

Certificate of Analysis

Nunatta Environmental Services Inc.

P.O. Box 267
Iqaluit, NU X0A0H0
Attn: Jim Wilson

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

Client PO:
Project: Land Farm
Custody: 61083

Report Date: 24-Sep-2010
Order Date: 20-Sep-2010

Order #: 1039084

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

Paracel ID	Client ID
1039084-01	Tank-1
1039084-02	Tank-3
1039084-03	Cell-4
1039084-04	Well #1

Approved By:



Mark Foto, M.Sc. For Dale Robertson, BSc
Laboratory Director

Certificate of Analysis

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Analysis Summary Table

Analysis	Method Reference/Description	Extraction Date	Analysis Date
BTEX	EPA 624 - P&T GC-MS	21-Sep-10	21-Sep-10
CCME PHC F1	CWS Tier 1 - P&T GC-FID	21-Sep-10	21-Sep-10

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Client ID:	Tank-1	Tank-3	Cell-4	Well #1
Sample Date:	20-Sep-10	20-Sep-10	20-Sep-10	20-Sep-10
Sample ID:	1039084-01	1039084-02	1039084-03	1039084-04
MDL/Units	Water	Water	Water	Water

Volatiles

Benzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Toluene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
m,p-Xylenes	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
o-Xylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Xylenes, total	1.0 ug/L	<1.0	<1.0	<1.0	<1.0
Toluene-d8	Surrogate	98.6%	97.3%	98.2%	98.3%

Hydrocarbons

F1 PHCs (C6-C10)	200 ug/L	<200	<200	<200	<200
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Method Quality Control: Blank

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Hydrocarbons									
F1 PHCs (C6-C10)	ND	200	ug/L						
Volatiles									
Benzene	ND	0.5	ug/L						
Ethylbenzene	ND	0.5	ug/L						
Toluene	ND	0.5	ug/L						
m,p-Xylenes	ND	0.5	ug/L						
o-Xylene	ND	0.5	ug/L						
Xylenes, total	ND	1.0	ug/L						
Surrogate: Toluene-d8	79.9		ug/L		99.8	76-118			

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Method Quality Control: Duplicate

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Hydrocarbons									
F1 PHCs (C6-C10)	ND	200	ug/L	ND				32	
Volatiles									
Benzene	ND	0.5	ug/L	ND				20	
Ethylbenzene	ND	0.5	ug/L	ND				35	
Toluene	ND	0.5	ug/L	ND				30	
m,p-Xylenes	ND	0.5	ug/L	ND				34	
o-Xylene	ND	0.5	ug/L	ND				32	
Surrogate: Toluene-d8	77.5		ug/L	ND	96.9	76-118			

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Client PO:

Project Description: Land Farm

Method Quality Control: Spike

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Hydrocarbons									
F1 PHCs (C6-C10)	1600	200	ug/L	ND	80.1	68-117			
Volatiles									
Benzene	28.6	0.5	ug/L	ND	71.5	55-141			
Ethylbenzene	40.5	0.5	ug/L	ND	101	61-139			
Toluene	31.8	0.5	ug/L	ND	79.5	54-136			
m,p-Xylenes	78.2	0.5	ug/L	ND	97.7	61-139			
o-Xylene	40.2	0.5	ug/L	ND	101	60-142			
Surrogate: Toluene-d8	68.7		ug/L		85.8	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.

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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MISSISSAUGA
6645 Kitimat Rd. Unit #27
Mississauga, ON L5N 6J3

NIAGARA FALLS
5415 Morning Glory Crt.
Niagara Falls, ON L2J 0A3

SARNIA
123 Christina St. N.
Sarnia, ON N7T 5T7

Company Name: <u>NUNATIA ENV SERVICES</u>	Project Ref: <u>LAND FARM</u>	Date Required: _____
Contact Name: <u>JIM WILSON</u>	PO# _____	Turn Around Time: <input type="checkbox"/> 1-day <input type="checkbox"/> 2-day <input type="checkbox"/> Regular
Address: <u>Box 267, TAAWIS, NU X0A 0H0</u>	Quote # _____ <input type="checkbox"/> Not Quoted	Regulatory/Guideline Requirements
Tel: <u>867-999-1888</u> Cell: _____	Preservative to be added by Paracel? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Email: <u>nunatia2northwest@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											
Parcel Order #	Matrix	Air Volume	# Containers	Date Sampled dd/mm/yy	F1 - F4	BTEX (HAPs)	CHLORINATED									Hazardous? (Y/N)
1039084																
1	TANK-1 ✓	SW	1	Sept 20/10	X	X	X									N
2	TANK-2 MISSING	SW	1												Will Send.	N
3	TANK-3 ✓	SW	1													N
4	CEH-4 ✓	SW	1													N
5	WELL #1 ✓	SW	1		X	X	X									N
6																
7																
8																
9																
10																

Comments: Only rec'd 1 Well vial for each. DB.
Sent e-mail in regards to discrepancies. LC.
* Go ahead w F1 and BTEX, they will send more bottles

Relinquished By: <u>AXEL HAVE</u>	Received at Depot:	Received at Lab: <u>LC</u>	Verified By: <u>LC</u>
Date: <u>Sept 20/10</u> Time: <u>11AM</u>	Date: _____ Time: _____	Date: <u>Sept 21/10</u> Time: <u>1:00pm</u>	Date: <u>Sept 21/10</u> Time: <u>4:11pm</u>

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

WHITE - Lab Copy, PINK - Client Copy