

Certificate of Analysis

Nunatta Environmental Services Inc.

P.O. Box 267
Iqaluit, NU X0A 0H0
Attn: Jason Taylor

Phone: (867) 979-1488
Fax: (867) 979-1478

Client PO:
Project: Land Farm/N.G.S.I.
Custody: 61080

Report Date: 25-Aug-2010
Order Date: 20-Aug-2010

Order #: 1035041

This Certificate of Analysis contains analytical data applicable to the following samples as submitted:

Paracel ID	Client ID
1035041-01	Cell 3 Screened

Approved By:



Dale Robertson, BSc
Laboratory Director

Certificate of Analysis

Client: Nunatta Environmental Services Inc.

Report Date: 25-Aug-2010

Client PO:

Project Description: Land Farm/N.G.S.I.

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Analysis Summary Table

Analysis	Method Reference/Description	Extraction Date	Analysis Date
BTEX	EPA 8260 - P&T GC-MS	24-Aug-10	25-Aug-10
CCME PHC F1	CWS Tier 1 - P&T GC-FID	24-Aug-10	25-Aug-10
CCME PHC F2 - F4	CWS Tier 1 - GC-FID, extraction	24-Aug-10	25-Aug-10
Solids, %	Gravimetric, calculation	25-Aug-10	25-Aug-10

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Project Description: Land Farm/N.G.S.I.

Client ID:	Cell 3 Screened	-	-	-
Sample Date:	20-Aug-10	-	-	-
Sample ID:	1035041-01	-	-	-
MDL/Units	Soil	-	-	-

Physical Characteristics

% Solids	0.1 % by Wt.	89.9	-	-	-
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Volatiles

Benzene	0.03 ug/g dry	<0.03	-	-	-
Ethylbenzene	0.05 ug/g dry	<0.05	-	-	-
Toluene	0.05 ug/g dry	<0.05	-	-	-
m,p-Xylenes	0.05 ug/g dry	<0.05	-	-	-
o-Xylene	0.05 ug/g dry	<0.05	-	-	-
Xylenes, total	0.10 ug/g dry	<0.10	-	-	-
Toluene-d8	Surrogate	101%	-	-	-

Hydrocarbons

F1 PHCs (C6-C10)	10 ug/g dry	<10	-	-	-
F2 PHCs (C10-C16)	10 ug/g dry	1090	-	-	-
F3 PHCs (C16-C34)	10 ug/g dry	825	-	-	-
F4 PHCs (C34-C50)	10 ug/g dry	147	-	-	-

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Project Description: Land Farm/N.G.S.I.

Method Quality Control: Blank

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Hydrocarbons									
F1 PHCs (C6-C10)	ND	10	ug/g						
F2 PHCs (C10-C16)	ND	10	ug/g						
F3 PHCs (C16-C34)	ND	10	ug/g						
F4 PHCs (C34-C50)	ND	10	ug/g						
Volatiles									
Benzene	ND	0.03	ug/g						
Ethylbenzene	ND	0.05	ug/g						
Toluene	ND	0.05	ug/g						
m,p-Xylenes	ND	0.05	ug/g						
o-Xylene	ND	0.05	ug/g						
Xylenes, total	ND	0.10	ug/g						
Surrogate: Toluene-d8	8.12		ug/g		101	76-118			

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Client PO:

Project Description: Land Farm/N.G.S.I.

Method Quality Control: Duplicate

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Hydrocarbons									
F1 PHCs (C6-C10)	23	10	ug/g dry	22			3.9	32	
F2 PHCs (C10-C16)	ND	10	ug/g wet	ND				50	
F3 PHCs (C16-C34)	ND	10	ug/g wet	ND				50	
F4 PHCs (C34-C50)	ND	10	ug/g wet	ND				50	
Physical Characteristics									
% Solids	95.6	0.1	% by Wt.	96.0			0.4	25	
Volatiles									
Benzene	ND	0.03	ug/g dry	ND				50	
Ethylbenzene	ND	0.05	ug/g dry	ND				34	
Toluene	ND	0.05	ug/g dry	ND				32	
m,p-Xylenes	ND	0.05	ug/g dry	ND				35	
o-Xylene	ND	0.05	ug/g dry	ND				50	
Surrogate: Toluene-d8	10.0		ug/g dry	ND	103	76-118			

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Client PO:

Project Description: Land Farm/N.G.S.I.

