A TETRA TECH COMPANY

May 3, 2011

ISSUED FOR USE
EBA FILE: W23101161.001
Via Email: Deborah.Pitt@gov.yk.ca

Energy, Mines and Resources
Box 2703 (K-419)
Whitehorse, Yukon Y1A 2C6

Attention: Deborah Pitt
Project Manager, Faro Project Management Team

Subject: Confirmation Sampling at the Former Metafina Chemicals Site
Faro, Yukon

1.0 INTRODUCTION

EBA, A Tetra Tech Company, (EBA) was contracted by Yukon Government, (YG) Assessment and Abandoned Mines Branch, to conduct soil sampling to assess the progress of remediation of hydrocarbon contaminated soil at the former Metafina Chemicals site in Faro, Yukon. This report provides the work methods employed, analytical results for the soil samples collected, and an interpretation of those results with respect to the Yukon Contaminated Sites Regulation.

1.1 Background

During previous site assessment work completed by EBA (*Former Metafina Chemicals Site Assessment*, March 2009) hydrocarbon contaminated soils were identified in one near surface soil sample location at the former Metafina Chemicals site in Faro Yukon. A sample collected at greater depth at this sample location and samples from adjacent locations all contained hydrocarbon concentrations well below all regulatory standards.

In the report, EBA recommended that a nitrogen based fertilizer be applied and the surface soils loosened to improve aeration and the infiltration of moisture. The application of compose was also suggested as a means of providing organic material to the soil in the area of identified hydrocarbon contamination. Follow-up soil testing was recommended to confirm that the contamination had been successfully remediated.

1.2 Objectives

The objective of this project was to assess hydrocarbon concentrations in an area of previously identified contamination.

1.3 Scope of Work

The scope of work included the following:

- collecting soil samples for hydrocarbon analysis;
- arranging sample analysis at an accredited laboratory; and

EBA, A Tetra Tech Company
Calcite Business Centre, Unit 6, 151 Industrial Road
Whitehorse, YT Y1A 2V3 CANADA
p. 867.668.3068 f. 867.668.4349

- providing this report presenting the information obtained, the conclusions drawn.

2.0 METHODS

2.1 Soil Sampling

Previous analytical results (EBA, 2009) had shown that one soil sample (HA03 at 0.1 m) contained concentrations of heavy extractable petroleum hydrocarbons of 1100 mg/kg, which marginally exceeded the park land use standard of 1000 mg/kg. This was a near surface sample collected at 0.1 m below ground surface. The sample collected at 0.8 m contained 39 mg/kg of heavy extractable petroleum hydrocarbons. Remediation efforts had targeted to top 300 mm and EBA samples were collected at approximately 100 mm.

The original sample location was established based on measurement from permanent site features including a concrete foundation and monitoring wells remaining on the site. Soil samples were collected by removing the top 100 mm and then using a trowel to collect samples directing into 120 mL glass jars supplied by the analytical laboratory. Nitrile gloves were worn when handling soil and were changed for each sample location to prevent cross-contamination.

Four soil samples were collected (northeast, northwest, southeast, and southwest) from within one meter of the original (HA03 at 0.1 m) sample location. Samples were placed into a cooler with ice packs and shipped via air from Whitehorse to the Exova analytical laboratory in Surrey BC.

2.2 Standards and Potential Contaminants of Concern

The *Contaminated Sites Regulation (CSR)* (*Environment Act*) provides standards for the assessment and remediation of contaminated sites in Yukon. Schedule 1 and 2 of the CSR provide generic and matrix numerical standards for soils that are based on site-specific land and water uses. Since hydrocarbons had previously been identified as the remaining contaminant of concern on the site hydrocarbon analysis was performed on selected samples. Metals analysis was not completed in the previous site work and therefore was conducted on one sample as a precautionary measure.

EBA understanding that future land use may include recreational land use. Therefore, park land use standards were selected as the most applicable land use at the site.

2.3 Laboratory Analytical Program

During the 2008 sampling program the adjacent samples had contained hydrocarbon concentrations below park land use standards. The southwest sample location (HA04 at 0.2) was within five meters of HA03. Therefore, this sample was analyzed for metals and the three remaining samples were selected for analysis of light and heavy extractable petroleum hydrocarbons (LEPH, HEPH), volatile petroleum hydrocarbons (VPH), Mono-Aromatic Hydrocarbons, and Polycyclic Aromatic Hydrocarbons (PAHs).

Further information regarding laboratory testing methodology is provided in the Exova Analytical Report (Appendix B).

3.0 RESULTS AND DISCUSSION

The soil sample results had concentrations of heavy extractable petroleum hydrocarbons ranging from 214 µg/g to 627 µg/g. These results are all below the park land use standard of 1000 µg/g for heavy extractable petroleum hydrocarbons. All remaining parameters are also well below park land use standards, including metals. These results indicate that the remediation undertaken at the site was successful in reducing hydrocarbon concentrations to below Contaminated Sites Regulation park land use standards. The laboratory analytical reports are provided in Appendix B.

EBA has no recommendations for further site assessment or remediation.

4.0 LIMITATIONS OF REPORT

This report and its contents are intended for the sole use of Yukon Government, Assessment and Abandoned Mines Branch, and their agents. EBA, A Tetra Tech Company, does not accept any responsibility for the accuracy of any of the data, the analysis, or the recommendations contained or referenced in the report when the report is used or relied upon by any Party other than the Assessment and Abandoned Mines Branch, or for any Project other than the proposed development at the subject site. Any such unauthorized use of this report is at the sole risk of the user. EBA's General Conditions are provided in Appendix A of this report.

5.0 CLOSURE

We trust this report meets your present requirements. Should you have any questions or comments, please contact the undersigned at your convenience.

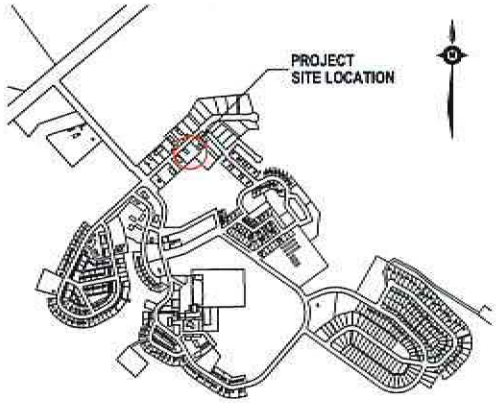
Sincerely,
EBA, A Tetra Tech Company

Nicole Jacques, M.Sc., CCEP
Environmental Scientist,
Yukon - Pacfic Region
Direct line: 867.668.2071 x234
njacques@eba.ca

Don Wilson, B.Sc.
Contaminants, Team Lead
Yukon – Pacific Region
Direct line: 867.668.2071 x 223
dwilson@eba.ca

FIGURES

Figure 1 Site Location and Site Plan Showing Sample Locations



LOCATION PLAN
MAP OF FARO, YUKON

0 1 000

Scale: 1: 20 000 (metres)

SITE PLAN

0 25

Scale: 1: 500 (metres)

LEGEND

- MONITORING WELL LOCATIONS (SHOWN WHITE) SEPTEMBER 1996
- HAND AUGER LOCATIONS (SHOWN WHITE)

NOTES

1. IMAGE OBTAINED FROM GOOGLE EARTH (PRO VERSION)

CLIENT: Yukon Assessment and Abandoned Mines Branch

eba A TETRA TECH COMPANY

CONFIRMATION OF SOIL REMEDIATION
FORMER METAFINA CHEMICAL SITE - FARO, YUKON

SITE LOCATION AND SITE PLAN
SHOWING SAMPLE LOCATIONS

PROJECT NO.	DSN	CKD	REV
W23101161-001	CB	DJW	0
OFFICE: EBA-WHSE	DATE: March 14, 2011		

Figure 1

APPENDIX A

APPENDIX A EBA'S GENERAL CONDITIONS

GENERAL CONDITIONS

GEO-ENVIRONMENTAL REPORT

This report incorporates and is subject to these "General Conditions".

1.0 USE OF REPORT AND OWNERSHIP

This report pertains to a specific site, a specific development, and a specific scope of work. It is not applicable to any other sites, nor should it be relied upon for types of development other than those to which it refers. Any variation from the site or proposed development would necessitate a supplementary investigation and assessment.

This report and the assessments and recommendations contained in it are intended for the sole use of EBA's client. EBA does not accept any responsibility for the accuracy of any of the data, the analysis or the recommendations contained or referenced in the report when the report is used or relied upon by any party other than EBA's Client unless otherwise authorized in writing by EBA. Any unauthorized use of the report is at the sole risk of the user.

This report is subject to copyright and shall not be reproduced either wholly or in part without the prior, written permission of EBA. Additional copies of the report, if required, may be obtained upon request.

2.0 ALTERNATE REPORT FORMAT

Where EBA submits both electronic file and hard copy versions of reports, drawings and other project-related documents and deliverables (collectively termed EBA's instruments of professional service), only the signed and/or sealed versions shall be considered final and legally binding. The original signed and/or sealed version archived by EBA shall be deemed to be the original for the Project.

