1
Zinc	Strong Acid Extractable	mg/kg	4330			1

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Analytical Report

Bill To:	Access Mining Consultants Ltd.	Project:	
Report To:	Access Mining Consultants Ltd.	ID:	ALEX-08-ESP-01-T
	#3 Calcite Business Centre	Name:	Hydrocarbon Assessment
	151 Industrial Road	Location:	Elsa Special Project
	Whitehorse, YT, Canada	LSD:	
	Y1A 2V3	P.O.:	4692-ACG
Attn:	Kurt Neunherz	Acct code:	
Sampled By:	KN		
Company:	ACG		

Lot ID:	**647091**
Control Number:	
Date Received:	Oct 6, 2008
Date Reported:	Oct 14, 2008
Report Number:	1157595

Reference Number		647091-10	647091-11	647091-12
Sample Date		Oct 02, 2008	Oct 02, 2008	Sep 29, 2008
Sample Location		Elsa	Elsa	Keno 700
Sample Description		Fuel Storage Area #4 2.5m	Fuel Storage Area #3 2-2.5m	Keno 700 Oil Change Area
Matrix		Soil	Soil	Soil

Analyte		Units	Results	Results	Results	Nominal Detection Limit
Extractable Petroleum Hydrocarbons - Soil						
EPHs10-19	Dry Weight	ug/g	16900	312	510	20
EPHs19-32	Dry Weight	ug/g	1050	603	3250	20
Moisture						
Moisture	Soil % Moisture	%	8.07	25.70	12.90	

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Analytical Report

Bill To:	Access Mining Consultants Ltd.	Project:	
Report To:	Access Mining Consultants Ltd.	ID:	ALEX-08-ESP-01-T
	#3 Calcite Business Centre	Name:	Hydrocarbon Assessment
	151 Industrial Road	Location:	Elsa Special Project
	Whitehorse, YT, Canada	LSD:	
	Y1A 2V3	P.O.:	4692-ACG
Attn:	Kurt Neunherz	Acct code:	
Sampled By:	KN		
Company:	ACG		

Lot ID:	**647091**
Control Number:	
Date Received:	Oct 6, 2008
Date Reported:	Oct 14, 2008
Report Number:	1157595

Reference Number	647091-11
Sample Date	Oct 02, 2008
Sample Location	Elsa
Sample Description	Fuel Storage Area #3 2-2.5m
Matrix	Soil

Analyte		Units	Results	Results	Results	Nominal Detection Limit
Mono-Aromatic Hydrocarbons - Soil						
Benzene	Dry Weight	ug/g	0.08			0.02
Toluene	Dry Weight	ug/g	0.1			0.05
Ethylbenzene	Dry Weight	ug/g	0.07			0.05
Total Xylenes (m,p,o)	Dry Weight	ug/g	0.24			0.05
Styrene	Dry Weight	ug/g	<0.05			0.05
Methyl t-Butyl Ether	Dry Weight	ug/g	<0.05			0.05
Volatile Petroleum Hydrocarbons - Soil						
VHs6-10	Dry Weight	ug/g	<50			50
VPHs (VHs6-10 minus BTEX)	Dry Weight	ug/g	<50			50

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Analytical Report

Bill To:	Access Mining Consultants Ltd.	Project:	
Report To:	Access Mining Consultants Ltd.	ID:	ALEX-08-ESP-01-T
	#3 Calcite Business Centre	Name:	Hydrocarbon Assessment
	151 Industrial Road	Location:	Elsa Special Project
	Whitehorse, YT, Canada	LSD:	
	Y1A 2V3	P.O.:	4692-ACG
Attn:	Kurt Neunherz	Acct code:	
Sampled By:	KN		
Company:	ACG		

Lot ID:	**647091**
Control Number:	
Date Received:	Oct 6, 2008
Date Reported:	Oct 14, 2008
Report Number:	1157595

Reference Number	647091-13
Sample Date	Oct 02, 2008
Sample Location	Elsa
Sample Description	Waste Oil Storage #1 0.5-1
Matrix	Soil

Analyte		Units	Results	Results	Results	Nominal Detection Limit
Extractable Petroleum Hydrocarbons - Soil						
EPHs10-19	Dry Weight	ug/g	<20			20
EPHs19-32	Dry Weight	ug/g	<20			20
Moisture						
Moisture	Soil % Moisture	%	11.30			

Approved by: Andrew Garrard

Andrew Garrard, BSc
Operations Manager

Bodycote TESTING GROUP

Methodology and Notes

Bill To:	Access Mining Consultants Ltd.	Project:	
Report To:	Access Mining Consultants Ltd.	ID:	ALEX-08-ESP-01-T
	#3 Calcite Business Centre	Name:	Hydrocarbon Assessment
	151 Industrial Road	Location:	Elsa Special Project
	Whitehorse, YT, Canada	LSD:	
	Y1A 2V3	P.O.:	4692-ACG
Attn:	Kurt Neunherz	Acct code:	
Sampled By:	KN		
Company:	ACG		

Lot ID:	**647091**
Control Number:	
Date Received:	Oct 6, 2008
Date Reported:	Oct 14, 2008
Report Number:	1157595

Method of Analysis

Method Name	Reference		Method	Date Analysis Started	Location
Boron in general soil	McKeague	*	Hot Water Soluble Boron - Azomethine -H Method, 4.61	09-Oct-08	BTG Edmonton
BTEX-VPH - Soil	BCELM	*	Volatile Hydrocarbons in Solids by GC/FID, VH Solids	08-Oct-08	BTG Surrey
EPH - Soil	BCELM	*	Extractable Petroleum Hydrocarbons (EPH) in Solids by GC/FID, EPH Solids	08-Oct-08	BTG Surrey
Mercury (Hot Block) in Soil	US EPA	*	Determination of Hg in Sediment by Cold Vapor Atomic Absorption Spec, 245.5	09-Oct-08	BTG Edmonton
Metals ICP-MS (Hot Block) in soil	SW-846	*	Acid Digestion of Sediments, Sludges, and Soils, EPA 3050B	09-Oct-08	BTG Edmonton

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

References

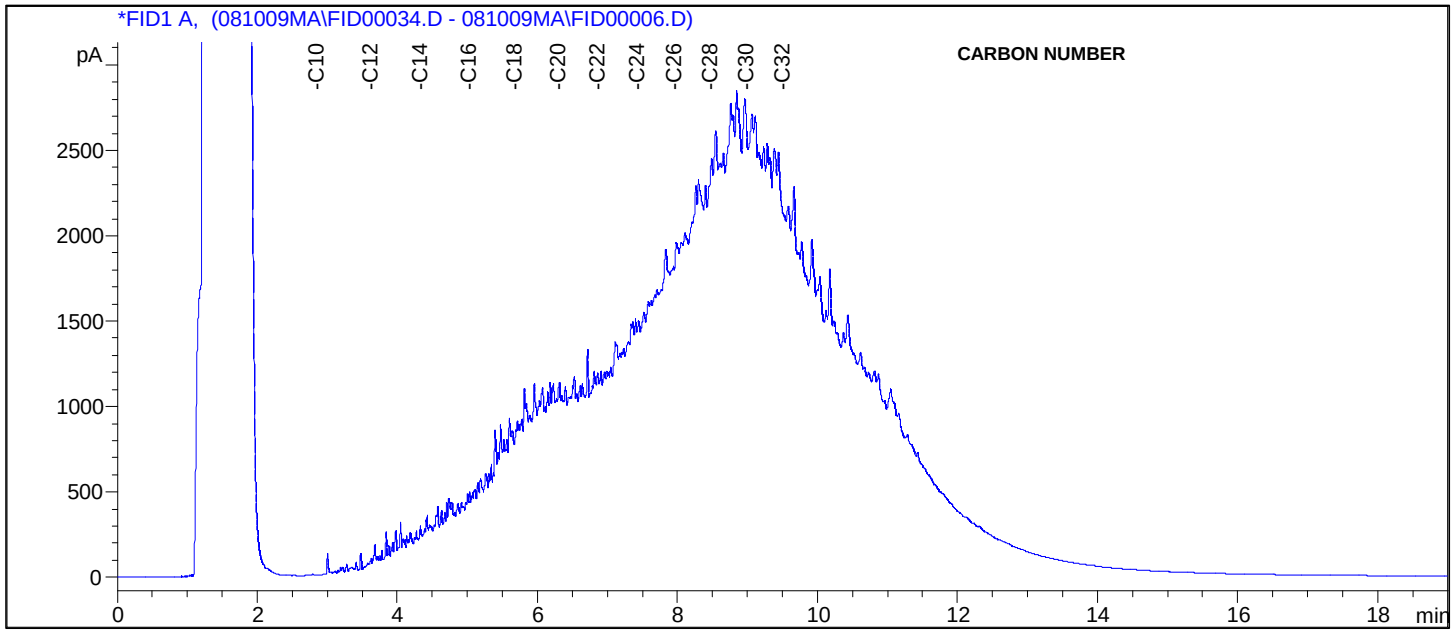
BCELM	B.C. Environmental Laboratory Manual
McKeague	Manual on Soil Sampling and Methods of Analysis
SW-846	Test Methods for Evaluating Solid Waste
US EPA	US Environmental Protection Agency Test Methods

Comments:

Hydrocarbon Chromatogram

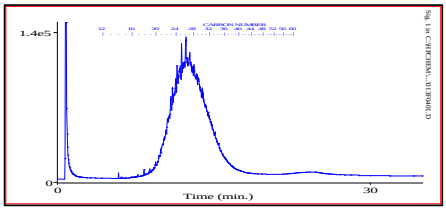
Bill To:	Access Mining Consultants Ltd.	Project ID:	ALEX-08-ESP-01-T	Lot ID:	**647091**
Report To:	Access Mining Consultants Ltd.	Name:	Hydrocarbon Assessment	Control Number:	
	#3 Calcite Business Centre	Location:	Elsa Special Project	Date Received:	Oct 6, 2008
	151 Industrial Road	LSD:		Date Reported:	
	Whitehorse, YT, Canada	P.O.:		Report Number:	
	Y1A 2V3				
Attn:	Kurt Neunherz				
Sampled by:	KN				
Company:	ACG				

NWL Number: 647091-1 Sample Description: Keno 700 Generators Shack
Sample Date: Sep 29, 2008