Method Quality Control: Spike

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Hydrocarbons									
F1 PHCs (C6-C10)	97	10	ug/g	ND	96.8	80-120			
F2 PHCs (C10-C16)	63	10	ug/g	ND	78.8	61-129			
F3 PHCs (C16-C34)	175	10	ug/g	ND	87.5	61-129			
F4 PHCs (C34-C50)	120	10	ug/g	ND	100	61-129			
Volatiles									
Benzene	0.854	0.03	ug/g	ND	91.5	55-141			
Ethylbenzene	2.46	0.05	ug/g	ND	111	61-139			
Toluene	9.96	0.05	ug/g	ND	92.3	54-136			
m,p-Xylenes	6.99	0.05	ug/g	ND	104	61-139			
o-Xylene	2.97	0.05	ug/g	ND	110	60-142			
Surrogate: Toluene-d8	8.23		ug/g		103	76-118			

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Sample and QC Qualifiers Notes

None

Sample Data Revisions

None

Work Order Revisions/Comments:

None

Other Report Notes:

n/a: not applicable

MDL: Method Detection Limit

Source Result: Data used as source for matrix and duplicate samples

%REC: Percent recovery.

RPD: Relative percent difference.

Soil results are reported on a dry weight basis when the units are denoted with 'dry'.

Where %Solids is reported, moisture loss includes the loss of volatile hydrocarbons.

CCME PHC additional information:

- The method for the analysis of PHCs complies with the Reference Method for the CWS PHC and is validated for use in the laboratory. All prescribed quality criteria identified in the method has been met.
- F1 range corrected for BTEX.
- F2 to F3 ranges corrected for appropriate PAHs where available.
- The gravimetric heavy hydrocarbons (F4G) are not to be added to C6 to C50 hydrocarbons.
- In the case where F4 and F4G are both reported, the greater of the two results is to be used for comparison to CWS PHC criteria.



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e: paracel@paracellabs.com
www.paracellabs.com

Chain of Custody Record

Nº 61080

Pg. ___ of ___

Company Name: <u>N.G.S.I.</u>	Project Ref: <u>Land Farm / N.G.S.I.</u>
Contact Name: <u>Jason Taylor</u>	PO# _____
Address: <u>P.O. Box 267 Igouville NU, X0A 0H0</u>	Quote # _____ <input type="checkbox"/> Not Quoted
Tel: <u>(867) 979-1488</u> Cell: _____	Preservative to be added by Paracel? <input type="checkbox"/> Yes <input type="checkbox"/> No
Email: <u>munatth@northwestel.net</u>	

Matrix Types: S-Soil/Sed GW-Ground Water SW-Surface Water SS-Storm/Sanitary Sewer A-Air O-Other RDW-Regulated Drinking Water

Sample Information					Analysis Required															
Paracel Order #		Matrix	Air Volume	# Containers	Date Sampled dd/mm/yy	Hazardous? (Y/N)														
1035041																				
Sample Identification																				
1	cell 3 screened	S		1	08/20/10	x	x	x												N
2																				
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				

Comments: Regular turn around time (3 days) / characterization report to determine if weathered.