Both electronic file and hard copy versions of EBA's instruments of professional service shall not, under any circumstances, no matter who owns or uses them, be altered by any party except EBA. The Client warrants that EBA's instruments of professional service will be used only and exactly as submitted by EBA.

Electronic files submitted by EBA have been prepared and submitted using specific software and hardware systems. EBA makes no representation about the compatibility of these files with the Client's current or future software and hardware systems.

3.0 NOTIFICATION OF AUTHORITIES

In certain instances, the discovery of hazardous substances or conditions and materials may require that regulatory agencies and other persons be informed and the client agrees that notification to such bodies or persons as required may be done by EBA in its reasonably exercised discretion.

4.0 INFORMATION PROVIDED TO EBA BY OTHERS

During the performance of the work and the preparation of the report, EBA may rely on information provided by persons other than the Client. While EBA endeavours to verify the accuracy of such information when instructed to do so by the Client, EBA accepts no responsibility for the accuracy or the reliability of such information which may affect the report.

APPENDIX B

APPENDIX B LABORATORY TEST RESULTS

Exova
#104, 19575-55 A Ave.
Surrey, British Columbia
V3S 8P8, Canada

T: +1 (604) 514-3322
F: +1 (604) 514-3323
E: Surrey@exova.com
W: www.exova.com

Exova

Report Transmission Cover Page

Bill To:	EBA Engineering Consulting Lt	Project:	
Report To:	EBA Engineering Consulting Lt	ID:	W23101161
	Calcite Business Centre	Name:	
	Unit 6, 151 Industrial Road	Location:	
	Whitehorse, YT, Canada	LSD:	
	Y1A 2V3	P.O.:	
Attn:	Nicole Jacques	Acct code:	
Sampled By:	NRJ		
Company:			

Lot ID:	**760798**
Control Number:	A171812
Date Received:	Sep 3, 2010
Date Reported:	Sep 10, 2010
Report Number:	1355108

Contact & Affiliation	Address	Delivery Commitments
Nicole Jacques EBA Engineering - Edmonton	Unit 6, 151 Industrial Road, Calcite Business Whitehorse, Yukon Territory Y1A 2V3 Phone: (867) 668-2071 Fax: (867) 668-4349 Email: njacques@eba.ca	On [Lot Verification] send (COA) by Email - Single Report On [Report Approval] send (COC, Test Report) by Email - Merge Reports On [Report Approval] send (Test Report) by Email - Single Report On [Report Approval] send (Test Report) by Email - Multiple Reports On [Report Approval] send (Test Report) by Email - Multiple Reports
Kim Greenman EBA Engineering - Edmonton	Unit 6, 151 Industrial Road, Calcite Business Whitehorse, Yukon Territory Y1A 2V3 Phone: (867) 668-2071 Fax: (867) 668-4349 Email: kgreenman@eba.ca	On [Lot Approval and Final Test Report Approval] send (Invoice) by Email - Single Report

Notes To Clients:

- Surrogate recovery of Nitrobenzene-d5 is not available and p-Terphenyl-d14 does not meet acceptance criteria due to matrix interference.

Exova
#104, 19575-55 A Ave.
Surrey, British Columbia
V3S 8P8, Canada

T: +1 (604) 514-3322
F: +1 (604) 514-3323
E: Surrey@exova.com
W: www.exova.com

Exova

Sample Custody

Bill To:	EBA Engineering Consulting Lt	Project:	
Report To:	EBA Engineering Consulting Lt	ID:	W23101161
	Calcite Business Centre	Name:	
	Unit 6, 151 Industrial Road	Location:	
	Whitehorse, YT, Canada	LSD:	
	Y1A 2V3	P.O.:	
Attn:	Nicole Jacques	Acct code:	
Sampled By:	NRJ		
Company:			

Lot ID:	**760798**
Control Number:	A171812
Date Received:	Sep 3, 2010
Date Reported:	Sep 10, 2010
Report Number:	1355108

Sample Disposal Date: December 09, 2010

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 top of this page.

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

The following charges apply to extended sample storage:

Storage for an additional 30 days	$ 2.50 per sample
Storage for an additional 60 days	$ 5.00 per sample
Storage for an additional 90 days	$ 7.50 per sample

☐ Return Sample, collect, to the address below via:

- ☐ Greyhound
- ☐ DHL
- ☐ Purolator
- ☐ Other (specify) _____

Name _____
Company _____
Address _____
_____
Phone _____
Fax _____

Signature _____

Exova
#104, 19575-55 A Ave.
Surrey, British Columbia
V3S 8P8, Canada

T: +1 (604) 514-3322
F: +1 (604) 514-3323
E: Surrey@exova.com
W: www.exova.com

Exova

Analytical Report

Bill To: EBA Engineering Consulting Lt
Report To: EBA Engineering Consulting Lt
Calcite Business Centre
Unit 6, 151 Industrial Road
Whitehorse, YT, Canada
Y1A 2V3
Attn: Nicole Jacques
Sampled By: NRJ
Company:

Project:
ID: W23101161
Name:
Location:
LSD:
P.O.:
Acct code:

Lot ID: **760798**
Control Number: A171812
Date Received: Sep 3, 2010
Date Reported: Sep 10, 2010
Report Number: 1355108

		Reference Number	760798-1	760798-2	760798-4	
		Sample Date	Aug 31, 2010	Aug 31, 2010	Aug 31, 2010	
		Sample Time	NA	NA	NA	
		Sample Location				
		Sample Description	Northwest / 0.1m	Northeast / 0.1m	Southeast / 0.1m	
		Matrix	Soil	Soil	Soil	
Analyte		**Units**	**Results**	**Results**	**Results**	Nominal Detection Limit
Mono-Aromatic Hydrocarbons - Soil						
Benzene	Dry Weight	ug/g	<0.02	<0.02	<0.02	0.02
Toluene	Dry Weight	ug/g	<0.05	<0.05	<0.05	0.05
Ethylbenzene	Dry Weight	ug/g	0.07	<0.05	<0.05	0.05
Total Xylenes (m,p,o)	Dry Weight	ug/g	0.84	0.08	0.23	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	<50	<50	50
VPHs (VHs6-10 minus BTEX)	Dry Weight	ug/g	<50	<50	<50	50
Extractable Petroleum Hydrocarbons - Soil						
LEPHs	Dry Weight	ug/g	864	154	277	20
HEPHs	Dry Weight	ug/g	627	377	214	20
Polycyclic Aromatic Hydrocarbons - Soil						
Acenaphthene	Dry Weight	ug/g	<0.05	<0.05	<0.05	0.05
Acenaphthylene	Dry Weight	ug/g	<0.05	<0.05	<0.05	0.05
Anthracene	Dry Weight	ug/g	<0.05	<0.05	<0.05	0.05
Benzo(a)anthracene	Dry Weight	ug/g	<0.05	<0.05	<0.05	0.05
Benzo(a)pyrene	Dry Weight	ug/g	<0.05	<0.05	<0.05	0.05
Benzo(b)fluoranthene	Dry Weight	ug/g	<0.05	<0.05	<0.05	0.05
Benzo(g,h,i)perylene	Dry Weight	ug/g	<0.05	<0.05	<0.05	0.05
Benzo(k)fluoranthene	Dry Weight	ug/g	<0.05	<0.05	<0.05	0.05
Chrysene	Dry Weight	ug/g	<0.05	<0.05	<0.05	0.05
Dibenzo(a,h)anthracene	Dry Weight	ug/g	<0.05	<0.05	<0.05	0.05
Fluoranthene	Dry Weight	ug/g	<0.05	<0.05	<0.05	0.05
Fluorene	Dry Weight	ug/g	<0.05	<0.05	<0.05	0.05
Indeno(1,2,3-c,d)pyrene	Dry Weight	ug/g	<0.05	<0.05	<0.05	0.05
Naphthalene	Dry Weight	ug/g	0.06	<0.05	0.28	0.05
Phenanthrene	Dry Weight	ug/g	<0.05	<0.05	<0.05	0.05
Pyrene	Dry Weight	ug/g	<0.05	<0.05	<0.05	0.05
PAH - Soil - Surrogate Recovery						
2-Fluorobiphenyl	PAH - Surrogate	%	37	102	76	40-130
Nitrobenzene-d5	PAH - Surrogate	%	NA	98	111	40-130
p-Terphenyl-d14	PAH - Surrogate	%	6	92	16	40-130

Exova
#104, 19575-55 A Ave.
Surrey, British Columbia
V3S 8P8, Canada

T: +1 (604) 514-3322
F: +1 (604) 514-3323
E: Surrey@exova.com
W: www.exova.com

Exova

Analytical Report

Bill To:	EBA Engineering Consulting Lt	Project:	
Report To:	EBA Engineering Consulting Lt	ID:	W23101161
	Calcite Business Centre	Name:	
	Unit 6, 151 Industrial Road	Location:	
	Whitehorse, YT, Canada	LSD:	
	Y1A 2V3	P.O.:	
Attn:	Nicole Jacques	Acct code:	
Sampled By:	NRJ		
Company:			

Lot ID:	**760798**
Control Number:	A171812
Date Received:	Sep 3, 2010
Date Reported:	Sep 10, 2010
Report Number:	1355108