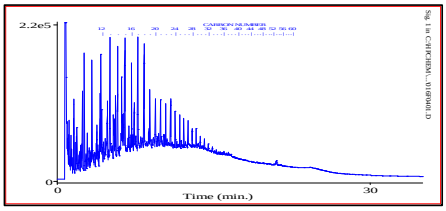


TYPICAL PRODUCT CHROMATOGRAMS

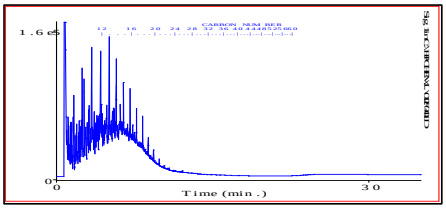
Motor Oil 10W30



Unweathered Crude



Winter Diesel



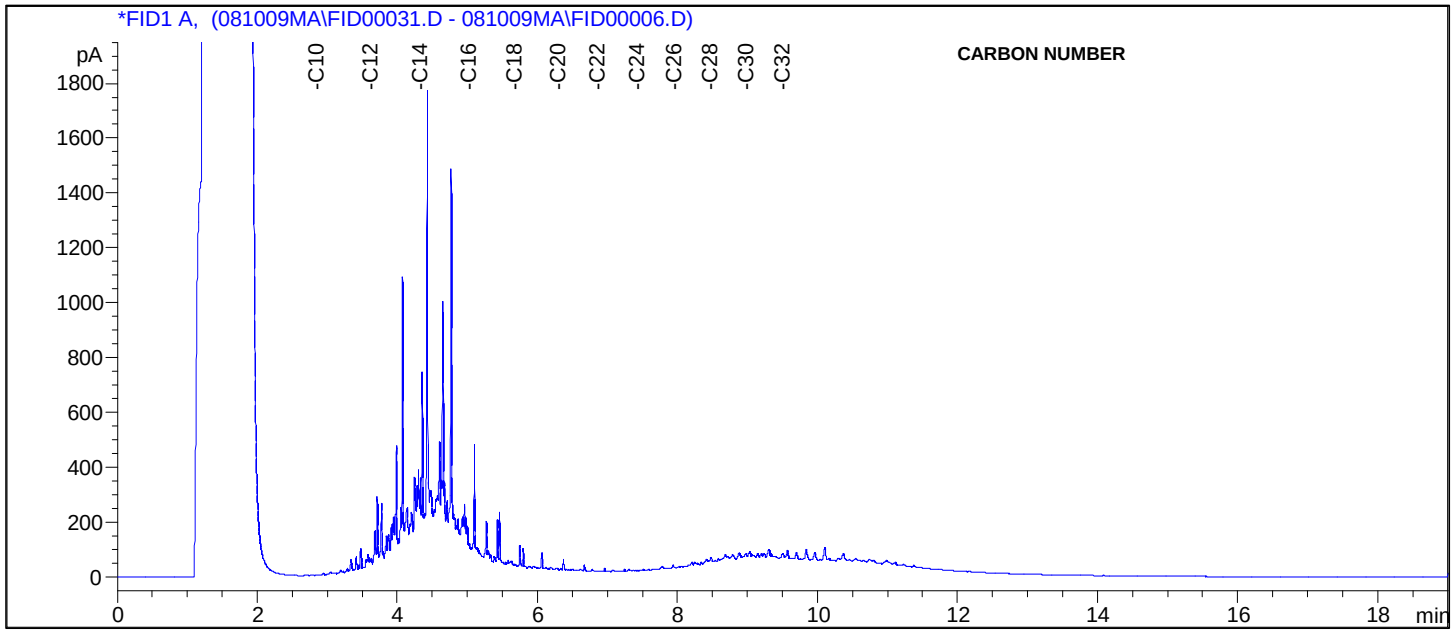
Product Carbon Number Ranges

Gasoline	C4-C12	Kerosene	C7-C16	Lubricating Oils	C20-C40
Varsol	C8-C12	Diesel	C8-C22	Crude Oils	C3-C60+

Hydrocarbon Chromatogram

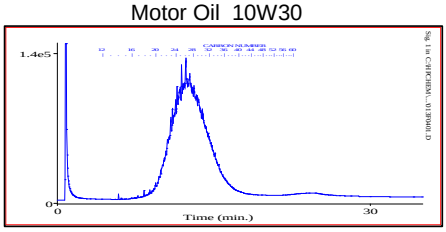
Bill To:	Access Mining Consultants Ltd.	Project ID:	ALEX-08-ESP-01-T	Lot ID:	**647091**
Report To:	Access Mining Consultants Ltd.	Name:	Hydrocarbon Assessment	Control Number:	
	#3 Calcite Business Centre	Location:	Elsa Special Project	Date Received:	Oct 6, 2008
	151 Industrial Road	LSD:		Date Reported:	
	Whitehorse, YT, Canada	P.O.:		Report Number:	
	Y1A 2V3				
Attn:	Kurt Neunherz				
Sampled by:	KN				
Company:	ACG				

NWL Number: 647091-2 Sample Description: Onek Generators Shack
Sample Date: Sep 29, 2008

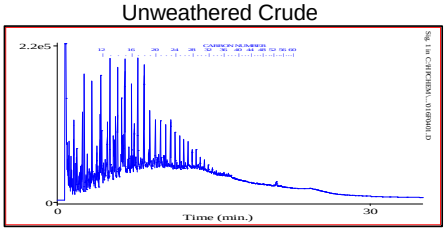


TYPICAL PRODUCT CHROMATOGRAMS

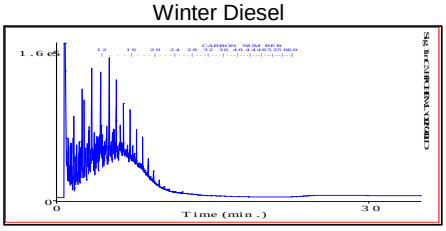
Motor Oil 10W30



Unweathered Crude



Winter Diesel



Product Carbon Number Ranges

Gasoline	C4-C12	Kerosene	C7-C16	Lubricating Oils	C20-C40
Varsol	C8-C12	Diesel	C8-C22	Crude Oils	C3-C60+

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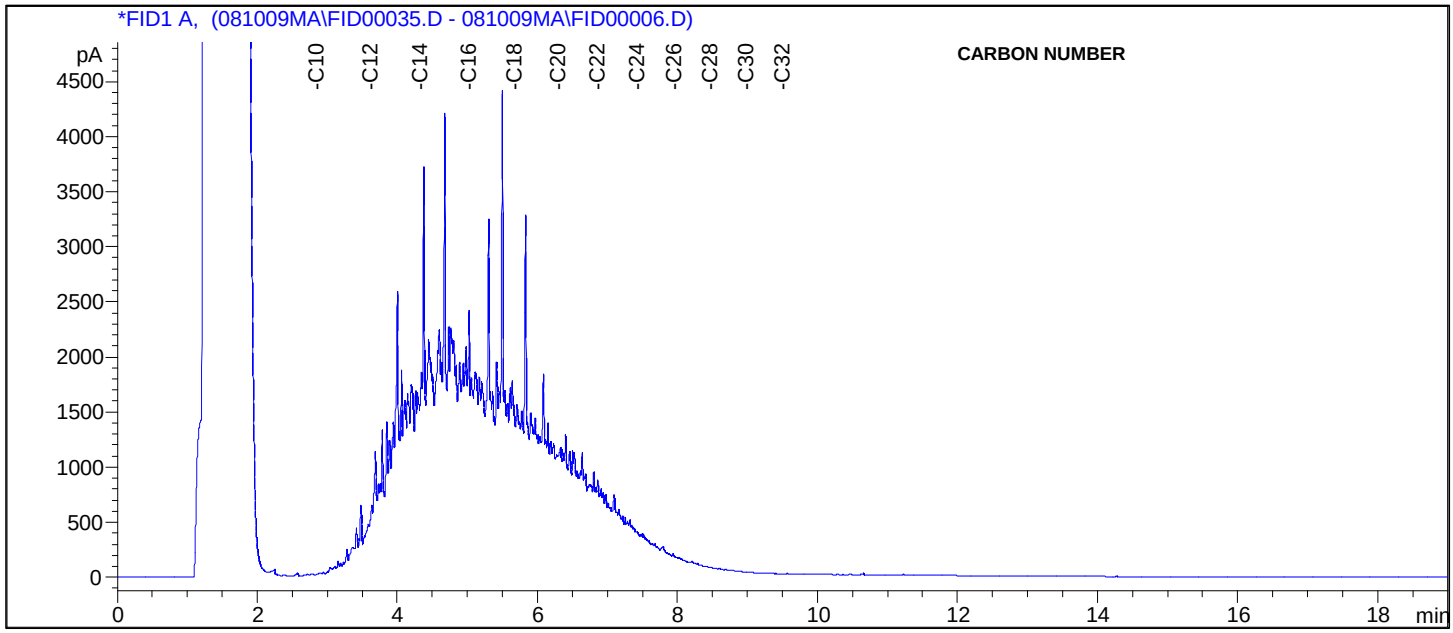
Hydrocarbon Chromatogram

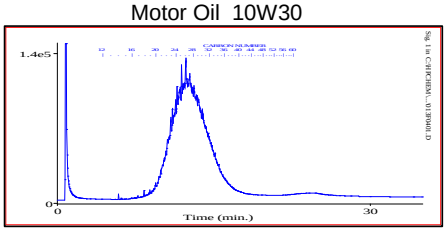
Bill To:	Access Mining Consultants Ltd.	Project ID:	ALEX-08-ESP-01-T	Lot ID:	**647091**
Report To:	Access Mining Consultants Ltd.	Name:	Hydrocarbon Assessment	Control Number:	
	#3 Calcite Business Centre	Location:	Elsa Special Project	Date Received:	Oct 6, 2008
	151 Industrial Road	LSD:		Date Reported:	
	Whitehorse, YT, Canada	P.O.:		Report Number:	
	Y1A 2V3				
Attn:	Kurt Neunherz				
Sampled by:	KN				
Company:	ACG				

NWL Number: 647091-3
Sample Date: Oct 2, 2008
Sample Description: Fuel Storage Area #2 Near Pump

