

Attachment 15

Intake Sediment Analysis Report



CERTIFICATE OF ANALYSIS

PROJECT NARRATIVE

Matt Richardson
 EA Engineering, Science, and Technology
 2530 Post Road
 Warwick, RI 02886

RE: Main St
ESS Laboratory Work Order Number: 0903141

This signed Certificate of Analysis is our approved release of your analytical results. These results are only representative of sample aliquots received at the laboratory. ESS Laboratory expects its clients to follow all regulatory sampling guidelines. Beginning with this Project Narrative, the entire report has been paginated. The ESS Laboratory Certifications sheet is the final report page. This report should not be copied except in full without the approval of the laboratory. Samples will be disposed of thirty days after the final report has been delivered. If you have any questions or concerns, please feel free to call our Customer Service Department.

Laurel Stoddard
 Laboratory Director



Analytical Summary

The project as described above has been analyzed in accordance with the ESS Quality Assurance Plan. This plan utilizes the following methodologies: US EPA SW-846, US EPA Methods for Chemical Analysis of Water and Wastes per 40 CFR Part 136, APHA Standard Methods for the Examination of Water and Wastewater, American Society for Testing and Materials (ASTM), and other recognized methodologies. The analyses with these noted observations are in conformance to the Quality Assurance Plan. In chromatographic analysis, manual integration may be used instead of automated integration because it produces more accurate results. All ICP Metals were analyzed using the established linear dynamic range to determine acceptable analytical results.

ESS Laboratory certifies that the test results meet the requirements of NELAC, except where noted within this project narrative.

Sample Receipt

The following sample(s) were received on March 12, 2009 for the analyses specified on the enclosed Chain of Custody Record.

Laboratory ID
 0903141-01

Matrix
 Soil

Client SampleID
 Main - Power



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: EA Engineering, Science, and Technology
Client Project ID: Main St

ESS Laboratory Work Order: 0903141

PROJECT NARRATIVE

8270C Semi-Volatile Organic Compounds

BSC0086-CCV1 **Calibration required quadratic regression.**

4-Nitroaniline

BSC0104-CCV1 **Calibration required quadratic regression.**

4-Nitroaniline

No other observations noted.

End of Project Narrative.



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Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: EA Engineering, Science, and Technology
Client Project ID: Main St
Client Sample ID: Main - Power
Date Sampled: 03/12/09 11:00
Percent Solids: 76

ESS Laboratory Work Order: 0903141
ESS Laboratory Sample ID: 0903141-01
Sample Matrix: Soil

TCLP Date: 3/16/09

1311/6000/7000 TCLP Metals

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>Method</u>	<u>TCLP Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>
Arsenic	ND	mg/L	0.050	1311/6010B		1	SVD	03/17/09	50	50
Barium	0.180	mg/L	0.050	1311/6010B		1	SVD	03/17/09	50	50
Cadmium	0.0052	mg/L	0.0050	1311/6010B		1	SVD	03/17/09	50	50
Chromium	ND	mg/L	0.020	1311/6010B		1	SVD	03/17/09	50	50
Lead	0.086	mg/L	0.020	1311/6010B		1	SVD	03/17/09	50	50
Mercury	ND	mg/L	0.00050	1311/7470A		1	JP	03/18/09	20	40
Selenium	ND	mg/L	0.050	1311/6010B		1	SVD	03/17/09	50	50
Silver	ND	mg/L	0.010	1311/6010B		1	SVD	03/17/09	50	50



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Percent Solids: 76

ESS Laboratory Work Order: 0903141
ESS Laboratory Sample ID: 0903141-01
Sample Matrix: Soil

3050B/6000/7000 Total Metals

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>
Arsenic	ND	mg/kg dry	3.5	6010B		1	SVD	03/13/09	1.86	100
Barium	15.0	mg/kg dry	3.5	6010B		1	SVD	03/13/09	1.86	100
Cadmium	ND	mg/kg dry	0.71	6010B		1	SVD	03/13/09	1.86	100
Chromium	6.3	mg/kg dry	1.4	6010B		1	SVD	03/13/09	1.86	100
Lead	52.9	mg/kg dry	7.1	6010B		1	SVD	03/13/09	1.86	100
Mercury	0.044	mg/kg dry	0.036	7471A		1	JP	03/13/09	0.73	40
Selenium	ND	mg/kg dry	7.1	6010B		1	SVD	03/13/09	1.86	100
Silver	ND	mg/kg dry	0.71	6010B		1	SVD	03/13/09	1.86	100