Reference Number	760798-3
Sample Date	Aug 31, 2010
Sample Time	NA
Sample Location	
Sample Description	Southwest / 0.1m
Matrix	Soil

Analyte		Units	Results	Results	Results	Nominal Detection Limit
Metals Strong Acid Digestion						
Antimony	Strong Acid Extractable	ug/g	<0.5			0.5
Arsenic	Strong Acid Extractable	ug/g	9.2			0.2
Barium	Strong Acid Extractable	ug/g	258			0.03
Beryllium	Strong Acid Extractable	ug/g	0.29			0.01
Cadmium	Strong Acid Extractable	ug/g	1.1			0.05
Chromium	Strong Acid Extractable	ug/g	44.4			0.04
Cobalt	Strong Acid Extractable	ug/g	11.5			0.05
Copper	Strong Acid Extractable	ug/g	37.2			0.05
Lead	Strong Acid Extractable	ug/g	81.7			0.3
Mercury	Strong Acid Extractable	ug/g	0.103			0.003
Molybdenum	Strong Acid Extractable	ug/g	2.0			0.05
Nickel	Strong Acid Extractable	ug/g	62.7			0.1
Selenium	Strong Acid Extractable	ug/g	0.8			0.3
Silver	Strong Acid Extractable	ug/g	<0.2			0.2
Tin	Strong Acid Extractable	ug/g	0.7			0.2
Vanadium	Strong Acid Extractable	ug/g	32.1			0.1
Zinc	Strong Acid Extractable	ug/g	204			0.1
Soil Acidity						
pH	1:2 sample to water	pH	7.6			0.5

Exova
#104, 19575-55 A Ave.
Surrey, British Columbia
V3S 8P8, Canada

T: +1 (604) 514-3322
F: +1 (604) 514-3323
E: Surrey@exova.com
W: www.exova.com

Exova

Analytical Report

Bill To:	EBA Engineering Consulting Lt	Project:		Lot ID:	**760798**
Report To:	EBA Engineering Consulting Lt	ID:	W23101161	Control Number:	A171812
	Calcite Business Centre	Name:		Date Received:	Sep 3, 2010
	Unit 6, 151 Industrial Road	Location:		Date Reported:	Sep 10, 2010
	Whitehorse, YT, Canada	LSD:		Report Number:	1355108
	Y1A 2V3	P.O.:			
Attn:	Nicole Jacques	Acct code:			
Sampled By:	NRJ				
Company:					

Reference Number	760798-5
Sample Date	Aug 31, 2010
Sample Time	NA
Sample Location	
Sample Description	Dup01
Matrix	Soil

Analyte		Units	Results	Results	Results	Nominal Detection Limit
Mono-Aromatic Hydrocarbons - Soil						
Benzene	Dry Weight	ug/g	<0.02			0.02
Toluene	Dry Weight	ug/g	<0.05			0.05
Ethylbenzene	Dry Weight	ug/g	<0.05			0.05
Total Xylenes (m,p,o)	Dry Weight	ug/g	0.19			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
Extractable Petroleum Hydrocarbons - Soil						
LEPHs	Dry Weight	ug/g	339			20
HEPHs	Dry Weight	ug/g	221			20
Polycyclic Aromatic Hydrocarbons - Soil						
Acenaphthene	Dry Weight	ug/g	<0.05			0.05
Acenaphthylene	Dry Weight	ug/g	<0.05			0.05
Anthracene	Dry Weight	ug/g	<0.05			0.05
Benzo(a)anthracene	Dry Weight	ug/g	<0.05			0.05
Benzo(a)pyrene	Dry Weight	ug/g	<0.05			0.05
Benzo(b)fluoranthene	Dry Weight	ug/g	<0.05			0.05
Benzo(g,h,i)perylene	Dry Weight	ug/g	<0.05			0.05
Benzo(k)fluoranthene	Dry Weight	ug/g	<0.05			0.05
Chrysene	Dry Weight	ug/g	<0.05			0.05
Dibenzo(a,h)anthracene	Dry Weight	ug/g	<0.05			0.05
Fluoranthene	Dry Weight	ug/g	<0.05			0.05
Fluorene	Dry Weight	ug/g	<0.05			0.05
Indeno(1,2,3-c,d)pyrene	Dry Weight	ug/g	<0.05			0.05
Naphthalene	Dry Weight	ug/g	0.37			0.05
Phenanthrene	Dry Weight	ug/g	<0.05			0.05
Pyrene	Dry Weight	ug/g	<0.05			0.05
PAH - Soil - Surrogate Recovery						
2-Fluorobiphenyl	PAH - Surrogate	%	77			40-130
Nitrobenzene-d5	PAH - Surrogate	%	NA			40-130
p-Terphenyl-d14	PAH - Surrogate	%	14			40-130

Exova
#104, 19575-55 A Ave.
Surrey, British Columbia
V3S 8P8, Canada

T: +1 (604) 514-3322
F: +1 (604) 514-3323
E: Surrey@exova.com
W: www.exova.com

Exova

Analytical Report

Bill To:	EBA Engineering Consulting Lt	Project:	
Report To:	EBA Engineering Consulting Lt	ID:	W23101161
	Calcite Business Centre	Name:	
	Unit 6, 151 Industrial Road	Location:	
	Whitehorse, YT, Canada	LSD:	
	Y1A 2V3	P.O.:	
Attn:	Nicole Jacques	Acct code:	
Sampled By:	NRJ		
Company:			

Lot ID:	**760798**
Control Number:	A171812
Date Received:	Sep 3, 2010
Date Reported:	Sep 10, 2010
Report Number:	1355108

Approved by: Andrew Garrard

Andrew Garrard, BSc
General Manager

Exova
#104, 19575-55 A Ave.
Surrey, British Columbia
V3S 8P8, Canada

T: +1 (604) 514-3322
F: +1 (604) 514-3323
E: Surrey@exova.com
W: www.exova.com

Exova

Quality Control

Bill To:	EBA Engineering Consulting Lt	Project:	
Report To:	EBA Engineering Consulting Lt	ID:	W23101161
	Calcite Business Centre	Name:	
	Unit 6, 151 Industrial Road	Location:	
	Whitehorse, YT, Canada	LSD:	
	Y1A 2V3	P.O.:	
Attn:	Nicole Jacques	Acct code:	
Sampled By:	NRJ		
Company:			

Lot ID:	**760798**
Control Number:	A171812
Date Received:	Sep 3, 2010
Date Reported:	Sep 10, 2010
Report Number:	1355108

Metals Strong Acid Digestion

Blanks	Units	Measured	Lower Limit	Upper Limit	Passed QC
Antimony	mg/L	0.0058	-0.0	0.0	yes
Arsenic	mg/L	-0.0007	-0.0	0.0	yes
Barium	mg/L	0.0004	-0.00	0.00	yes
Beryllium	mg/L	-0.0002	-0.00	0.00	yes
Cadmium	mg/L	0	-0.00	0.00	yes
Chromium	mg/L	0.0001	-0.00	0.00	yes
Cobalt	mg/L	-0.0028	-0.00	0.00	yes
Copper	mg/L	0.0008	-0.01	0.01	yes
Lead	mg/L	0.0029	-0.0	0.0	yes
Mercury	ug/L	-0.04	-0.045	0.067	yes
Molybdenum	mg/L	-0.0001	-0.00	0.00	yes
Nickel	mg/L	-0.0009	-0.0	0.0	yes
Selenium	mg/L	0.0017	-0.0	0.0	yes
Silver	mg/L	-0.0005	-0.0	0.0	yes
Tin	mg/L	-0.0006	-0.0	0.0	yes
Vanadium	mg/L	0.0011	-0.0	0.0	yes
Zinc	mg/L	0.0034	-0.0	0.0	yes
Date Acquired:	September 08, 2010				

Calibration Check	Units	% Recovery	Lower Limit	Upper Limit	Passed QC
Antimony	mg/L	98.25	85	115	yes
Arsenic	mg/L	92.55	85	115	yes
Barium	mg/L	99.70	80	120	yes
Beryllium	mg/L	104.00	80	120	yes
Cadmium	mg/L	103.50	80	120	yes
Chromium	mg/L	99.10	80	120	yes
Cobalt	mg/L	103.40	80	120	yes
Copper	mg/L	102.10	80	120	yes
Lead	mg/L	102.35	85	115	yes
Mercury	ug/L	97.30	85	115	yes
Molybdenum	mg/L	98.00	80	120	yes
Nickel	mg/L	102.80	80	120	yes
Selenium	mg/L	97.60	80	120	yes
Silver	mg/L	108.00	85	115	yes
Tin	mg/L	96.88	85	115	yes
Vanadium	mg/L	105.20	80	120	yes
Zinc	mg/L	107.60	80	120	yes
Date Acquired:	September 08, 2010				

Replicates	Units	Replicate 1	Replicate 2	% RSD Criteria	Absolute Criteria	Passed QC
Antimony	ug/g	<0.5	<0.5	30	3.0	yes
Arsenic	ug/g	9.9	10.3	30	1.0	yes
Barium	ug/g	569	587	30	1.00	yes