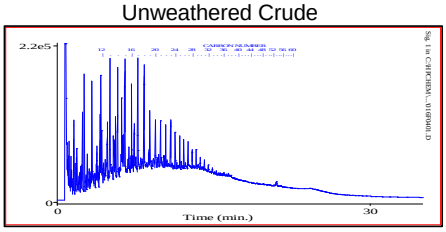


TYPICAL PRODUCT CHROMATOGRAMS

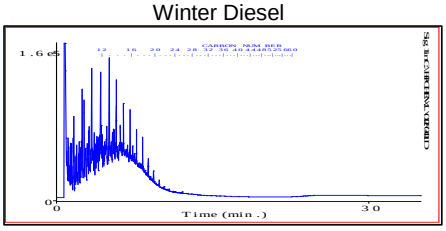
Motor Oil 10W30



Unweathered Crude



Winter Diesel



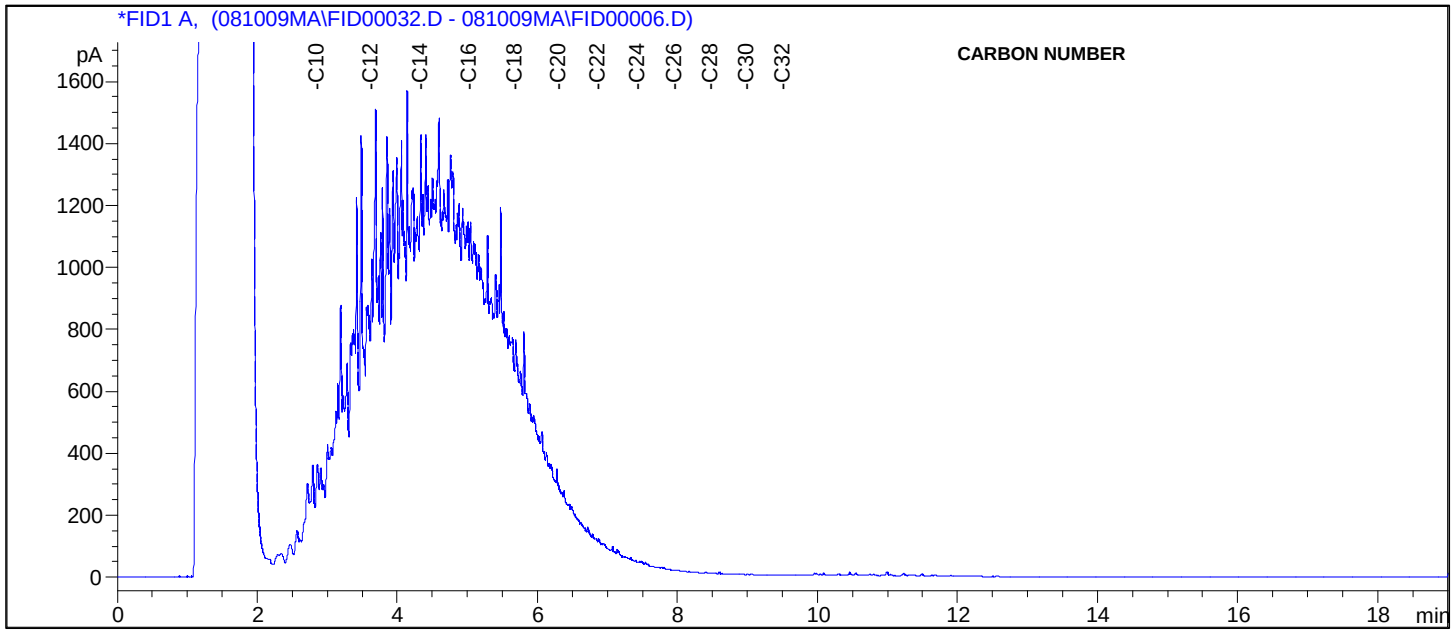
Product Carbon Number Ranges

Gasoline	C4-C12	Kerosene	C7-C16	Lubricating Oils	C20-C40
Varsol	C8-C12	Diesel	C8-C22	Crude Oils	C3-C60+

Hydrocarbon Chromatogram

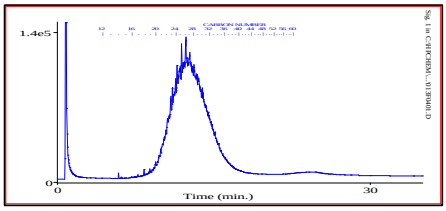
Bill To:	Access Mining Consultants Ltd.	Project ID:	ALEX-08-ESP-01-T	Lot ID:	**647091**
Report To:	Access Mining Consultants Ltd.	Name:	Hydrocarbon Assessment	Control Number:	
	#3 Calcite Business Centre	Location:	Elsa Special Project	Date Received:	Oct 6, 2008
	151 Industrial Road	LSD:		Date Reported:	
	Whitehorse, YT, Canada	P.O.:		Report Number:	
	Y1A 2V3				
Attn:	Kurt Neunherz				
Sampled by:	KN				
Company:	ACG				

NWL Number: 647091-4 Sample Description: House AST Fill Pipe
Sample Date: Oct 2, 2008

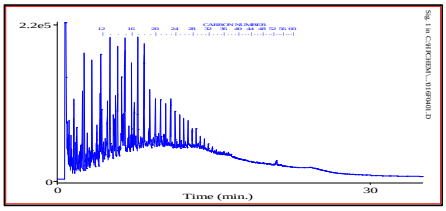


TYPICAL PRODUCT CHROMATOGRAMS

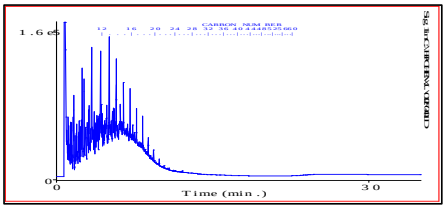
Motor Oil 10W30



Unweathered Crude



Winter Diesel



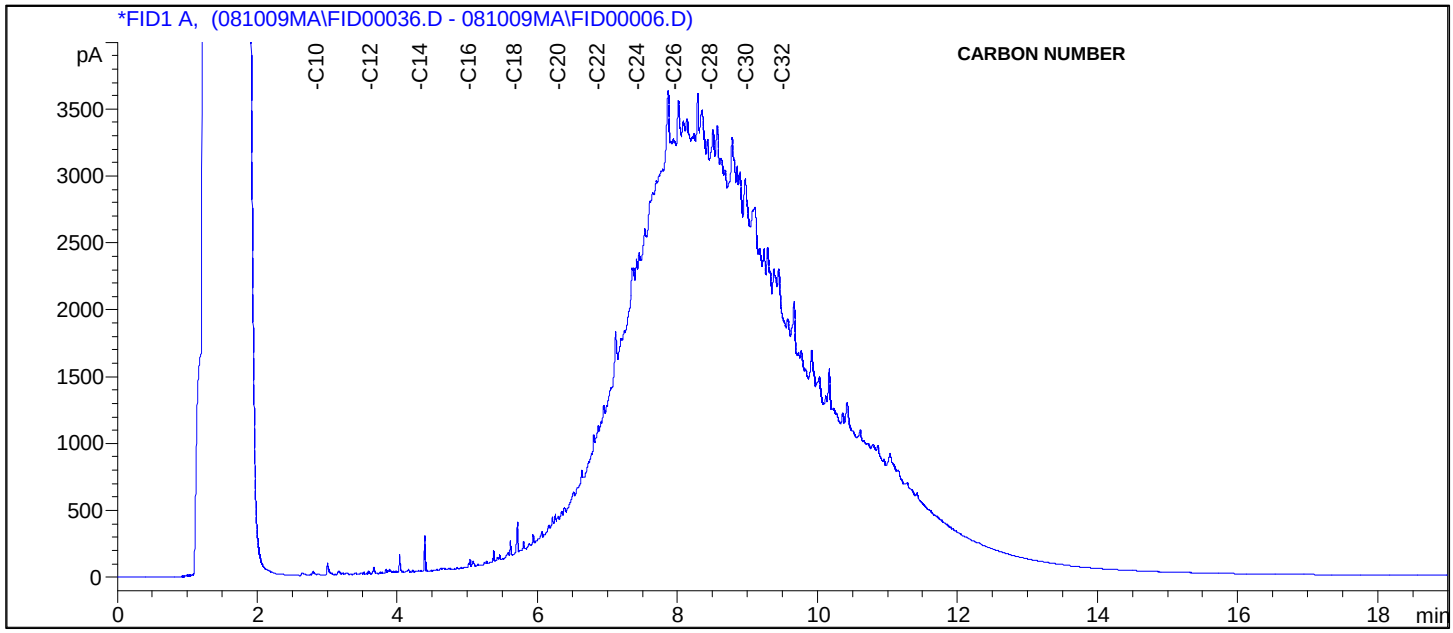
Product Carbon Number Ranges

Gasoline	C4-C12	Kerosene	C7-C16	Lubricating Oils	C20-C40
Varsol	C8-C12	Diesel	C8-C22	Crude Oils	C3-C60+

Hydrocarbon Chromatogram

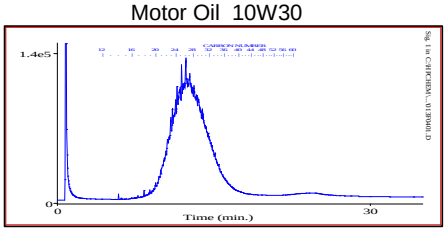
Bill To:	Access Mining Consultants Ltd.	Project ID:	ALEX-08-ESP-01-T	Lot ID:	**647091**
Report To:	Access Mining Consultants Ltd.	Name:	Hydrocarbon Assessment	Control Number:	
	#3 Calcite Business Centre	Location:	Elsa Special Project	Date Received:	Oct 6, 2008
	151 Industrial Road	LSD:		Date Reported:	
	Whitehorse, YT, Canada	P.O.:		Report Number:	
	Y1A 2V3				
Attn:	Kurt Neunherz				
Sampled by:	KN				
Company:	ACG				

NWL Number: 647091-5 Sample Description: Waste Oil Storage #3 0-0.3m
Sample Date: Oct 2, 2008

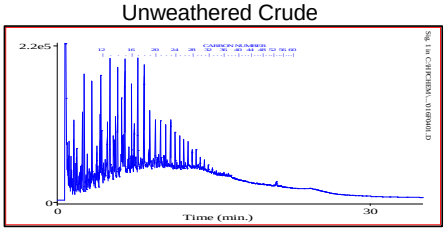


TYPICAL PRODUCT CHROMATOGRAMS

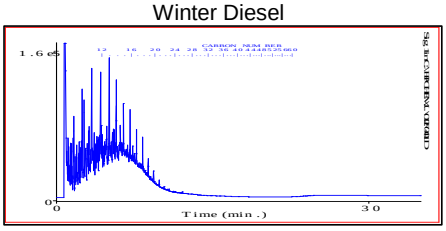
Motor Oil 10W30



Unweathered Crude



Winter Diesel



Product Carbon Number Ranges

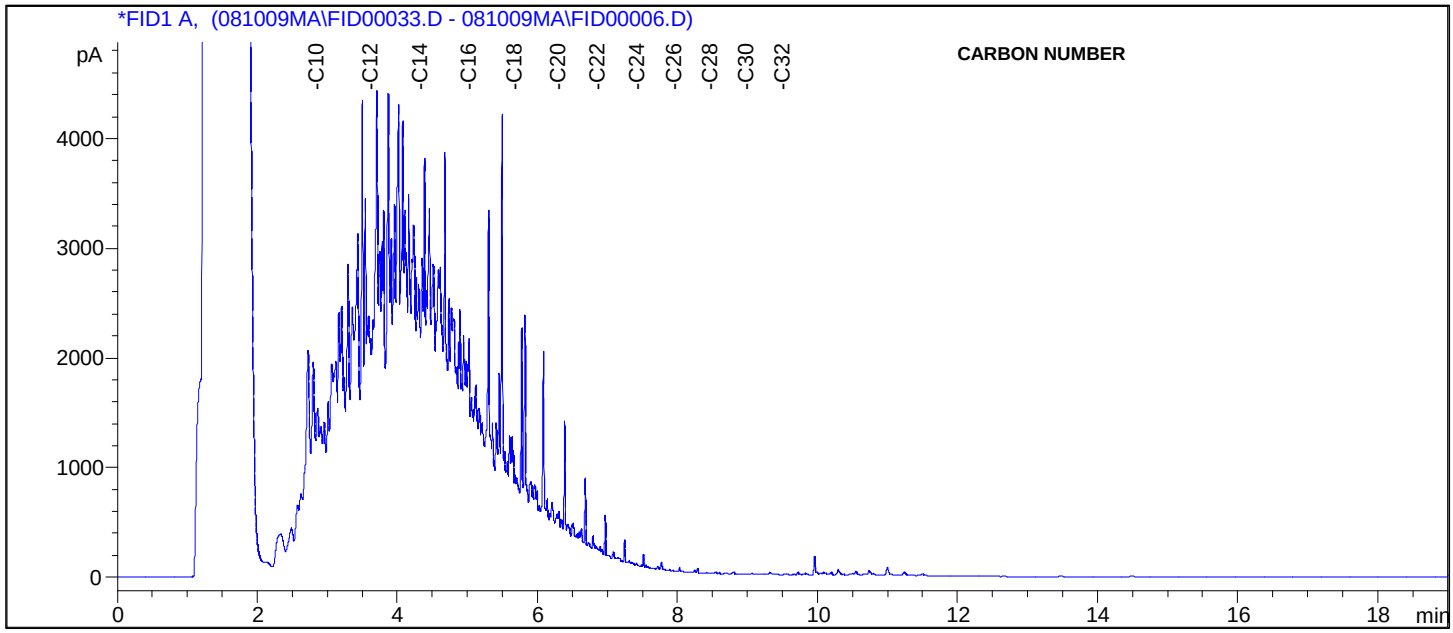
Gasoline	C4-C12	Kerosene	C7-C16	Lubricating Oils	C20-C40
Varsol	C8-C12	Diesel	C8-C22	Crude Oils	C3-C60+

