



ANALYTICAL TEST REPORT (Final)

Invoice To:

Peace Analytical Laboratories
10304 - 84th Avenue
Clairmont, Alberta
T0H 0W0

Performed For:

Peace Analytical Laboratories
10304 - 84th Avenue
Clairmont, Alberta
T0H 0W0

Location:

EXAMPLE REPORT

Reported To:

DMK Drilling Fluids
1000, 640 - 8th Ave. SW
Calgary, AB
T2P 1G7
none

Contact:

Date Received:

October 15, 2007

Date Analysis Completed:

October 15, 2007

File Reference:

PAI0003_001H_Final

Authorized By:

A handwritten signature in black ink that reads 'Corey Beaupre'. The signature is written in a cursive style and is positioned above a horizontal line.

Corey Beaupre, B. Sc.
Laboratory Manager

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Sample Type Identification	Liquid Pit A	Solid Pit A	Total Pit B	Soil Offsite	Soil Onsite	Detection Limit
Lab #	L-01	D-01	T-01	S-01	S-02	
pH						
pH units	7.91	8.94	12.04	6.97	7.51	N/A
Electrical Conductivity						
Electrical Conductivity dS/m	0.073	2.91	9.34	0.104	0.795	0.004
Atomic Absorption - Flame						
Calcium (Ca) mg/l	8.8	10.0	231.5	10.7	78.4	0.1
Magnesium (Mg) mg/l	2.2	2.3	0.2	2.3	31.4	0.1
Sodium (Na) mg/l	2.6	669.3	1694	4.4	24.4	0.1
Potassium (K) mg/l	0.6	7.5	58.1	0.9	2.0	0.1
Sodium Absorption Ratio (SAR)						
Sodium Absorbtion Ratio (SAR)	0.203	49.6	30.6	0.318	0.589	N/A
High Pressure Liquid Chromatography						
Chloride mg/l	1.3	107.2	418.0	3.8	1.9	1.0
Nitrate/Nitrite as N mg/l	< 0.1	1.3	13.0	< 0.1	< 0.1	0.1
Sulfate mg/l	4.9	682.2	2601	12.2	337.8	1.5
Density - Specific Gravity (Mud Balance)						
Density as Received g/cm3		1.600	1.105			N/A
Density - Wet Bulk & Specific Gravity						
Density at Saturation g/cm3		1.521		1.245	1.497	0.900
Oil Content - Dean & Stark						
Dry weight %			0.70			0.05
Wet weight %			0.10			N/A
Water %			85.40			N/A
Sediment %			14.50			N/A
Microtox Bioassay						
EC50(15) original %	80.31	66.37	29.28			1
EC50(15) colour corrected %		> 100	66.45			1
EC50(15) charcoal %			91.56			1
Moisture Content						
% Moisture			85.07		12.84	N/A
Particle Size Analysis - Hydrometer						
Sand %				43.6		0.1
Silt %				25.0		0.1
Clay %				31.4		0.1

Comments, Opinions or Interpretation of Results

ND - Not determined for analytical method used.



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Sample Type Identification Lab #	Liquid Pit A L-01	Solid Pit A D-01	Total Pit B T-01	Soil Offsite S-01	Soil Onsite S-02	Detection Limit
Particle Size Analysis - Hydrometer (Continued..) Texture Class Metals in Soil (Acid Digestion) Barium (Ba) mg/kg			11505.7	Clay Loam		N/A

Comments, Opinions or Interpretation of Results

ND - Not determined for analytical method used.





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Sample Type Identification	Mix					Detection Limit
Lab #	3:1 S-2 with T-1 M-01					
pH						
pH units	7.81					N/A
Electrical Conductivity						
Electrical Conductivity dS/m	2.52					0.004
Atomic Absorption - Flame						
Calcium (Ca) mg/l	206.1					0.1
Magnesium (Mg) mg/l	70.2					0.1
Sodium (Na) mg/l	287.3					0.1
Potassium (K) mg/l	11.0					0.1
Sodium Absorption Ratio (SAR)						
Sodium Absorbtion Ratio (SAR)	4.41					N/A
High Pressure Liquid Chromatography						
Chloride mg/l	108.2					1.0
Nitrate/Nitrite as N mg/l	< 0.1					0.1
Sulfate mg/l	1116					1.5
Density - Wet Bulk & Specific Gravity						
Density at Saturation g/cm3	1.581					0.900

Comments, Opinions or Interpretation of Results

ND - Not determined for analytical method used.



PEACE ANALYTICAL LABORATORIES
REFERENCE MATERIAL

File Reference: PAI0003_001H_Final

Sample Condition Upon Receipt

- PAI0003L-01 : Good
- PAI0003D-01 : Good
- PAI0003T-01 : Good
- PAI0003S-01 : Good
- PAI0003S-02 : Good
- PAI0003M-01 : Prepared in Laboratory

Methods Performed

Test Description

Analytical Method Reference

pH	APHA 4500 H+ - pH by pH Probe
Electrical Conductivity	APHA 2510B - Laboratory Method
Atomic Absorption - Flame	APHA 3111 - Atomic Absorption
Sodium Absorption Ratio (SAR)	McKeague 3.26 - Sodium Absorption Ratio by Calculation
High Pressure Liquid Chromatography	APHA 4110B - Ion Chromatography with Eluent Conductivity
Density - Specific Gravity (Mud Balance)	Fann Mud Balance Instruction Sheet
Density - Wet Bulk & Specific Gravity	McKeague 2.25 - Particle Density
Oil Content - Dean & Stark	ASTM D95-83 - Water in Petroleum Products + Bituminous Materials by Distillation
Microtox Bioassay	APHA 8050 - Bacterial Bioluminescence
Moisture Content	McKeague 2.413 - Water Content, Volume Basis
Particle Size Analysis - Hydrometer	McKeague 2.12 - Particles < 2mm - Hydrometer Method
Metals in Soil (Acid Digestion)	EPA 3050 (Acid Digestion) & APHA 3120 (Metals by ICP)