Exova
#104, 19575-55 A Ave.
Surrey, British Columbia
V3S 8P8, Canada

T: +1 (604) 514-3322
F: +1 (604) 514-3323
E: Surrey@exova.com
W: www.exova.com

Exova

Quality Control

Bill To:	EBA Engineering Consulting Lt	Project:	
Report To:	EBA Engineering Consulting Lt	ID:	W23101161
	Calcite Business Centre	Name:	
	Unit 6, 151 Industrial Road	Location:	
	Whitehorse, YT, Canada	LSD:	
	Y1A 2V3	P.O.:	
Attn:	Nicole Jacques	Acct code:	
Sampled By:	NRJ		
Company:			

Lot ID:	**760798**
Control Number:	A171812
Date Received:	Sep 3, 2010
Date Reported:	Sep 10, 2010
Report Number:	1355108

Metals Strong Acid Digestion - Continued

Replicates	Units	Replicate 1	Replicate 2	% RSD Criteria	Absolute Criteria	Passed QC
Beryllium	ug/g	0.31	0.32	30	0.50	yes
Cadmium	ug/g	0.83	0.91	30	0.50	yes
Chromium	ug/g	21.2	22.0	30	1.00	yes
Cobalt	ug/g	8.72	8.89	30	0.50	yes
Copper	ug/g	25.6	28.4	30	1.00	yes
Lead	ug/g	11.5	11.6	30	0.5	yes
Mercury	ug/g	0.066	0.065	30	0.500	yes
Molybdenum	ug/g	1.5	1.5	30	0.50	yes
Nickel	ug/g	35.2	36.8	30	0.5	yes
Selenium	ug/g	0.4	<0.3	30	0.5	yes
Silver	ug/g	<0.2	<0.2	30	0.5	yes
Tin	ug/g	0.2	<0.2	30	1.0	yes
Vanadium	ug/g	30.6	30.4	30	1.0	yes
Zinc	ug/g	92.2	95.2	30	1.0	yes
Date Acquired:	September 08, 2010					

Control Sample	Units	Measured	Lower Limit	Upper Limit	Passed QC
Antimony	ug/g	<0.5	-0.6	2.4	yes
Arsenic	ug/g	5.3	3.7	7.3	yes
Barium	ug/g	184	146.50	215.50	yes
Beryllium	ug/g	0.57	0.45	0.67	yes
Cadmium	ug/g	0.72	0.55	0.97	yes
Chromium	ug/g	47.9	30.05	57.95	yes
Cobalt	ug/g	10.0	7.76	12.44	yes
Copper	ug/g	43.1	32.46	50.34	yes
Lead	ug/g	21.4	17.8	26.0	yes
Mercury	ug/g	0.165	0.121	0.223	yes
Molybdenum	ug/g	1.8	1.28	2.54	yes
Nickel	ug/g	44.6	35.6	56.8	yes
Selenium	ug/g	0.4	-0.1	3.1	yes
Silver	ug/g	<0.2	-0.3	0.7	yes
Tin	ug/g	1.2	0.6	1.8	yes
Vanadium	ug/g	27.8	19.8	32.2	yes
Zinc	ug/g	207	167.0	233.0	yes
Date Acquired:	September 08, 2010				

Soil Acidity

Calibration Check	Units	% Recovery	Lower Limit	Upper Limit	Passed QC
pH	pH	99.44	98	102	yes
Date Acquired:	September 07, 2010				

Replicates	Units	Replicate 1	Replicate 2	% RSD Criteria	Absolute Criteria	Passed QC

Exova
#104, 19575-55 A Ave.
Surrey, British Columbia
V3S 8P8, Canada

T: +1 (604) 514-3322
F: +1 (604) 514-3323
E: Surrey@exova.com
W: www.exova.com

Exova

Quality Control

Bill To:	EBA Engineering Consulting Lt	Project:	
Report To:	EBA Engineering Consulting Lt	ID:	W23101161
	Calcite Business Centre	Name:	
	Unit 6, 151 Industrial Road	Location:	
	Whitehorse, YT, Canada	LSD:	
	Y1A 2V3	P.O.:	
Attn:	Nicole Jacques	Acct code:	
Sampled By:	NRJ		
Company:			

Lot ID:	**760798**
Control Number:	A171812
Date Received:	Sep 3, 2010
Date Reported:	Sep 10, 2010
Report Number:	1355108

Soil Acidity - Continued

Replicates	Units	Replicate 1	Replicate 2	% RSD Criteria	Absolute Criteria	Passed QC
pH	pH	6.9	6.8	3		yes
Date Acquired:	September 07, 2010					

Control Sample	Units	Measured	Lower Limit	Upper Limit	Passed QC
pH	pH	6.7	6.2	7.0	yes
Date Acquired:	September 07, 2010				

Mono-Aromatic Hydrocarbons - Soil

Blanks	Units	Measured	Lower Limit	Upper Limit	Passed QC
Benzene	ng	0	-0.02	0.02	yes
Toluene	ng	0.00615	-0.05	0.05	yes
Ethylbenzene	ng	0.00135	-0.05	0.05	yes
o-Xylene	ng	0.0024	-0.05	0.05	yes
m,p-Xylene	ng	0.003	-0.05	0.05	yes
Total Xylenes (m,p,o)	ng	0.0054	-0.05	0.05	yes
Styrene	ng	0	-0.05	0.05	yes
Methyl t-Butyl Ether	ng	0	-0.05	0.05	yes
Date Acquired:	September 07, 2010				

Calibration Check	Units	% Recovery	Lower Limit	Upper Limit	Passed QC
Benzene	ng	101.21	87	113	yes
Toluene	ng	98.39	88	113	yes
Ethylbenzene	ng	97.17	82	107	yes
o-Xylene	ng	101.34	87	109	yes
m,p-Xylene	ng	95.52	88	112	yes
Total Xylenes (m,p,o)	ng	97.46	89	103	yes
Styrene	ng	101.32	78	106	yes
Methyl t-Butyl Ether	ng	101.66	84	118	yes
Date Acquired:	September 07, 2010				

Replicates	Units	Replicate 1	Replicate 2	% RSD Criteria	Absolute Criteria	Passed QC
Benzene	ug/g	<0.02	<0.02	60	0.10	yes
Toluene	ug/g	<0.05	<0.05	60	0.10	yes
Ethylbenzene	ug/g	1.36	1.39	60	0.10	yes
o-Xylene	ug/g	<0.05	0.05	60	0.10	yes
m,p-Xylene	ug/g	9.21	9.46	60	0.10	yes
Total Xylenes (m,p,o)	ug/g	9.26	9.51	60	0.10	yes
Styrene	ug/g	<0.05	<0.05	60	0.10	yes
Methyl t-Butyl Ether	ug/g	<0.05	<0.05	60	0.10	yes
Date Acquired:	September 07, 2010					

Matrix Spike	Units	% Recovery	Lower Limit	Upper Limit	Passed QC

Exova
#104, 19575-55 A Ave.
Surrey, British Columbia
V3S 8P8, Canada

T: +1 (604) 514-3322
F: +1 (604) 514-3323
E: Surrey@exova.com
W: www.exova.com

Exova

Quality Control

Bill To:	EBA Engineering Consulting Lt	Project:	
Report To:	EBA Engineering Consulting Lt	ID:	W23101161
	Calcite Business Centre	Name:	
	Unit 6, 151 Industrial Road	Location:	
	Whitehorse, YT, Canada	LSD:	
	Y1A 2V3	P.O.:	
Attn:	Nicole Jacques	Acct code:	
Sampled By:	NRJ		
Company:			

Lot ID:	**760798**
Control Number:	A171812
Date Received:	Sep 3, 2010
Date Reported:	Sep 10, 2010
Report Number:	1355108

Mono-Aromatic Hydrocarbons - Soil - Continued

Matrix Spike	Units	% Recovery	Lower Limit	Upper Limit	Passed QC
Benzene	ug/g	108	77	127	yes
Toluene	ug/g	108	76	126	yes
Ethylbenzene	ug/g	106	70	130	yes
o-Xylene	ug/g	113	70	130	yes
m,p-Xylene	ug/g	104	70	130	yes
Total Xylenes (m,p,o)	ug/g	107	70	130	yes
Styrene	ug/g	107	80	120	yes
Methyl t-Butyl Ether	ug/g	116	80	120	yes

Date Acquired: September 07, 2010

Volatile Petroleum Hydrocarbons - Soil

Blanks	Units	Measured	Lower Limit	Upper Limit	Passed QC
VHs6-10	ng	3.41025	-50	50	yes
VPHs (VHs6-10 minus	ng	3.39735	-50	50	yes
VHs6-oXylene	ng	2.2959	-50	50	yes
VHsoXylene-10	ng	1.11435	-50.0	50.0	yes

Date Acquired: September 07, 2010

Replicates	Units	Replicate 1	Replicate 2	% RSD Criteria	Absolute Criteria	Passed QC
VHs6-10	ug/g	560	580	60	10	yes
VPHs (VHs6-10 minus	ug/g	550	570	60	10	yes
VHs6-oXylene	ug/g	130	130	60	10	yes
VHsoXylene-10	ug/g	430	440	60	10.0	yes