Bodycote TESTING GROUP

Hydrocarbon Chromatogram

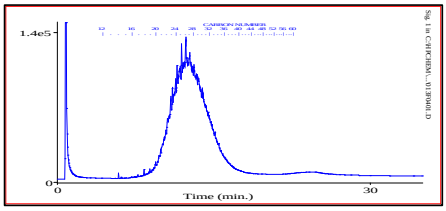
Bill To:	Access Mining Consultants Ltd.	Project ID:	ALEX-08-ESP-01-T	Lot ID:	**647091**
Report To:	Access Mining Consultants Ltd.	Name:	Hydrocarbon Assessment	Control Number:	
	#3 Calcite Business Centre	Location:	Elsa Special Project	Date Received:	Oct 6, 2008
	151 Industrial Road	LSD:		Date Reported:	
	Whitehorse, YT, Canada	P.O.:		Report Number:	
	Y1A 2V3				
Attn:	Kurt Neunherz				
Sampled by:	KN				
Company:	ACG				

NWL Number: 647091-6 Sample Description: Fuel Storage Area #4 0.5-1m
Sample Date: Oct 2, 2008



TYPICAL PRODUCT CHROMATOGRAMS

Motor Oil 10W30



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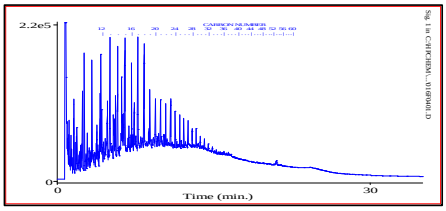
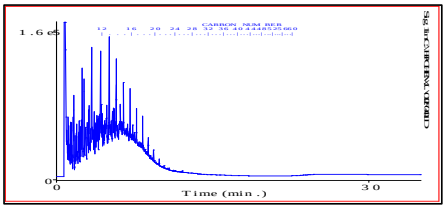


Winter Diesel



Product Carbon Number Ranges

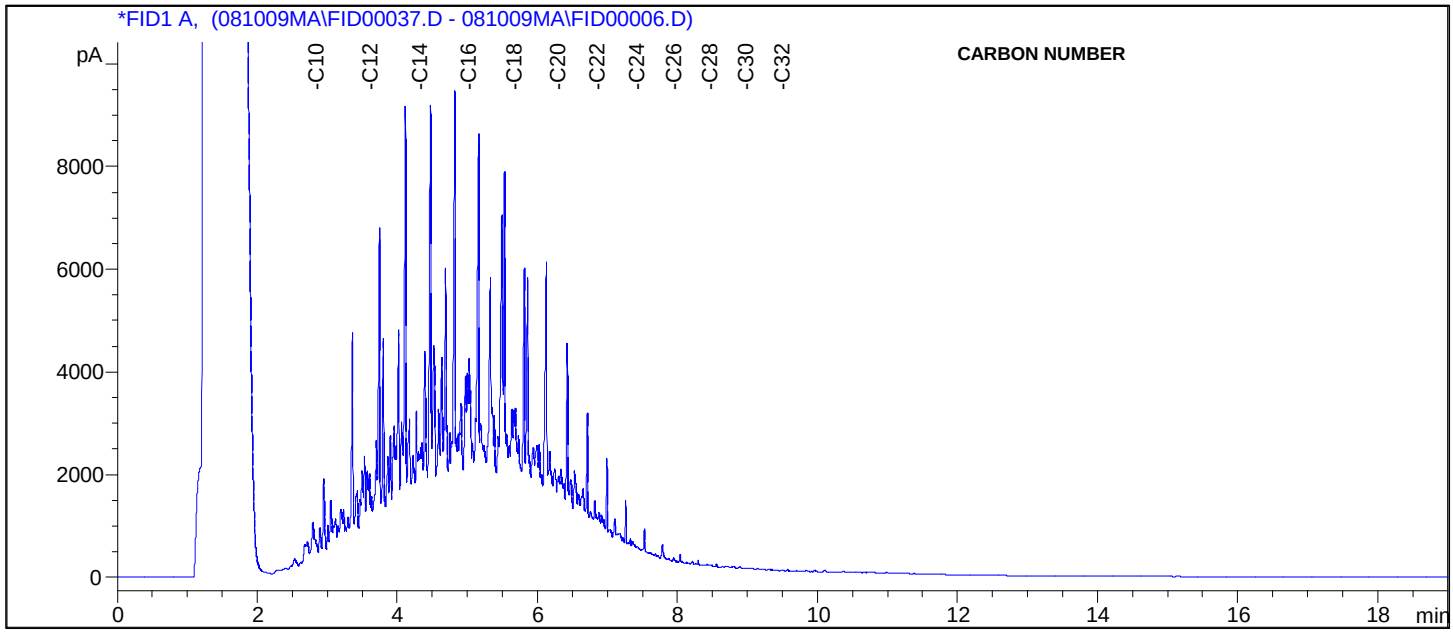
Gasoline	C4-C12	Kerosene	C7-C16	Lubricating Oils	C20-C40
Varsol	C8-C12	Diesel	C8-C22	Crude Oils	C3-C60+

Bodycote TESTING GROUP

Hydrocarbon Chromatogram

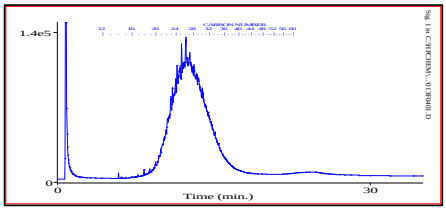
Bill To:	Access Mining Consultants Ltd.	Project ID:	ALEX-08-ESP-01-T	Lot ID:	**647091**
Report To:	Access Mining Consultants Ltd.	Name:	Hydrocarbon Assessment	Control Number:	
	#3 Calcite Business Centre	Location:	Elsa Special Project	Date Received:	Oct 6, 2008
	151 Industrial Road	LSD:		Date Reported:	
	Whitehorse, YT, Canada	P.O.:		Report Number:	
	Y1A 2V3				
Attn:	Kurt Neunherz				
Sampled by:	KN				
Company:	ACG				

NWL Number: 647091-7 Sample Description: Fuel Storage Area #3 0-0.5m
Sample Date: Oct 2, 2008

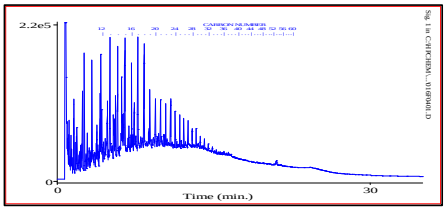


TYPICAL PRODUCT CHROMATOGRAMS

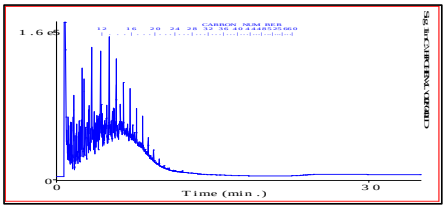
Motor Oil 10W30



Unweathered Crude



Winter Diesel



Product Carbon Number Ranges

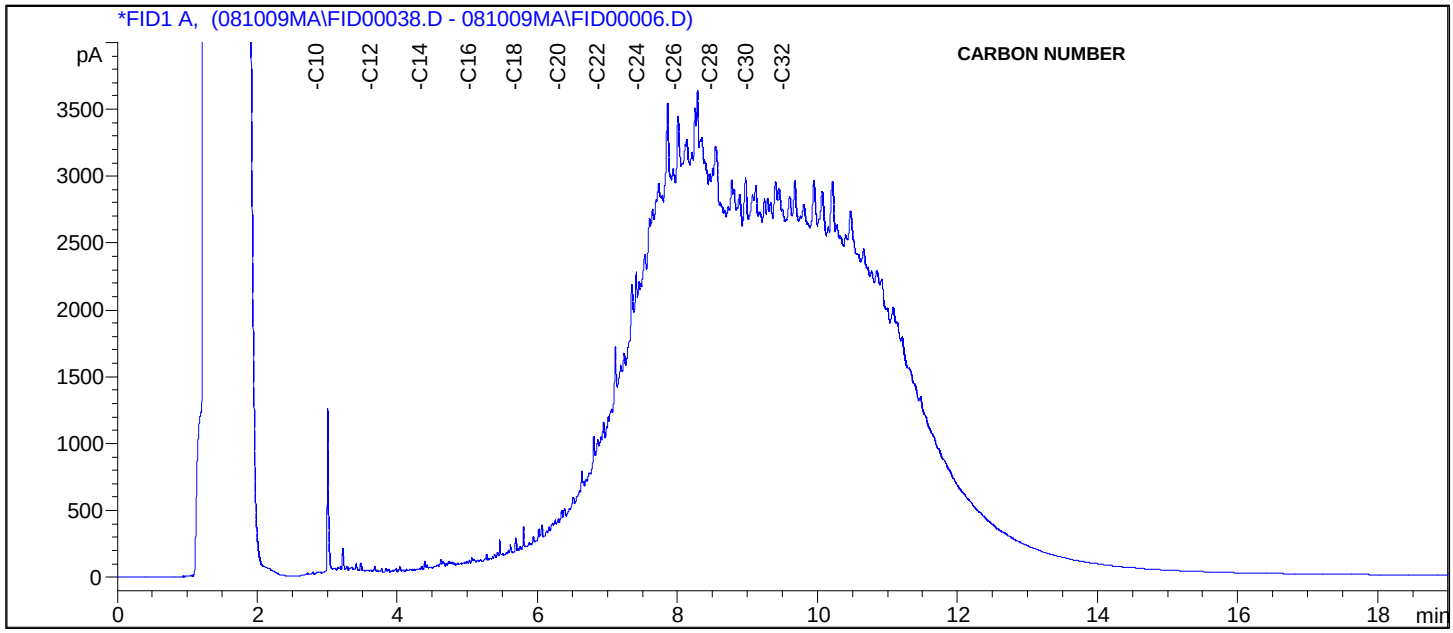
Gasoline	C4-C12	Kerosene	C7-C16	Lubricating Oils	C20-C40
Varsol	C8-C12	Diesel	C8-C22	Crude Oils	C3-C60+