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Client Name: EA Engineering, Science, and Technology
 Client Project ID: Main St
 Client Sample ID: Main - Power
 Date Sampled: 03/12/09 11:00
 Percent Solids: 76
 Initial Volume: 20.5
 Final Volume: 10
 Extraction Method: 3540

ESS Laboratory Work Order: 0903141
 ESS Laboratory Sample ID: 0903141-01
 Sample Matrix: Soil
 Analyst: SEP
 Prepared: 03/14/09

8082 Polychlorinated Biphenyls (PCB)

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>
Aroclor 1016	ND	mg/kg dry	0.0642		1	03/16/09
Aroclor 1221	ND	mg/kg dry	0.0642		1	03/16/09
Aroclor 1232	ND	mg/kg dry	0.0642		1	03/16/09
Aroclor 1242	ND	mg/kg dry	0.0642		1	03/16/09
Aroclor 1248	ND	mg/kg dry	0.0642		1	03/16/09
Aroclor 1254	0.211	mg/kg dry	0.0642		1	03/16/09
Aroclor 1260	0.226	mg/kg dry	0.0642		1	03/16/09
Aroclor 1262	ND	mg/kg dry	0.0642		1	03/16/09
Aroclor 1268	ND	mg/kg dry	0.0642		1	03/16/09

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: Decachlorobiphenyl	96 %		30-150
Surrogate: Decachlorobiphenyl [2C]	96 %		30-150
Surrogate: Tetrachloro-m-xylene	88 %		30-150
Surrogate: Tetrachloro-m-xylene [2C]	101 %		30-150



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Client Name: EA Engineering, Science, and Technology
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 Client Sample ID: Main - Power
 Date Sampled: 03/12/09 11:00
 Percent Solids: 76
 Initial Volume: 20.4
 Final Volume: 1
 Extraction Method: 3546

ESS Laboratory Work Order: 0903141
 ESS Laboratory Sample ID: 0903141-01
 Sample Matrix: Soil
 Analyst: VSC
 Prepared: 03/12/09

8100M Total Petroleum Hydrocarbons

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>
Total Petroleum Hydrocarbons	91.1	mg/kg dry	48.4		1	03/13/09

	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>Surrogate: O-Terphenyl</i>	95 %		40-140



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 Date Sampled: 03/12/09 11:00
 Percent Solids: 76
 Initial Volume: 15
 Final Volume: 0.5
 Extraction Method: 3546

ESS Laboratory Work Order: 0903141
 ESS Laboratory Sample ID: 0903141-01
 Sample Matrix: Soil
 Analyst: VSC
 Prepared: 03/12/09