Date Acquired: September 07, 2010

Extractable Petroleum Hydrocarbons - Soil

Blanks	Units	Measured	Lower Limit	Upper Limit	Passed QC
EPHs10-19	ug/mL	0	-20	20	yes
EPHs19-32	ug/mL	0	-20	20	yes

Date Acquired: September 07, 2010

Calibration Check	Units	% Recovery	Lower Limit	Upper Limit	Passed QC
EPHs10-19	ug/mL	94.96	85	115	yes
EPHs19-32	ug/mL	94.96	85	115	yes

Date Acquired: September 07, 2010

Certified Reference Material	Units	Measured	Target	Lower Limit	Upper Limit	Passed QC
EPHs10-19	ug/g	1910	2500	1702	3346	yes
EPHs19-32	ug/g	2520	3140	2469	4059	yes

Exova
#104, 19575-55 A Ave.
Surrey, British Columbia
V3S 8P8, Canada

T: +1 (604) 514-3322
F: +1 (604) 514-3323
E: Surrey@exova.com
W: www.exova.com

Exova

Quality Control

Bill To:	EBA Engineering Consulting Lt	Project:	
Report To:	EBA Engineering Consulting Lt	ID:	W23101161
	Calcite Business Centre	Name:	
	Unit 6, 151 Industrial Road	Location:	
	Whitehorse, YT, Canada	LSD:	
	Y1A 2V3	P.O.:	
Attn:	Nicole Jacques	Acct code:	
Sampled By:	NRJ		
Company:			

Lot ID:	**760798**
Control Number:	A171812
Date Received:	Sep 3, 2010
Date Reported:	Sep 10, 2010
Report Number:	1355108

Extractable Petroleum Hydrocarbons - Soil - Continued

Certified Reference Material	Units	Measured	Target	Lower Limit	Upper Limit	Passed QC
Date Acquired:	September 07, 2010					

Replicates	Units	Replicate 1	Replicate 2	% RSD Criteria	Absolute Criteria	Passed QC
EPHs10-19	ug/g	3270	3210	60	100	yes
EPHs19-32	ug/g	80	70	60	100	yes
Date Acquired:	September 07, 2010					

Matrix Spike	Units	% Recovery	Lower Limit	Upper Limit	Passed QC
EPHs10-19	ug/g	102	80	128	yes
EPHs19-32	ug/g	102	82	135	yes
Date Acquired:	September 07, 2010				

Polycyclic Aromatic Hydrocarbons - Soil

Blanks	Units	Measured	Lower Limit	Upper Limit	Passed QC
Acenaphthene	ng/mL	0	-0.05	0.05	yes
Acenaphthylene	ng/mL	0	-0.05	0.05	yes
Anthracene	ng/mL	0	-0.05	0.05	yes
Benzo(a)anthracene	ng/mL	0.00018	-0.05	0.05	yes
Benzo(a)pyrene	ng/mL	0	-0.05	0.05	yes
Benzo(b)fluoranthene	ng/mL	0	-0.05	0.05	yes
Benzo(g,h,i)perylene	ng/mL	0	-0.05	0.05	yes
Benzo(k)fluoranthene	ng/mL	0	-0.05	0.05	yes
Chrysene	ng/mL	0.00017	-0.05	0.05	yes
Dibenzo(a,h)anthracene	ng/mL	0	-0.05	0.05	yes
Fluoranthene	ng/mL	0.00022	-0.05	0.05	yes
Fluorene	ng/mL	0	-0.05	0.05	yes
Indeno(1,2,3-c,d)pyrene	ng/mL	0	-0.05	0.05	yes
Naphthalene	ug/mL	0.00039	-0.05	0.05	yes
Phenanthrene	ng/mL	0	-0.05	0.05	yes
Pyrene	ng/mL	0.00058	-0.05	0.05	yes
Date Acquired:	September 07, 2010				

Calibration Check	Units	% Recovery	Lower Limit	Upper Limit	Passed QC
Acenaphthene	ng/mL	99.97	80	120	yes
Acenaphthylene	ng/mL	99.36	80	120	yes
Anthracene	ng/mL	99.32	80	120	yes
Benzo(a)anthracene	ng/mL	98.90	80	120	yes
Benzo(a)pyrene	ng/mL	99.60	80	120	yes
Benzo(b)fluoranthene	ng/mL	99.97	80	120	yes
Benzo(g,h,i)perylene	ng/mL	99.97	80	120	yes
Benzo(k)fluoranthene	ng/mL	98.45	80	120	yes

Exova
#104, 19575-55 A Ave.
Surrey, British Columbia
V3S 8P8, Canada

T: +1 (604) 514-3322
F: +1 (604) 514-3323
E: Surrey@exova.com
W: www.exova.com

Exova

Quality Control

Bill To:	EBA Engineering Consulting Lt	Project:	
Report To:	EBA Engineering Consulting Lt	ID:	W23101161
	Calcite Business Centre	Name:	
	Unit 6, 151 Industrial Road	Location:	
	Whitehorse, YT, Canada	LSD:	
	Y1A 2V3	P.O.:	
Attn:	Nicole Jacques	Acct code:	
Sampled By:	NRJ		
Company:			

Lot ID:	**760798**
Control Number:	A171812
Date Received:	Sep 3, 2010
Date Reported:	Sep 10, 2010
Report Number:	1355108

Polycyclic Aromatic Hydrocarbons - Soil - Continued

Calibration Check	Units	% Recovery	Lower Limit	Upper Limit	Passed QC
Chrysene	ng/mL	99.82	80	120	yes
Dibenzo(a,h)anthracene	ng/mL	100.19	80	120	yes
Fluoranthene	ng/mL	98.79	80	120	yes
Fluorene	ng/mL	99.54	80	120	yes
Indeno(1,2,3-c,d)pyrene	ng/mL	100.47	80	120	yes
Naphthalene	ug/mL	99.92	80	120	yes
Phenanthrene	ng/mL	99.85	80	120	yes
Pyrene	ng/mL	98.88	80	120	yes
Date Acquired:	September 07, 2010				

Certified Reference Material	Units	Measured	Target	Lower Limit	Upper Limit	Passed QC
Acenaphthene	ug/g	0.71	0.72	0.28	1.27	yes
Acenaphthylene	ug/g	0.80	0.68	0.33	1.64	yes
Anthracene	ug/g	0.66	0.91	0.51	1.27	yes
Benzo(a)anthracene	ug/g	2.64	3.16	1.87	3.81	yes
Benzo(a)pyrene	ug/g	1.60	2.09	1.63	2.20	yes
Benzo(b)fluoranthene	ug/g	1.72	3.17	1.20	2.64	yes
Benzo(g,h,i)perylene	ug/g	1.68	1.59	0.23	3.23	yes
Benzo(k)fluoranthene	ug/g	1.11	1.44	0.69	1.50	yes
Chrysene	ug/g	2.86	2.84	2.03	3.37	yes
Dibenzo(a,h)anthracene	ug/g	0.48	0.46	0.12	1.16	yes
Fluoranthene	ug/g	7.75	7.59	2.36	10.40	yes
Fluorene	ug/g	0.79	1.14	0.62	1.10	yes
Indeno(1,2,3-c,d)pyrene	ug/g	1.58	1.96	0.51	2.95	yes
Naphthalene	ug/g	5.98	5.40	4.25	5.75	yes
Phenanthrene	ug/g	5.26	5.21	3.89	6.51	yes
Pyrene	ug/g	6.83	6.43	5.53	6.97	yes
Date Acquired:	September 07, 2010					

Replicates	Units	Replicate 1	Replicate 2	% RSD Criteria	Absolute Criteria	Passed QC
Acenaphthene	ug/g	<0.05	<0.05	60	0.25	yes
Acenaphthylene	ug/g	<0.05	<0.05	60	0.25	yes
Anthracene	ug/g	<0.05	<0.05	60	0.25	yes
Benzo(a)anthracene	ug/g	<0.05	<0.05	60	0.25	yes
Benzo(a)pyrene	ug/g	<0.05	<0.05	60	0.25	yes
Benzo(b)fluoranthene	ug/g	<0.05	<0.05	60	0.25	yes
Benzo(g,h,i)perylene	ug/g	<0.05	<0.05	60	0.25	yes
Benzo(k)fluoranthene	ug/g	<0.05	<0.05	60	0.25	yes
Chrysene	ug/g	<0.05	<0.05	60	0.25	yes
Dibenzo(a,h)anthracene	ug/g	<0.05	<0.05	60	0.25	yes
Fluoranthene	ug/g	<0.05	<0.05	60	0.25	yes
Fluorene	ug/g	<0.05	<0.05	60	0.25	yes

Exova
#104, 19575-55 A Ave.
Surrey, British Columbia
V3S 8P8, Canada

T: +1 (604) 514-3322
F: +1 (604) 514-3323
E: Surrey@exova.com
W: www.exova.com

Exova

Quality Control

Bill To:	EBA Engineering Consulting Lt	Project:	
Report To:	EBA Engineering Consulting Lt	ID:	W23101161
	Calcite Business Centre	Name:	
	Unit 6, 151 Industrial Road	Location:	
	Whitehorse, YT, Canada	LSD:	
	Y1A 2V3	P.O.:	
Attn:	Nicole Jacques	Acct code:	
Sampled By:	NRJ		
Company:			