Bodycote TESTING GROUP

Hydrocarbon Chromatogram

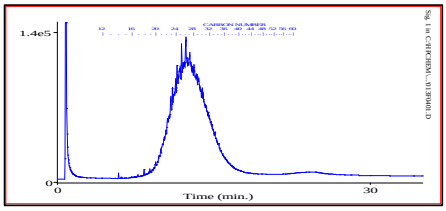
Bill To:	Access Mining Consultants Ltd.	Project ID:	ALEX-08-ESP-01-T	Lot ID:	**647091**
Report To:	Access Mining Consultants Ltd.	Name:	Hydrocarbon Assessment	Control Number:	
	#3 Calcite Business Centre	Location:	Elsa Special Project	Date Received:	Oct 6, 2008
	151 Industrial Road	LSD:		Date Reported:	
	Whitehorse, YT, Canada	P.O.:		Report Number:	
	Y1A 2V3				
Attn:	Kurt Neunherz				
Sampled by:	KN				
Company:	ACG				

NWL Number: 647091-8 Sample Description: Waste Oil Storage #1 0-0.5m
Sample Date: Oct 2, 2008

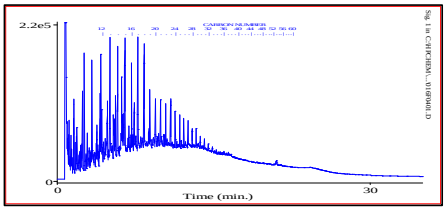


TYPICAL PRODUCT CHROMATOGRAMS

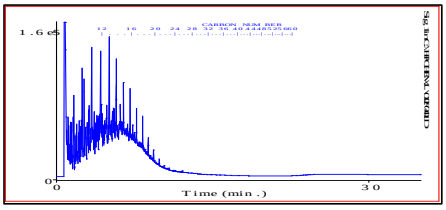
Motor Oil 10W30



Unweathered Crude



Winter Diesel



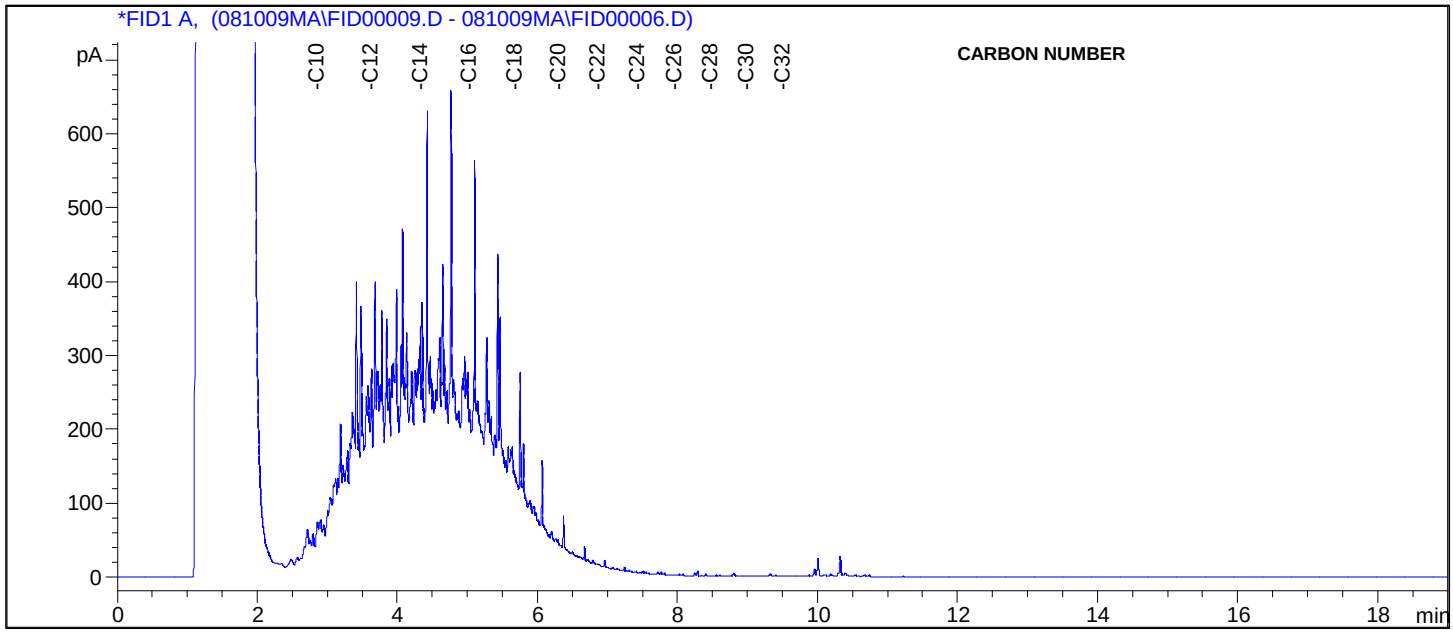
Product Carbon Number Ranges

Gasoline	C4-C12	Kerosene	C7-C16	Lubricating Oils	C20-C40
Varsol	C8-C12	Diesel	C8-C22	Crude Oils	C3-C60+

Hydrocarbon Chromatogram

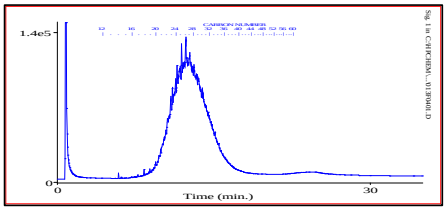
Bill To:	Access Mining Consultants Ltd.	Project ID:	ALEX-08-ESP-01-T	Lot ID:	**647091**
Report To:	Access Mining Consultants Ltd.	Name:	Hydrocarbon Assessment	Control Number:	
	#3 Calcite Business Centre	Location:	Elsa Special Project	Date Received:	Oct 6, 2008
	151 Industrial Road	LSD:		Date Reported:	
	Whitehorse, YT, Canada	P.O.:		Report Number:	
	Y1A 2V3				
Attn:	Kurt Neunherz				
Sampled by:	KN				
Company:	ACG				

NWL Number: 647091-9 Sample Description: AST by Houses
Sample Date: Oct 2, 2008



TYPICAL PRODUCT CHROMATOGRAMS

Motor Oil 10W30



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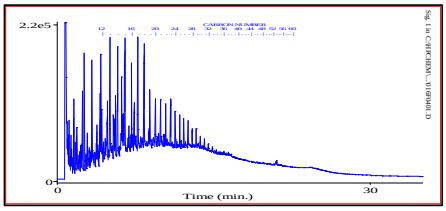
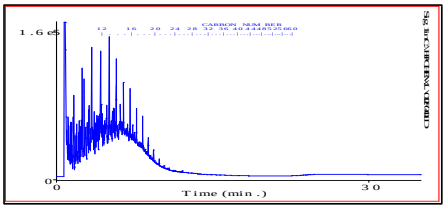


Winter Diesel



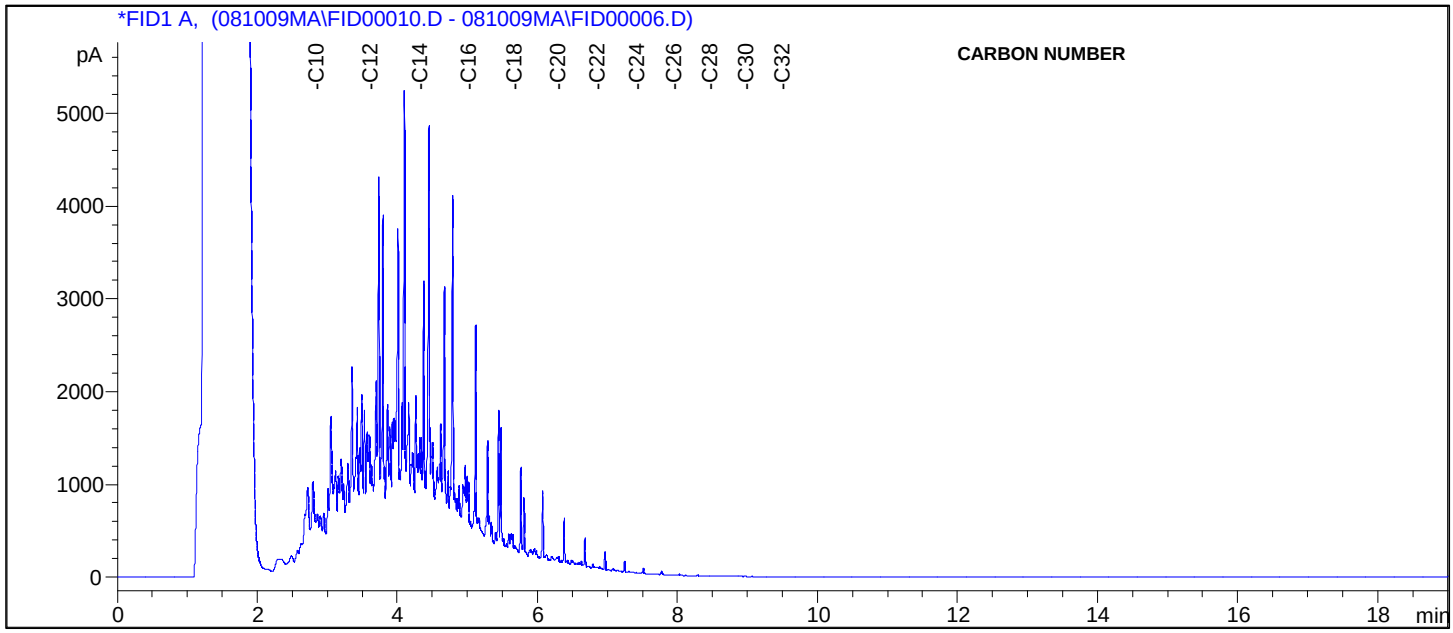
Product Carbon Number Ranges

Gasoline	C4-C12	Kerosene	C7-C16	Lubricating Oils	C20-C40
Varsol	C8-C12	Diesel	C8-C22	Crude Oils	C3-C60+

Hydrocarbon Chromatogram

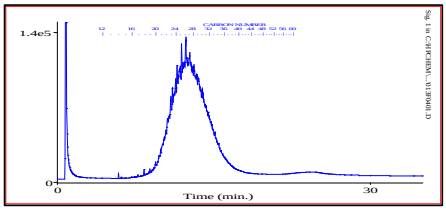
Bill To:	Access Mining Consultants Ltd.	Project ID:	ALEX-08-ESP-01-T	Lot ID:	**647091**
Report To:	Access Mining Consultants Ltd.	Name:	Hydrocarbon Assessment	Control Number:	
	#3 Calcite Business Centre	Location:	Elsa Special Project	Date Received:	Oct 6, 2008
	151 Industrial Road	LSD:		Date Reported:	
	Whitehorse, YT, Canada	P.O.:		Report Number:	
	Y1A 2V3				
Attn:	Kurt Neunherz				
Sampled by:	KN				
Company:	ACG				