8270C Semi-Volatile Organic Compounds

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>
1,1-Biphenyl	ND	mg/kg dry	0.438		1	03/13/09
1,2,4-Trichlorobenzene	ND	mg/kg dry	0.438		1	03/13/09
1,2-Dichlorobenzene	ND	mg/kg dry	0.438		1	03/13/09
1,3-Dichlorobenzene	ND	mg/kg dry	0.438		1	03/13/09
1,4-Dichlorobenzene	ND	mg/kg dry	0.438		1	03/13/09
2,3,4,6-Tetrachlorophenol	ND	mg/kg dry	2.20		1	03/13/09
2,4,5-Trichlorophenol	ND	mg/kg dry	0.438		1	03/13/09
2,4,6-Trichlorophenol	ND	mg/kg dry	0.438		1	03/13/09
2,4-Dichlorophenol	ND	mg/kg dry	0.438		1	03/13/09
2,4-Dimethylphenol	ND	mg/kg dry	0.438		1	03/13/09
2,4-Dinitrophenol	ND	mg/kg dry	2.20		1	03/13/09
2,4-Dinitrotoluene	ND	mg/kg dry	0.438		1	03/13/09
2,6-Dinitrotoluene	ND	mg/kg dry	0.438		1	03/13/09
2-Chloronaphthalene	ND	mg/kg dry	0.438		1	03/13/09
2-Chlorophenol	ND	mg/kg dry	0.438		1	03/13/09
2-Methylnaphthalene	ND	mg/kg dry	0.438		1	03/13/09
2-Methylphenol	ND	mg/kg dry	0.438		1	03/13/09
2-Nitroaniline	ND	mg/kg dry	0.438		1	03/13/09
2-Nitrophenol	ND	mg/kg dry	0.438		1	03/13/09
3,3'-Dichlorobenzidine	ND	mg/kg dry	0.878		1	03/13/09
3+4-Methylphenol	ND	mg/kg dry	0.878		1	03/13/09
3-Nitroaniline	ND	mg/kg dry	0.438		1	03/13/09
4,6-Dinitro-2-Methylphenol	ND	mg/kg dry	2.20		1	03/13/09
4-Bromophenyl-phenylether	ND	mg/kg dry	0.438		1	03/13/09
4-Chloro-3-Methylphenol	ND	mg/kg dry	0.438		1	03/13/09
4-Chloroaniline	ND	mg/kg dry	0.878		1	03/13/09
4-Chloro-phenyl-phenyl ether	ND	mg/kg dry	0.438		1	03/13/09
4-Nitroaniline	ND	mg/kg dry	0.438		1	03/13/09
4-Nitrophenol	ND	mg/kg dry	2.20		1	03/13/09
Acenaphthene	ND	mg/kg dry	0.438		1	03/13/09
Acenaphthylene	ND	mg/kg dry	0.438		1	03/13/09
Acetophenone	ND	mg/kg dry	0.878		1	03/13/09
Aniline	ND	mg/kg dry	0.878		1	03/13/09
Anthracene	ND	mg/kg dry	0.438		1	03/13/09
Azobenzene	ND	mg/kg dry	0.438		1	03/13/09



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 Percent Solids: 76
 Initial Volume: 15
 Final Volume: 0.5
 Extraction Method: 3546

ESS Laboratory Work Order: 0903141
 ESS Laboratory Sample ID: 0903141-01
 Sample Matrix: Soil
 Analyst: VSC
 Prepared: 03/12/09

8270C Semi-Volatile Organic Compounds

Benzo(a)anthracene	0.902	mg/kg dry	0.438	1	03/13/09
Benzo(a)pyrene	0.653	mg/kg dry	0.220	1	03/13/09
Benzo(b)fluoranthene	0.562	mg/kg dry	0.438	1	03/13/09
Benzo(g,h,i)perylene	ND	mg/kg dry	0.438	1	03/13/09
Benzo(k)fluoranthene	0.591	mg/kg dry	0.438	1	03/13/09
Benzoic Acid	ND	mg/kg dry	2.20	1	03/13/09
Benzyl Alcohol	ND	mg/kg dry	0.438	1	03/13/09
bis(2-Chloroethoxy)methane	ND	mg/kg dry	0.438	1	03/13/09
bis(2-Chloroethyl)ether	ND	mg/kg dry	0.438	1	03/13/09
bis(2-chloroisopropyl)Ether	ND	mg/kg dry	0.438	1	03/13/09
bis(2-Ethylhexyl)phthalate	7.52	mg/kg dry	0.438	1	03/13/09
Butylbenzylphthalate	ND	mg/kg dry	0.438	1	03/13/09
Carbazole	ND	mg/kg dry	0.438	1	03/13/09
Chrysene	0.852	mg/kg dry	0.220	1	03/13/09
Dibenzo(a,h)Anthracene	0.403	mg/kg dry	0.220	1	03/13/09
Dibenzofuran	ND	mg/kg dry	0.438	1	03/13/09
Diethylphthalate	ND	mg/kg dry	0.438	1	03/13/09
Dimethylphthalate	ND	mg/kg dry	0.438	1	03/13/09
Di-n-butylphthalate	ND	mg/kg dry	0.438	1	03/13/09
Di-n-octylphthalate	ND	mg/kg dry	0.438	1	03/13/09
Fluoranthene	1.72	mg/kg dry	0.438	1	03/13/09
Fluorene	ND	mg/kg dry	0.438	1	03/13/09
Hexachlorobenzene	ND	mg/kg dry	0.220	1	03/13/09
Hexachlorobutadiene	ND	mg/kg dry	0.438	1	03/13/09
Hexachlorocyclopentadiene	ND	mg/kg dry	2.20	1	03/13/09
Hexachloroethane	ND	mg/kg dry	0.438	1	03/13/09
Indeno(1,2,3-cd)Pyrene	ND	mg/kg dry	0.438	1	03/13/09
Isophorone	ND	mg/kg dry	0.438	1	03/13/09
Naphthalene	ND	mg/kg dry	0.438	1	03/13/09
Nitrobenzene	ND	mg/kg dry	0.438	1	03/13/09
N-Nitrosodimethylamine	ND	mg/kg dry	0.438	1	03/13/09
N-Nitroso-Di-n-Propylamine	ND	mg/kg dry	0.438	1	03/13/09
N-nitrosodiphenylamine	ND	mg/kg dry	0.438	1	03/13/09
Pentachlorophenol	ND	mg/kg dry	2.20	1	03/13/09
Phenanthrene	0.568	mg/kg dry	0.438	1	03/13/09
Phenol	ND	mg/kg dry	0.438	1	03/13/09