Lot ID:	**760798**
Control Number:	A171812
Date Received:	Sep 3, 2010
Date Reported:	Sep 10, 2010
Report Number:	1355108

Polycyclic Aromatic Hydrocarbons - Soil - Continued

Replicates	Units	Replicate 1	Replicate 2	% RSD Criteria	Absolute Criteria	Passed QC
Indeno(1,2,3-c,d)pyrene	ug/g	<0.05	<0.05	60	0.25	yes
Naphthalene	ug/g	<0.05	<0.05	60	0.25	yes
Phenanthrene	ug/g	<0.05	<0.05	60	0.25	yes
Pyrene	ug/g	<0.05	<0.05	60	0.25	yes
Date Acquired:	September 07, 2010					

Control Sample	Units	Measured	Lower Limit	Upper Limit	Passed QC
Acenaphthene	ug/g	119	50.01	129.99	yes
Acenaphthylene	ug/g	120	50.01	129.99	yes
Anthracene	ug/g	114	50.01	129.99	yes
Benzo(a)anthracene	ug/g	114	50.01	129.99	yes
Benzo(a)pyrene	ug/g	105	50.01	129.99	yes
Benzo(b)fluoranthene	ug/g	108	50.01	129.99	yes
Benzo(g,h,i)perylene	ug/g	101	50.01	129.99	yes
Benzo(k)fluoranthene	ug/g	103	50.01	129.99	yes
Chrysene	ug/g	110	50.01	129.99	yes
Dibenzo(a,h)anthracene	ug/g	90.8	50.01	129.99	yes
Fluoranthene	ug/g	128	50.01	129.99	yes
Fluorene	ug/g	120	50.01	129.99	yes
Indeno(1,2,3-c,d)pyrene	ug/g	95.0	50.01	129.99	yes
Naphthalene	ug/g	127	50.01	129.99	yes
Phenanthrene	ug/g	118	50.01	129.99	yes
Pyrene	ug/g	128	50.01	129.99	yes
Date Acquired:	September 07, 2010				

PAH - Soil - Surrogate Recovery

Calibration Check	Units	% Recovery	Lower Limit	Upper Limit	Passed QC
2-Fluorobiphenyl	%	99.61	80	120	yes
Nitrobenzene-d5	%	100.52	80	120	yes
p-Terphenyl-d14	%	98.37	80	120	yes
Date Acquired:	September 07, 2010				

Certified Reference Material	Units	Measured	Target	Lower Limit	Upper Limit	Passed QC
2-Fluorobiphenyl	%	105		0	0	yes
Nitrobenzene-d5	%	105		0	0	yes
p-Terphenyl-d14	%	108		0	0	yes
Date Acquired:	September 07, 2010					

Replicates	Units	Replicate 1	Replicate 2	% RSD Criteria	Absolute Criteria	Passed QC
2-Fluorobiphenyl	%	111	110	60	0	yes
Nitrobenzene-d5	%	109	107	60	0	yes

Exova
#104, 19575-55 A Ave.
Surrey, British Columbia
V3S 8P8, Canada

T: +1 (604) 514-3322
F: +1 (604) 514-3323
E: Surrey@exova.com
W: www.exova.com

Exova

Quality Control

Bill To:	EBA Engineering Consulting Lt	Project:	
Report To:	EBA Engineering Consulting Lt	ID:	W23101161
	Calcite Business Centre	Name:	
	Unit 6, 151 Industrial Road	Location:	
	Whitehorse, YT, Canada	LSD:	
	Y1A 2V3	P.O.:	
Attn:	Nicole Jacques	Acct code:	
Sampled By:	NRJ		
Company:			

Lot ID:	**760798**
Control Number:	A171812
Date Received:	Sep 3, 2010
Date Reported:	Sep 10, 2010
Report Number:	1355108

PAH - Soil - Surrogate Recovery - Continued

Replicates	Units	Replicate 1	Replicate 2	% RSD Criteria	Absolute Criteria	Passed QC
p-Terphenyl-d14	%	114	113	60	0	yes
Date Acquired:	September 07, 2010					

Control Sample	Units	Measured	Lower Limit	Upper Limit	Passed QC
2-Fluorobiphenyl	%	120	40	130	yes
Nitrobenzene-d5	%	114	40	130	yes
p-Terphenyl-d14	%	114	40	130	yes
Date Acquired:	September 07, 2010				

Exova
#104, 19575-55 A Ave.
Surrey, British Columbia
V3S 8P8, Canada

T: +1 (604) 514-3322
F: +1 (604) 514-3323
E: Surrey@exova.com
W: www.exova.com

Exova

Methodology and Notes

Bill To:	EBA Engineering Consulting Lt	Project:	
Report To:	EBA Engineering Consulting Lt	ID:	W23101161
	Calcite Business Centre	Name:	
	Unit 6, 151 Industrial Road	Location:	
	Whitehorse, YT, Canada	LSD:	
	Y1A 2V3	P.O.:	
Attn:	Nicole Jacques	Acct code:	
Sampled By:	NRJ		
Company:			

Lot ID:	**760798**
Control Number:	A171812
Date Received:	Sep 3, 2010
Date Reported:	Sep 10, 2010
Report Number:	1355108

Method of Analysis

Method Name	Reference	Method	Date Analysis Started	Location
BTEX-VPH - Soil	BCELM	* Volatile Hydrocarbons in Solids by GC/FID, VH Solids	07-Sep-10	Exova Surrey
EPH - Soil	BCELM	* Extractable Petroleum Hydrocarbons (EPH) in Solids by GC/FID, EPH Solids	07-Sep-10	Exova Surrey
Metals (Strong Acid Leachable) in soils	B.C.M.O.E	* Strong Acid Leachable Metals (SALM) in Soil, V 1.0, SALM	08-Sep-10	Exova Surrey
PAH - Soil (Surrey)	BCELM	* Polycyclic Aromatic Hydrocarbons (PAHs) In Solids by GC/MS/SIM, PAH Solids	07-Sep-10	Exova Surrey
PAH - Soil (Surrey)	US EPA	* Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry, 8270	07-Sep-10	Exova Surrey
pH and EC - 1:2 (Surrey)	Carter	* Soil pH (1:2 Water), 16.2	07-Sep-10	Exova Surrey

** Reference Method Modified*

References

B.C.M.O.E	B.C. Ministry of Environment
BCELM	B.C. Environmental Laboratory Manual
McKeague	Manual on Soil Sampling and Methods of Analysis
US EPA	US Environmental Protection Agency Test Methods

Guidelines

Guideline Description	Yukon CSR Soils Parkland
Guideline Source	Yukon Environment Act - Contaminated Sites Regulation, OIC 2002/171
Guideline Comments	Yukon CSR Schedule 1 Generic Numerical Soil Standards for Parkland Use. Schedule 2 Matrix Numerical Soil Standards are site-specific. The most stringent standard is presented here for comparison. Consult the CSR for applicable limits.

Comments:

- Surrogate recovery of Nitrobenzene-d5 is not available and p-Terphenyl-d14 does not meet acceptance criteria due to matrix interference.

Exova
#104, 19575-55 A Ave.
Surrey, British Columbia
V3S 8P8, Canada

T: +1 (604) 514-3322
F: +1 (604) 514-3323
E: Surrey@exova.com
W: www.exova.com

Exova

Methodology and Notes

Bill To:	EBA Engineering Consulting Lt	Project:	
Report To:	EBA Engineering Consulting Lt	ID:	W23101161
	Calcite Business Centre	Name:	
	Unit 6, 151 Industrial Road	Location:	
	Whitehorse, YT, Canada	LSD:	
	Y1A 2V3	P.O.:	
Attn:	Nicole Jacques	Acct code:	
Sampled By:	NRJ		
Company:			

Lot ID:	**760798**
Control Number:	A171812
Date Received:	Sep 3, 2010
Date Reported:	Sep 10, 2010
Report Number:	1355108

The comparison of test results to guideline limits is provided for information purposes only. This is not to be taken as a statement of conformance / nonconformance to any guideline, regulation or limit. The data user is responsible for all conclusions drawn with respect to the data and is advised to consult official regulatory references when evaluating compliance.

Please direct any inquiries regarding this report to our Client Services group.
Results relate only to samples as submitted.