NWL Number: 647091-10 Sample Description: Fuel Storage Area #4 2.5m
Sample Date: Oct 2, 2008

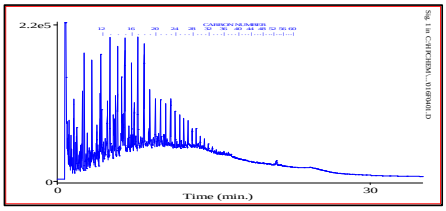


TYPICAL PRODUCT CHROMATOGRAMS

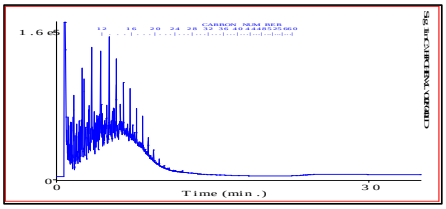
Motor Oil 10W30



Unweathered Crude



Winter Diesel



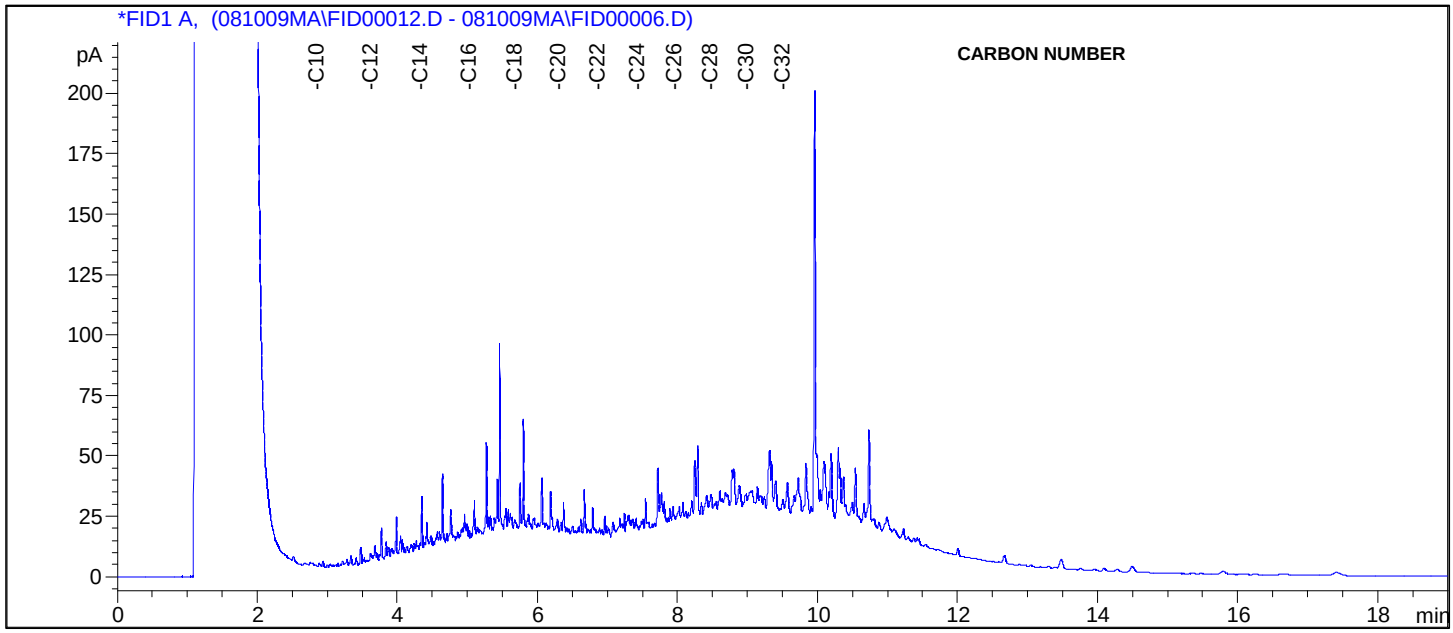
Product Carbon Number Ranges

Gasoline	C4-C12	Kerosene	C7-C16	Lubricating Oils	C20-C40
Varsol	C8-C12	Diesel	C8-C22	Crude Oils	C3-C60+

Hydrocarbon Chromatogram

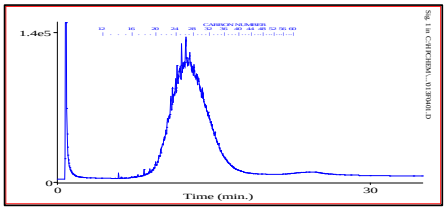
Bill To:	Access Mining Consultants Ltd.	Project ID:	ALEX-08-ESP-01-T	Lot ID:	**647091**
Report To:	Access Mining Consultants Ltd.	Name:	Hydrocarbon Assessment	Control Number:	
	#3 Calcite Business Centre	Location:	Elsa Special Project	Date Received:	Oct 6, 2008
	151 Industrial Road	LSD:		Date Reported:	
	Whitehorse, YT, Canada	P.O.:		Report Number:	
	Y1A 2V3				
Attn:	Kurt Neunherz				
Sampled by:	KN				
Company:	ACG				

NWL Number: 647091-11 Sample Description: Fuel Storage Area #3 2-2.5m
Sample Date: Oct 2, 2008

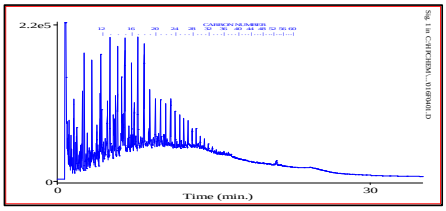


TYPICAL PRODUCT CHROMATOGRAMS

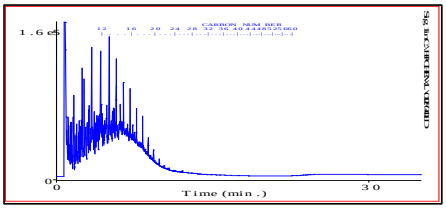
Motor Oil 10W30



Unweathered Crude



Winter Diesel



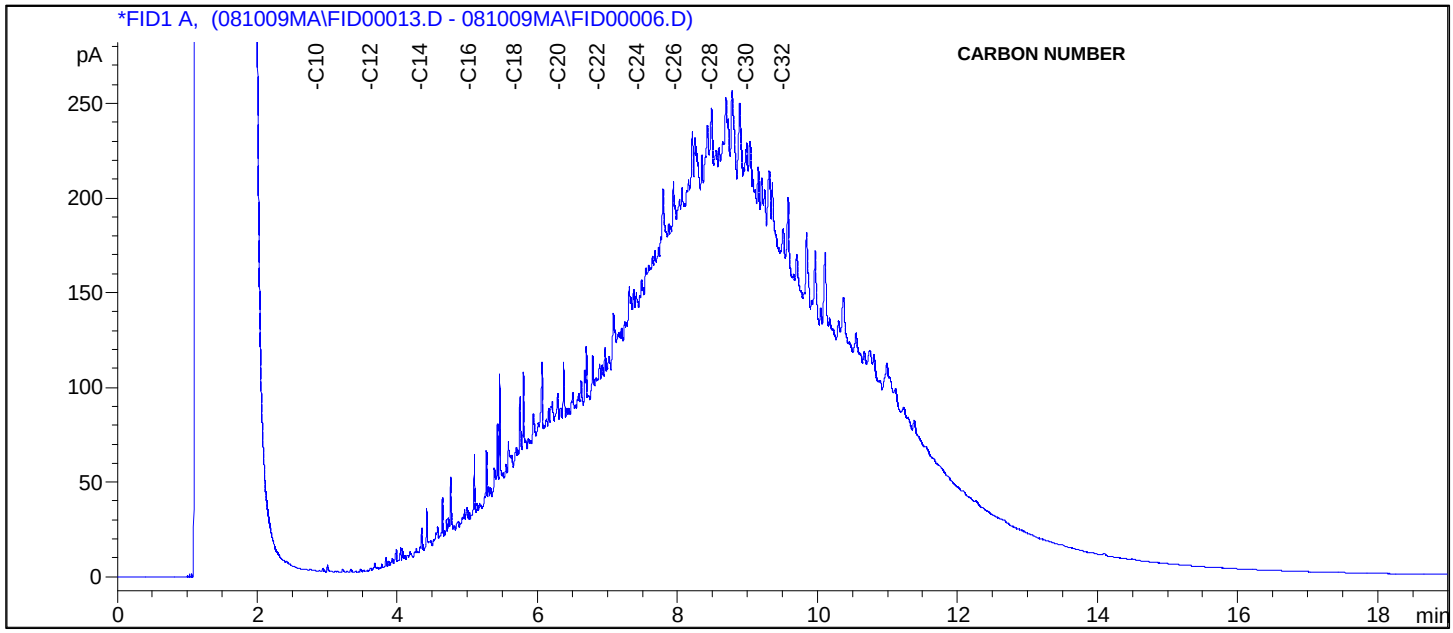
Product Carbon Number Ranges

Gasoline	C4-C12	Kerosene	C7-C16	Lubricating Oils	C20-C40
Varsol	C8-C12	Diesel	C8-C22	Crude Oils	C3-C60+

Hydrocarbon Chromatogram

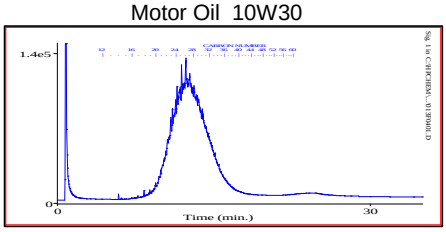
Bill To:	Access Mining Consultants Ltd.	Project ID:	ALEX-08-ESP-01-T	Lot ID:	**647091**
Report To:	Access Mining Consultants Ltd.	Name:	Hydrocarbon Assessment	Control Number:	
	#3 Calcite Business Centre	Location:	Elsa Special Project	Date Received:	Oct 6, 2008
	151 Industrial Road	LSD:		Date Reported:	
	Whitehorse, YT, Canada	P.O.:		Report Number:	
	Y1A 2V3				
Attn:	Kurt Neunherz				
Sampled by:	KN				
Company:	ACG				

NWL Number: 647091-12 Sample Description: Keno 700 Oil Change Area
Sample Date: Sep 29, 2008