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 Percent Solids: 76
 Initial Volume: 15
 Final Volume: 0.5
 Extraction Method: 3546

ESS Laboratory Work Order: 0903141
 ESS Laboratory Sample ID: 0903141-01
 Sample Matrix: Soil
 Analyst: VSC
 Prepared: 03/12/09

8270C Semi-Volatile Organic Compounds

Pyrene	1.02	mg/kg dry	0.438	1	03/13/09
Pyridine	ND	mg/kg dry	2.20	1	03/13/09

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichlorobenzene-d4	55 %		30-130
Surrogate: 2,4,6-Tribromophenol	80 %		30-130
Surrogate: 2-Chlorophenol-d4	58 %		30-130
Surrogate: 2-Fluorobiphenyl	61 %		30-130
Surrogate: 2-Fluorophenol	58 %		30-130
Surrogate: Nitrobenzene-d5	60 %		30-130
Surrogate: Phenol-d6	59 %		30-130
Surrogate: p-Terphenyl-d14	64 %		30-130



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Date Sampled: 03/12/09 11:00

ESS Laboratory Work Order: 0903141
ESS Laboratory Sample ID: 0903141-01
Sample Matrix: Soil

Classical Chemistry

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>
Grain Size	See Attached							

THIELSCH ENGINEERING, INC

Sieve Analysis Test Report

Client: ESS Lab
 Project: Main Power
 ESS Sample # 0903141-01
 Client I.D.: 0903141-01

Date: 3/16/2009
 T.E.I. Project # 74-09-0002-1
 ESS Project # 0903141
 TEI Report # 0903141-01
 Lab Tech: JW

Total Moisture Content by Drying (D2216)	
Wet Mass (W):	418.5
Original Dry Mass (D):	329.0
Moisture Loss (W - D):	89.5
% Moisture (100 x (W - D) / D):	27.2