Exova
#104, 19575 - 55A Avenue
Surrey, B.C.
V3S-8P8, Canada

T: +1 (604) 514-3322
F: +1 (604) 514-3323
E: NWL-Surrey@exova.com
W: www.exova.com

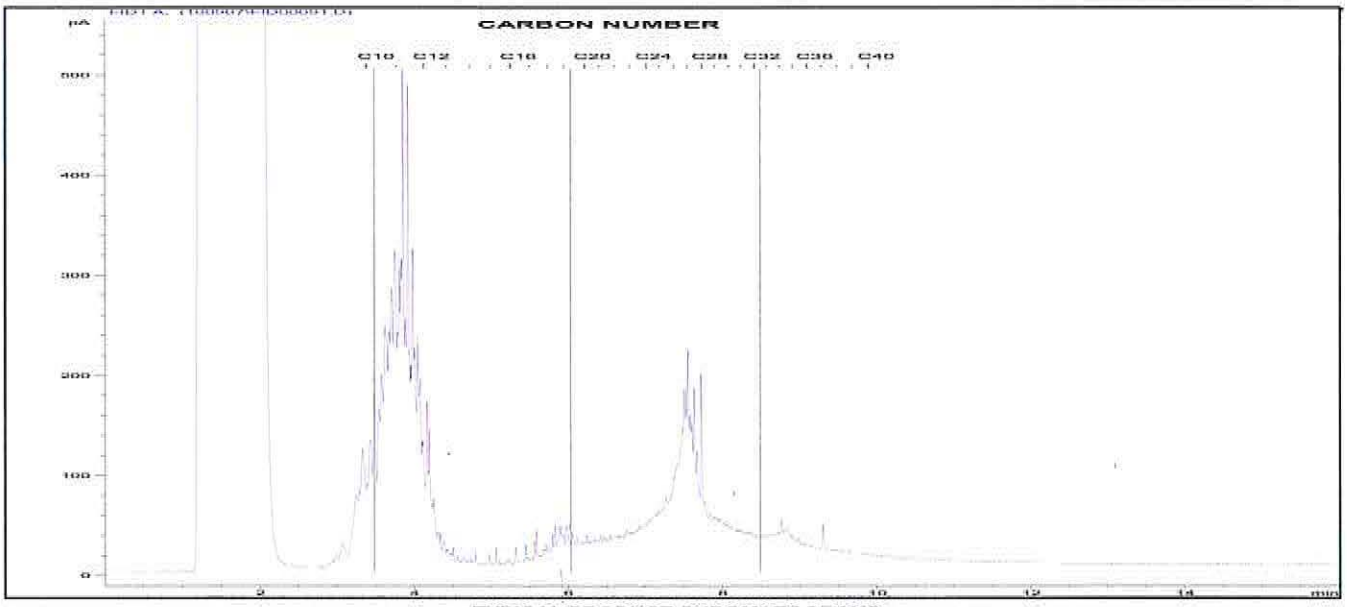
Exova

Hydrocarbon Chromatogram

Bill To:	EBA Engineering - Edmonton	Project ID:	W23101161	Lot ID:	**760798**
Report To:	EBA Engineering - Edmonton	Name:		Control Number:	A171812
	Calcite Business Centre	Location:		Date Received:	Sep 3, 2010
	Unit 6, 151 Industrial Road	LSD:		Date Reported:	Sep 9, 2010
	Whitehorse, YT, Canada	P.O.:		Report Number:	1355108
	Y1A 2V3				
Attn:	Nicole Jacques				
Sampled by:	NRJ				
Company:					

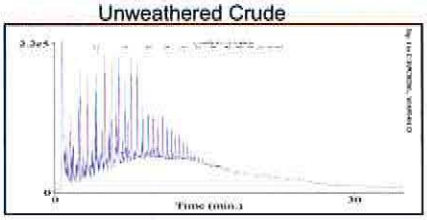
Exova Number: 760798-1
Sample Date: Aug 31, 2010

Sample Description: 0.1m Northwest

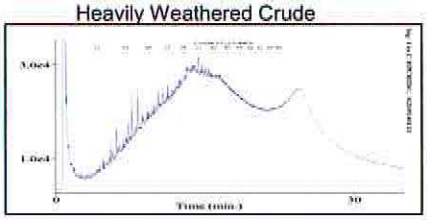


TYPICAL PRODUCT CHROMATOGRAMS

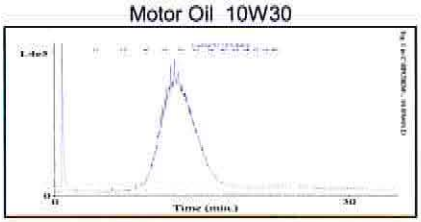
Unweathered Crude



Heavily Weathered Crude



Motor Oil 10W30



Product Carbon Number Ranges

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

Exova
#104, 19575 - 55A Avenue
Surrey, B.C.
V3S-8P8, Canada

T: +1 (604) 514-3322
F: +1 (604) 514-3323
E: NWL-Surrey@exova.com
W: www.exova.com

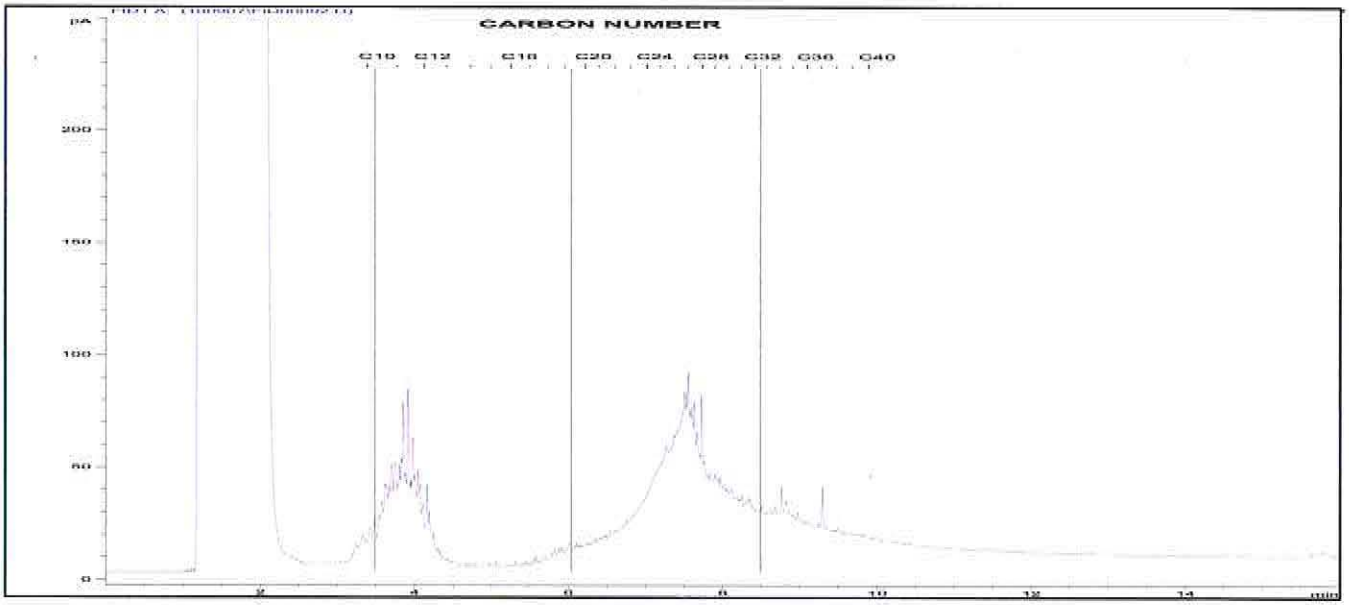
Exova

Hydrocarbon Chromatogram

Bill To:	EBA Engineering - Edmonton	Project ID:	W23101161	Lot ID:	**760798**
Report To:	EBA Engineering - Edmonton	Name:		Control Number:	A171812
	Calcite Business Centre	Location:		Date Received:	Sep 3, 2010
	Unit 6, 151 Industrial Road	LSD:		Date Reported:	Sep 9, 2010
	Whitehorse, YT, Canada	P.O.:		Report Number:	1355108
	Y1A 2V3				
Attn:	Nicole Jacques				
Sampled by:	NRJ				
Company:					

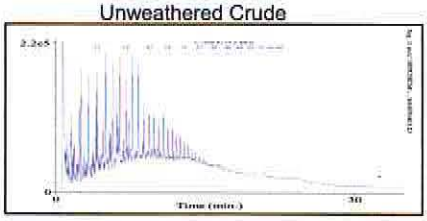
Exova Number: 760798-2
Sample Date: Aug 31, 2010

Sample Description: 0.1m Northeast

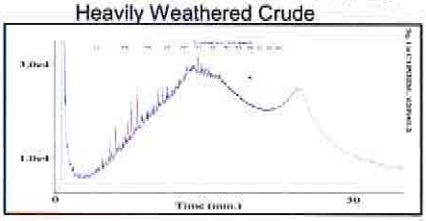


TYPICAL PRODUCT CHROMATOGRAMS

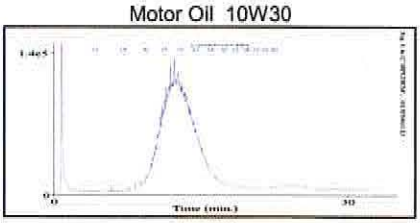
Unweathered Crude



Heavily Weathered Crude



Motor Oil 10W30



Product Carbon Number Ranges

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

Exova
#104, 19575 - 55A Avenue
Surrey, B.C.
V3S-8P8, Canada

T: +1 (604) 514-3322
F: +1 (604) 514-3323
E: NWL-Surrey@exova.com
W: www.exova.com