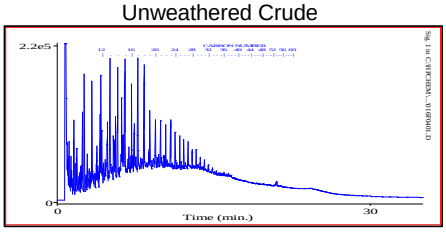


TYPICAL PRODUCT CHROMATOGRAMS

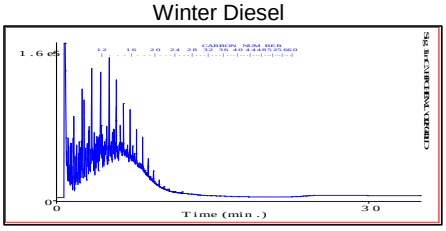
Motor Oil 10W30



Unweathered Crude



Winter Diesel



Product Carbon Number Ranges

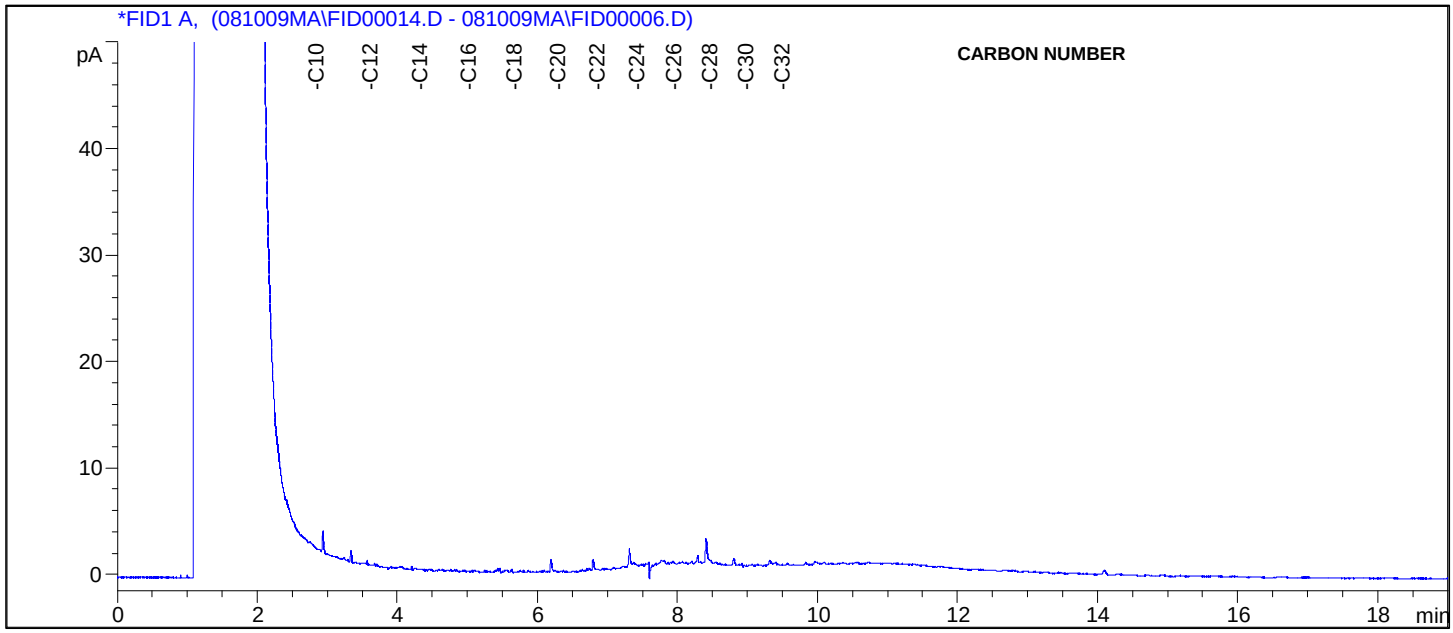
Gasoline	C4-C12	Kerosene	C7-C16	Lubricating Oils	C20-C40
Varsol	C8-C12	Diesel	C8-C22	Crude Oils	C3-C60+

Bodycote TESTING GROUP

Hydrocarbon Chromatogram

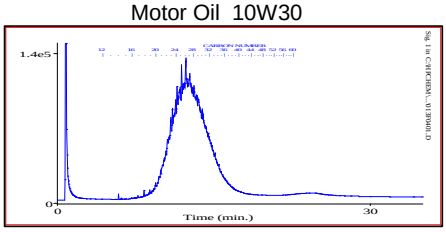
Bill To:	Access Mining Consultants Ltd.	Project ID:	ALEX-08-ESP-01-T	Lot ID:	**647091**
Report To:	Access Mining Consultants Ltd.	Name:	Hydrocarbon Assessment	Control Number:	
	#3 Calcite Business Centre	Location:	Elsa Special Project	Date Received:	Oct 6, 2008
	151 Industrial Road	LSD:		Date Reported:	
	Whitehorse, YT, Canada	P.O.:		Report Number:	
	Y1A 2V3				
Attn:	Kurt Neunherz				
Sampled by:	KN				
Company:	ACG				

NWL Number: 647091-13 Sample Description: Waste Oil Storage #1 0.5-1
Sample Date: Oct 2, 2008

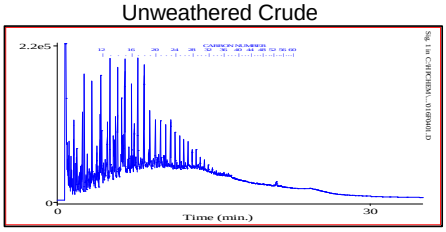


TYPICAL PRODUCT CHROMATOGRAMS

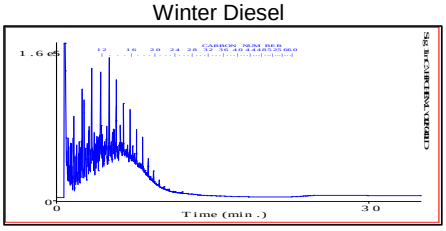
Motor Oil 10W30



Unweathered Crude



Winter Diesel



Product Carbon Number Ranges

Gasoline	C4-C12	Kerosene	C7-C16	Lubricating Oils	C20-C40
Varsol	C8-C12	Diesel	C8-C22	Crude Oils	C3-C60+

Appendix D:

Field Assessment Test Pit Logs

TEST PIT LOG

ALEXCO

Pit No:	Test Pit #1
Date:	Aug 26, 2008
Project: Keno Valley Contaminated Sites Closure Studies	Total Depth: 2.30m
Location: Elsa School / West End of school Yard / ~~ball diamond~~	Pit Dimensions: 1x3 x 2.3
Logged by: P. Inglis & K. Neunherz	Sampling Method: Grab
Contractor: ERDC	Equipment Type: Kubota KX080-3

Comments: fill from surface to 2.20m, fractured bedrock 2.20m
- unable to dig below 2.30m

2.30m

Depth Log (ft / m)	Material Description	Ground Water	Sample No.	Remarks
0.1m	fill & organics dark brown	none	none	- moved hole 2 m S E same results. - no water. - potential landfill site.
0.1m	fill & organics light brown			
2.0m	fill dark brown			
2.2m				
2.3m	fractured bedrock depth of hole.			
	- looking for GW for LTP or landfill			
	no ground water encountered			
	EOH: 2.3m could not dig below - too hard			

TEST PIT LOG

ALEXCO

Pit No: TP2	
Date: Aug. 26/08	
Project: Keno Valley Cont. Site Moisture Studies	Total Depth: 3.1 m
Location: Elsa School - ball diamond 3m from fence.	Pit Dimensions:
Logged by: Paul Inglis, K Neunherz	Sampling Method: Grab
Contractor: EROC	Equipment Type: Kubota Hoe
Comments: moved from TP1 ETF of Landfill	

3.1m

Depth Log (ft / m)	Material Description	Ground Water	Sample No.	Remarks
0.1m	light brown fill	no	none	soil at bottom was very moist - left open to allow GW seepage - UST at school - no water after 24hrs.
3.0m	fill: clay / gravel / cobble 30% 60% 10%			
2	dark brown clay			
1				
4	fractured bedrock			
	no groundwater encountered @ 3.1m			
6				
2				
8				
3				
10				
12				
4				

TEST PIT LOG

ALEXCO

Pit No: TP3	
Date: Aug. 26/08	
Project: Keno Valley road sites Closure Studies	Total Depth: 3.55 m
Location: W. end of school in flsa	Pit Dimensions: 1 x 3 x 3.1
Logged by: P. Inglis, K. Naithner	Sampling Method: Grab
Contractor: EROC LTF on Landfill	Equipment Type: Hoe
Comments: - no water visible, - no water after 24 hrs.	

3.55m

Depth Log (ft / m)	Material Description	Ground Water	Sample No.	Remarks
0.5m	organics / till	no	none	
2	fill gravel / cobbles			
3.05m				
1	no evidence of groundwater			
4	left open for 24hrs no water collected			
	Euh: 3.1m			
6				
2				
8				
3				
10				
12				
4				

TEST PIT LOG

ALEXCO

Pit No:	TP4
Date:	Aug. 26/08
Total Depth:	3.0m.
Pit Dimensions:	1x3+3
Sampling Method:	Grab
Equipment Type:	Hoe

Project: Keno Closure

Location: framing mill / carpentry yard - forecast end past turnaround on rd edge.

Logged by: P. Inglis & K. Neunherz

Contractor: ERDC

Comments: looking for LTF or bedrock

Depth Log (ft / m)	Material Description	Ground Water	Sample No.	Remarks
2.0m	fill: gravel / clay / cobble / sand 50% 15% 20% 15% black / grey	none	none	
2.8m	organics: dark brown & sawdust			
3.0m	cobbles			
	EOH: 3m			
	no ground water encountered			

3.0m

0.12m

2

4

6

8

10

12

2

3

4

TEST PIT LOG

ALEXCO

Pit No:	TPS
Date:	Aug. 26/08
Project:	Keno Closure
Total Depth:	3.0m
Location:	LTF - framing Mill/carpenters Yard - west end near access road amongst debris to the N. of road.
Pit Dimensions:	1 x 3 x 3
Logged by:	P. Inglis, K. Neuhberz.
Sampling Method:	Grab
Contractor:	ERDC
Equipment Type:	Hoe
Comments:	- extensive boulder/cobble in pit - difficult digging - broken thumb on hoe bucket

Depth Log (ft / m)	Material Description	Ground Water	Sample No.	Remarks
0.1m	organics / A horizon / slightly mineralized			
2.9m (to 3.0m)	large cobble / boulder / grey sand	none	none	
	no groundwater encountered			
	EOH 3m			
	possible LTF + load(?)			

Depth scale: ft 2, 4, 6, 8, 10, 12; m 1, 2, 3, 4. Marked total depth: 3.0m.

TEST PIT LOG

ALEXCO

Pit No:	TP-CBC-01
Date:	Aug. 27 / 08
Project:	Keno Closure Studies / HC Contamination
Total Depth:	2.5m
Location:	TP-CBC-01 - in depression SE of main tower
Pit Dimensions:	1x 4x 2.5m
Logged by:	P. Inglis, K Neumhere. - same specs as previous SRK TP
Sampling Method:	Grab
Contractor:	LRDC
Equipment Type:	Hoe
Comments:	-water @ 1.2m depth - possibly ∴ of [illegible] soil from previous TPing. - surface ponding at TP location

Depth Log (ft / m)	Material Description	Ground Water	Sample No.	Remarks
2.5m	-packed gravel & sand/silt from surface to max depth aug @ 2.5m → 1.2m Possible trapped water. Test pit in disturbed soil E.O.H. 2.5m	1.2m trapped H_2O		in disturbed soil

2 — 1 — 4 — 6 — 2 — 8 — 3 — 10 — 12 — 4

TEST PIT LOG

ALEXCO

Pit No:	CBC TP-02.
Date:	Aug 27 '08
Total Depth:	3.0 m.
Pit Dimensions:	1x3x3
Sampling Method:	Grab
Equipment Type:	Hoe

Project: Keno Closure Studies.