Relinquished By: Jason Taylor
Date: 08/20/10 Time: 9:30 AM

Received at Depot:
Date: _____ Time: _____

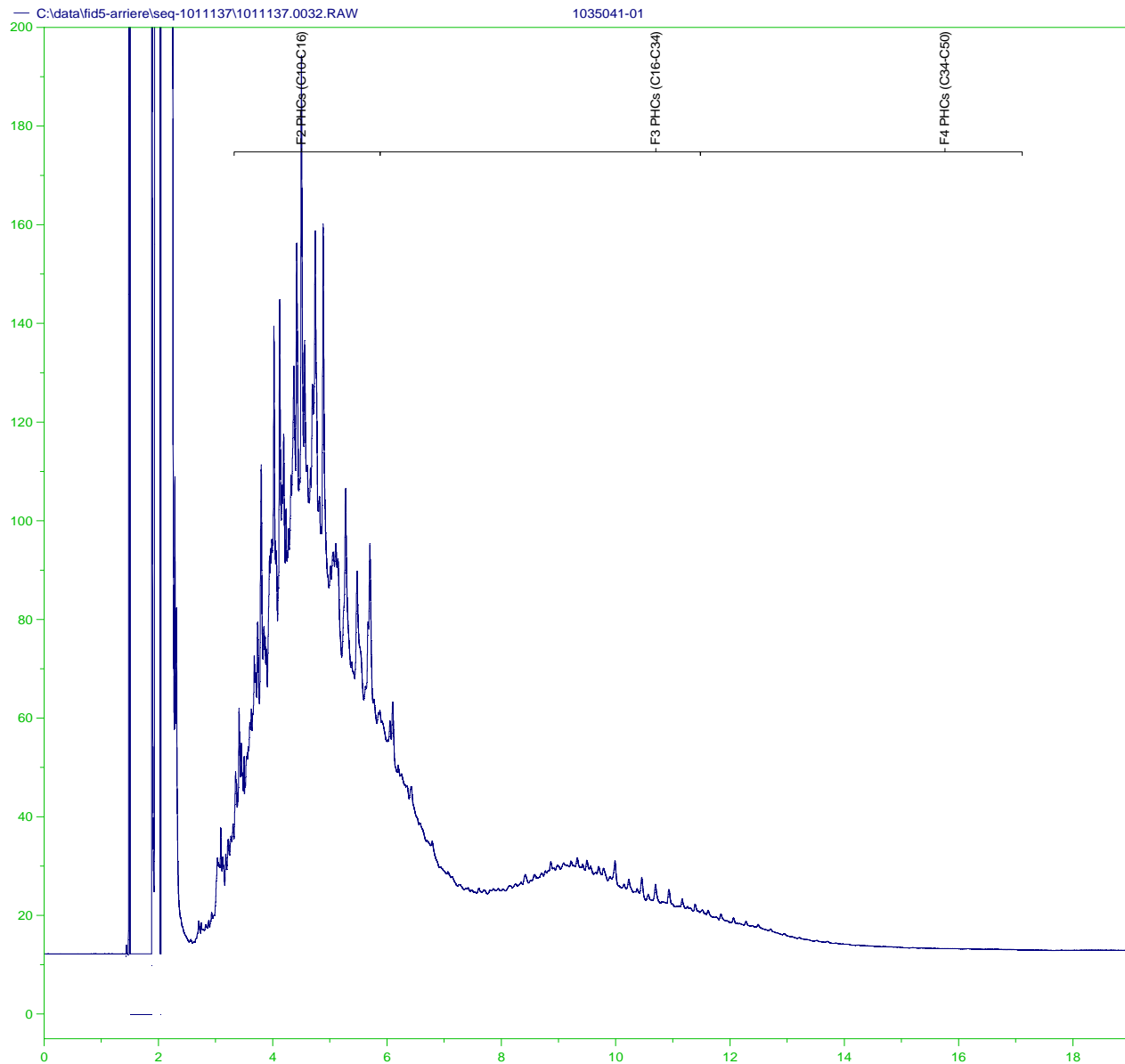
Received at Lab: SLC
Date: Aug 23/10 Time: 2:15 PM

Verified By: SLC
Date: Aug 23/10 Time: 4:52 PM

Please refer to the back page for Locations and Sample Preservation, Container and Hold Time Requirements.

First Air

WHITE - Lab Copy, PINK - Client Copy

Figure 1: GC-FID Chromatogram for the Sample 'Cell 3 Screened'; Paracel ID: 1035041-01

Characterization: The GC-FID chromatogram shows 2 distinct ranges of hydrocarbon distillates. The first range is from approximately <C10 to C24, typical of fuel oil and diesel fuel. The fingerprint pattern suggests some degree of weathering. The second product is visible in the range from approximately C24 to C42. This range is typical of lube and motor oils. Estimating the degree of weathering is not possible for products in this range.