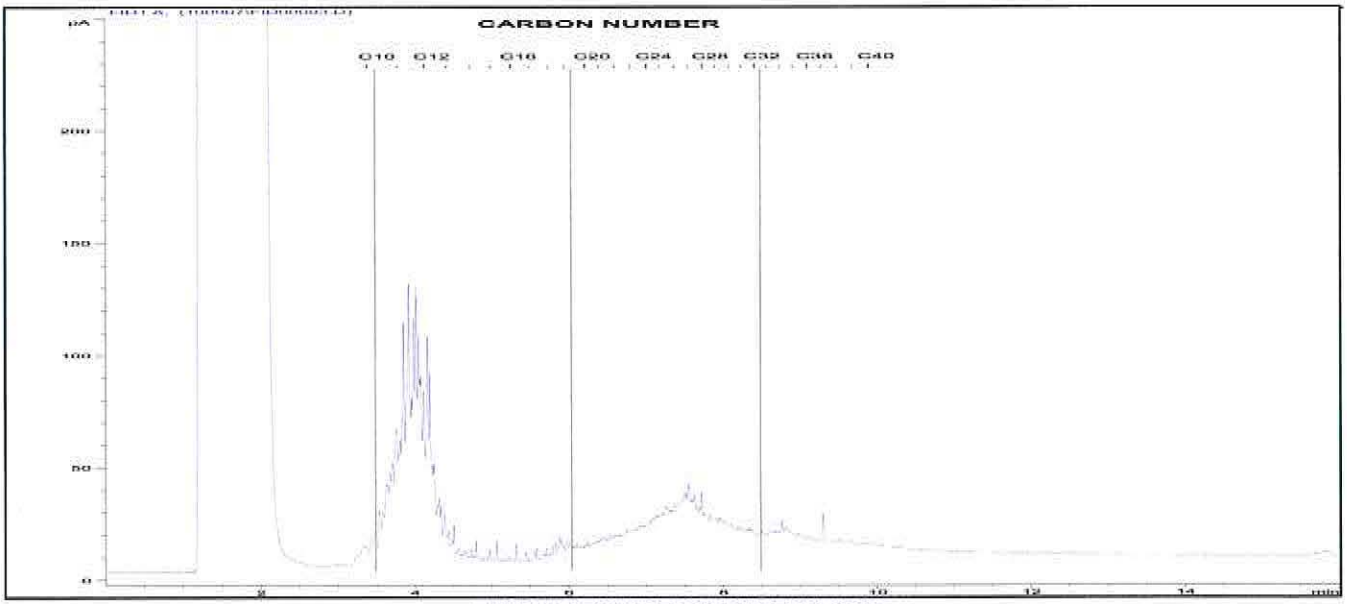
Exova

Hydrocarbon Chromatogram

Bill To:	EBA Engineering - Edmonton	Project ID:	W23101161	Lot ID:	**760798**
Report To:	EBA Engineering - Edmonton	Name:		Control Number:	A171812
	Calcite Business Centre	Location:		Date Received:	Sep 3, 2010
	Unit 6, 151 Industrial Road	LSD:		Date Reported:	Sep 9, 2010
	Whitehorse, YT, Canada	P.O.:		Report Number:	1355108
	Y1A 2V3				
Attn:	Nicole Jacques				
Sampled by:	NRJ				
Company:					

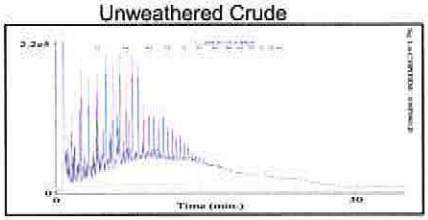
Exova Number: 760798-4
Sample Date: Aug 31, 2010

Sample Description: 0.1m Southeast

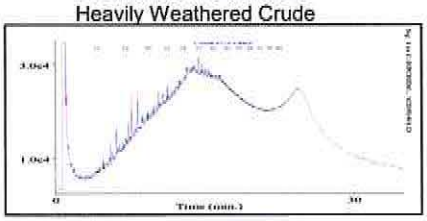


TYPICAL PRODUCT CHROMATOGRAMS

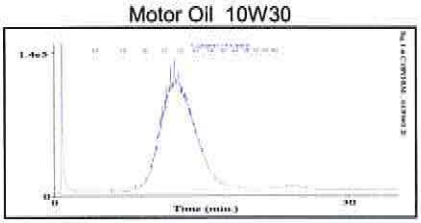
Unweathered Crude



Heavily Weathered Crude



Motor Oil 10W30



Product Carbon Number Ranges

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

Exova
#104, 19575 - 55A Avenue
Surrey, B.C.
V3S-8P8, Canada

T: +1 (604) 514-3322
F: +1 (604) 514-3323
E: NWL-Surrey@exova.com
W: www.exova.com

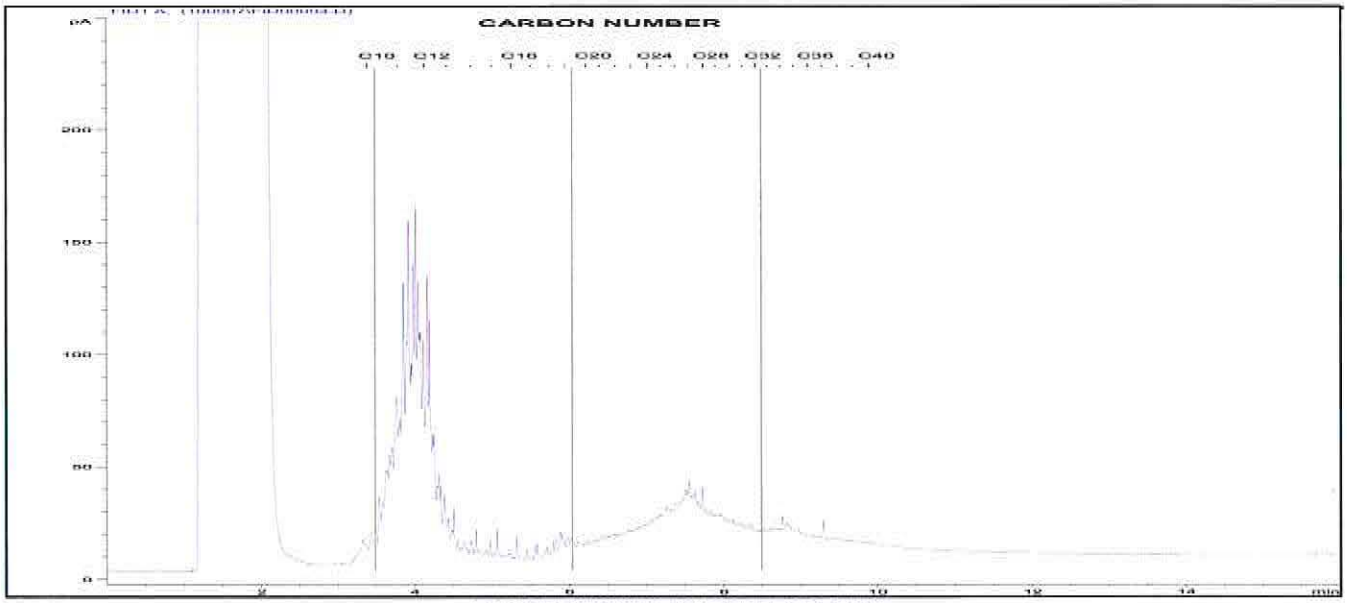
Exova

Hydrocarbon Chromatogram

Bill To:	EBA Engineering - Edmonton	Project ID:	W23101161	Lot ID:	**760798**
Report To:	EBA Engineering - Edmonton	Name:		Control Number:	A171812
	Calcite Business Centre	Location:		Date Received:	Sep 3, 2010
	Unit 6, 151 Industrial Road	LSD:		Date Reported:	Sep 9, 2010
	Whitehorse, YT, Canada	P.O.:		Report Number:	1355108
	Y1A 2V3				
Attn:	Nicole Jacques				
Sampled by:	NRJ				
Company:					

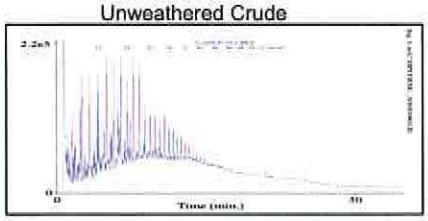
Exova Number: 760798-5
Sample Date: Aug 31, 2010

Sample Description: Dup01

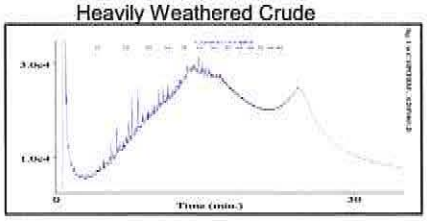


TYPICAL PRODUCT CHROMATOGRAMS

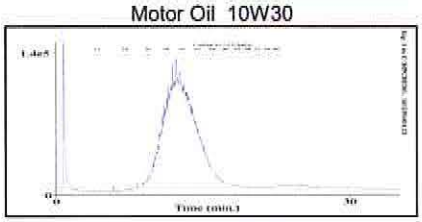
Unweathered Crude



Heavily Weathered Crude



Motor Oil 10W30



Product Carbon Number Ranges

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