Location: CBC-TP-02. - Pit east of main CBC Tower

Logged by: P. Inglis, K. Neunherz.

Contractor: E.R.D.C.

Comments: - new pit, no water

Depth Log (ft / m)	Material Description	Ground Water	Sample No.	Remarks
3.0m	packed gravel & sand/silt	ND		- potential 30 x 100 m area - no water.
2.4m	very hard rock @ 2.4m → fractured bedrock			
	no evidence of Ground water EOH: 3 m			

TEST PIT LOG

ALEXCO

Pit No:	VTTP01
Date:	Aug-22/08
Project:	Keno Closure Studies
Total Depth:	3.2m.
Location:	UTTP01 - (HLTF) tailings in area of sludge ponds.
Pit Dimensions:	1x3x3.2
Logged by:	P. Inglis, R. Neunherz.
Sampling Method:	grab
Contractor:	ERDC
Equipment Type:	Hoe

Comments: - tailings from top to depth of 2.5m. potential 30m x 30m area with lots of expansion

Depth Log (ft / m)	Material Description	Ground Water	Sample No.	Remarks
0.2m	- oxidized black tailings	no	none	- no water
0.6m	- red/brown tailings.			
2.3m	- yellow/brown tailings			
2.6m	- rich brown soil			
3.3m	- fractured bedrock			
	no evidence of Groundwater			
	EOH: 3.2m			

3.2m

TEST PIT LOG

ALEXCO

Pit No:	VT-TP02
Date:	Aug. 27 /08.
Project: Keno Closure Studies	Total Depth: 2.1m.
Location: VT-TP02 - SW pond @ bottom	Pit Dimensions: 1x3 x 2.1 m
Logged by: P Inglis K. Neumhere	Sampling Method: Grab
Contractor: ERDC	Equipment Type: Hoe

Comments: - no water. - tailings to depth of 1.6m

Depth Log (ft / m)	Material Description	Ground Water	Sample No.	Remarks
1.6m	tailings	none	none	
2.1m	- organics (with cobbles/gravel)			
	EOH: 2.1m			
	no groundwater.			

TEST PIT LOG

ALEXCO

Pit No:	TP1
Date:	Oct. 1 /08
Project:	Keno Closure
Total Depth:	3.4m
Location:	Galkena 300 near Quonset - GPS: 08V0482568 UTM 7088802
Pit Dimensions:	1 x 3 x 3.4
Logged by:	K Neunherz.
Sampling Method:	grab
Contractor:	EROC
Equipment Type:	Hoe
Comments:	LTF or Log for location.

Depth Log (ft / m)	Material Description	Ground Water	Sample No.	Remarks
2 / 1	DK olive brown silty sand, with gravel, some cobbles	none	none	- no evidence of groundwater just minor surface run off
	no ground water encountered Eoh: 3.4m			
4 / 6 / 2	3.4m.			
8 / 3				
10 / 12 / 4				

3.4m

TEST PIT LOG

ALEXCO

Pit No:	
Date:	Oct 2 108
Project:	Reno Closure
Total Depth:	1m
Location:	Waste Oil Storage #3. Across from bunkhouse GPS - 08V0476115 UTM 7098401
Pit Dimensions:	1x3x1
Logged by:	K.N
Sampling Method:	Grab
Contractor:	ERDC
Equipment Type:	Hoe
Comments:	HC assessment

Depth Log (ft / m)	Material Description	Ground Water	~~Sample No.~~ PID ppm	Remarks
0.5m	-seemed to be clean gravel, sub organics no GW	0-0.5	17.4	7x5 x0.5 area.
2	HC 0-0.5	0.5-1	29.6	
1	clean 0.5-1			
	Eom. 1m			
4				
6				
2				
8				
3				
10				
12				
4				

TEST PIT LOG

ALEXCO

Pit No:	TP1
Date:	Oct. 2108
Project:	Keno Closure
Total Depth:	3.6m
Location:	Landfill test pit in front of Bunkhouse 1
Pit Dimensions:	1 x 3 x 3.6
Logged by:	K.N.
Sampling Method:	Grab
Contractor:	EPCC
Equipment Type:	Hoe
Comments:	LTF or landfill boundary

Depth Log (ft / m)	Material Description	Ground Water	Vapours Sample No: ppm	Remarks
0-0.3m	OR greyish brown sandy silt	none	174	
0.5-1m	gravel, larger cobbles		276	
3.6m	no ground water encountered			
	EOH 3.6m			

3.6m

TEST PIT LOG

ALEXCO

Pit No: TP1	
Date: Oct 2108	
Project: Keno Closure	Total Depth: 3m
Location: Fuel Storage Area 14 — 08 V 0475907 UTM 7087102	Pit Dimensions: 1 x 3 x 3
Logged by: K Neunherz	Sampling Method: Grab
Contractor: EBOC	Equipment Type: Hoe
Comments: LTF location?	

Depth Log (ft / m)	Material Description	Ground Water	Vapours Sample No. ppm	Remarks
0-0.5m 0.5-1m 1-1.5m 2 2.5m 3m 1 4 6 2 8 3 10 12 4	Olk brown, silty sand, gravel, cobbles grey hydrocarbon staining throughout no evidence of Groundwater Hoe refusal at bedrock at 3m	none	6254 8854 8483 - 7164 5238	Sample

ALEXCO

TEST PIT LOG

Project: Keno Closure.	Pit No: TP2
	Date: Oct 21 08
	Total Depth: 3m
Location: Fuel Storage Area #4 - 08V0475898 UTM 7087084	Pit Dimensions: 1x3x3
Logged by: K. N	Sampling Method: Grab
Contractor: ERDC	Equipment Type: Hoe
Comments: LTF location?	

Depth Log (ft / m)	Material Description	Ground Water	Vapours Sample No. ppm	Remarks
0-1m	Grey sand / gravel / cobbles		162	Delineate TP1 10 m away
	no HC staining			
	no evidence of grade other			
2-3m			46.3	
1 (3m)	EOH. 3m			
2, 4				
6				
2, 8				
3, 10				
12, 4				

TEST PIT LOG

ALEXCO

Pit No: TP1	
Date: Oct 2 / 08	
Project: Keno Closure	Total Depth: 3m
Location: Fuel Storage Area #3 08V 0475825 UTM 7087100	Pit Dimensions: 1 x 3 x 3
Logged by: K.N	Sampling Method: Grab
Contractor: ERDC	Equipment Type: Hoe
Comments:	

3m

Depth Log (ft / m)	Material Description	Ground Water	~~Sample No.~~ Vapours ppm	Remarks
0-0.5m 0.5-1m	Gravel, sand, cobbles grey	None	2214 1885	Sple
2	Grey HC Stain 0-2m			
2-2.5m	to evidence of GW		251	
1	Keno 3m			
4				
6	2			
8				
	3			
10				
12	4			

TEST PIT LOG

ALEXCO

Pit No: TP2	Date: Oct. 2 l08
Project: Kero Closure	Total Depth: 2m.
Location: Fuel Storage area #3 - TP2 08V 0475830 UTM 7087105	Pit Dimensions: 1x3x2
Logged by: K.N.	Sampling Method: Grab
Contractor: ERDC	Equipment Type: Hoe
Comments: LTF ?	

Depth Log (ft / m)	Material Description	Ground Water	Vapours ~~Sample No.~~ ppm	Remarks
2.0m; 0.5-1m	Course grained sand / gravel / cobbles grey color		106	10 m from TP1 to delineate
2; 1 m	no HC staining			
	no evidence of GW			
	EOH: 2m			
4				
6; 2				
8				
10; 3				
12; 4				

TEST PIT LOG

ALEXCO

Pit No:	TP1
Date:	Oct. 21/08
Project:	Keno Closure
Total Depth:	1m
Location:	floatation Mill / Crusher house
Pit Dimensions:	1x1x1
Logged by:	K.N. 08V 047 5911 UTM 7083185
Sampling Method:	Grab
Contractor:	EADC
Equipment Type:	Hoe
Comments:	HC assessment

Depth Log (ft / m)	Material Description	Ground Water	Sample No.	Remarks
0	grey gravel, cobbles, sand	none	2.3ppm	- no visible HC cont. evidence
1	no Hydrocarbon staining			Vapours: 2.3ppm
2	EOH: 1m			
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				

ALEXCO

TEST PIT LOG

Project: Keno Closure.	Pit No: TP2
	Date: Oct 2/08
Location: Floatation mill / crusher house 08V 0475906 UTM 7087185	Total Depth: 1m
Logged by: K.N.	Pit Dimensions: [illegible]
Contractor: ERDC	Sampling Method: Grab
Comments: HC assessment	Equipment Type: Hoe

Depth Log (ft / m)		Material Description	Ground Water	Sample No.	Remarks
		same as TP1	none	[illegible]	-no visible signs of cont.
		no HC staining			Vapours 4.5 ppm
2	1	EOH: 1m			
4					
6	2				
8	3				
10					
12	4				

TEST PIT LOG

ALEXCO

Pit No:	TP3
Date:	Oct. 2108
Project:	Keno Closure
Total Depth:	1
Location:	Floatation Mill / crusher house. 08V097 5919 UTM 2087288
Pit Dimensions:	1 x 1 x 1
Logged by:	K.N.
Sampling Method:	grab
Contractor:	ERDC
Equipment Type:	hoe.
Comments:	HC assessment

Depth Log (ft / m)	Material Description	Ground Water	Sample No.	Remarks
2	Same as TP1	none	0 ppm	- no visible signs of cont.
	no HC shavings			Vapours:
1	EOH: 1m			0 ppm
4				
6				
2				
8				
3				
10				
12				
4				

TEST PIT LOG

ALEXCO

Pit No:	TP1
Date:	Oct. 2108
Project:	Keno Closure
Total Depth:	2m.
Location:	Waste oil Storage #1 UTM 08V 0475837 7082514
Pit Dimensions:	1m x 2
Logged by:	K.N.
Sampling Method:	Grab
Contractor:	ERDC
Equipment Type:	Hoe
Comments:	UG assessment

Depth Log (ft / m)	Material Description	Ground Water	Sample No: Various ppm	Remarks
0-0.5m 0.5-1m 1.5-2m 2m 2.0m	metal debris Sandy silt, gravel, cobbles grey Heavy staining 0-0.5m HC odour no evidence of GW EOH: 2m	none	129 53.6 41.3	Staining to 0.5m. Area approx. 35m x 20m x 0.5m.

TEST PIT LOG

ALEXCO

Pit No:	TP2
Date:	Oct. 21/08
Project:	Keno Closure.
Total Depth:	1m.
Location:	Waste Oil Storage #1 08V 0475833 UTM 7083209
Pit Dimensions:	1 x 1
Logged by:	K.N.
Sampling Method:	Grab
Contractor:	EROC
Equipment Type:	Hoe
Comments:	Delineate TP1

Depth Log (ft / m)	Material Description	Ground Water	Vapours ~~Sample No.~~ ppm	Remarks
1.0m ↕ 1m	5 m from TP1	none	75.	no HC staining
2	grey gravel, sand, cobbles			
	no HC staining			
1	no GW			
	Bottom 1m			
4				
6	2			
8				
	3			
10				
12	4			