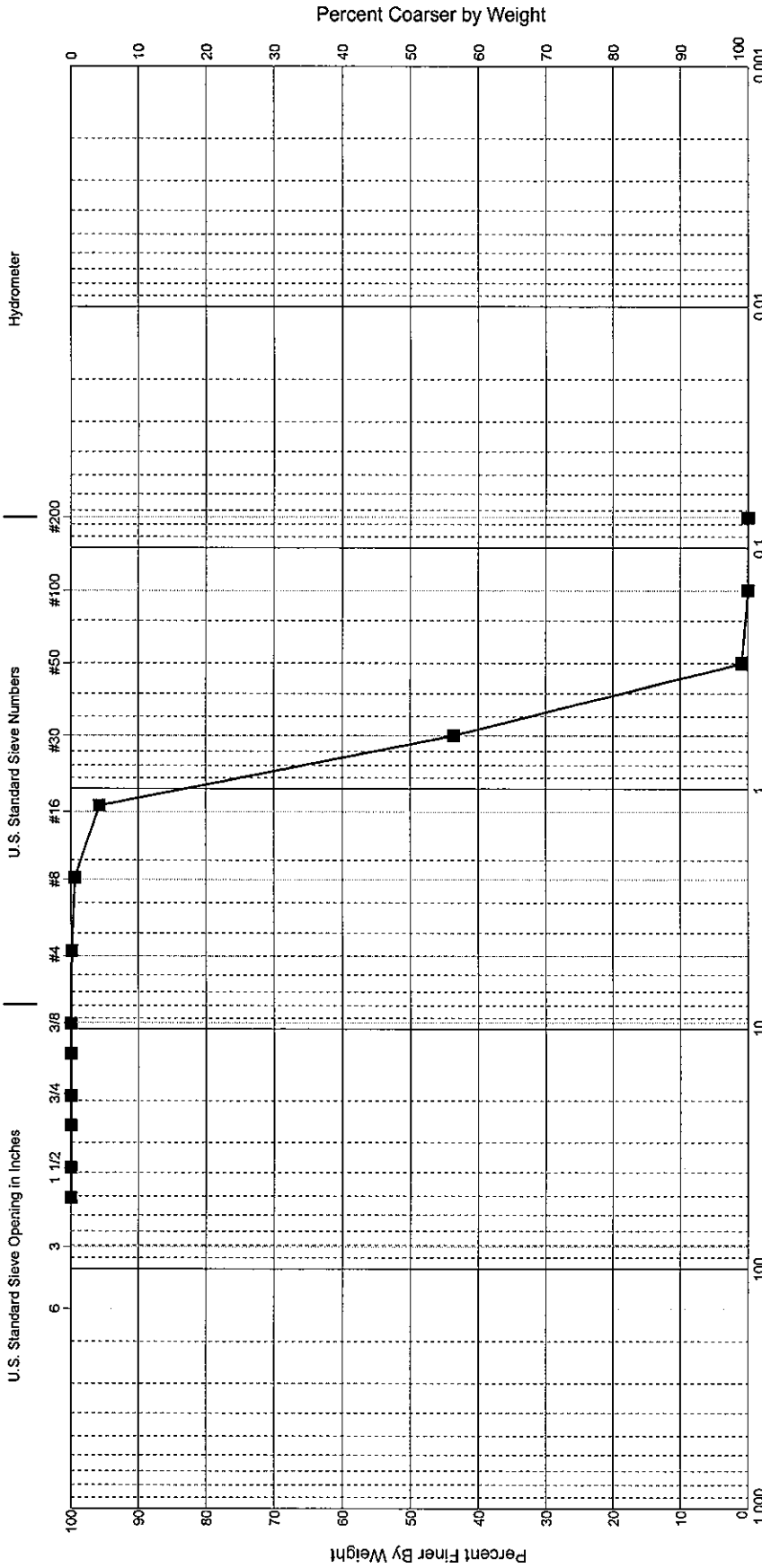
Materials Finer than 75 µm Sieve by Washing (C117)	
Dry Mass after wash (Dw):	
Mass of fines lost by wash (D - Dw):	
% -75 µm Sieve (100 x (D - Dw)/D):	

Sieve Analysis of Fine and Coarse Aggregates (C136 /C117)								
Sieve	Mass per Sieve		% Retained per Sieve		% Passing		Specification %	
	Unwashed	Washed	Unwashed	Washed	Unwashed	Washed	PR	PP
2"	0.0		0.0		100.0			
1-1/2"	0.0		0.0		100.0			
1"	0.0		0.0		100.0			
3/4"	0.0		0.0		100.0			
1/2"	0.0		0.0		100.0			
3/8"	0.0		0.0		100.0			
#4	0.5		0.2		99.8			
#8	2.0		0.6		99.4			
#16	14.0		4.3		95.7			
#30	185.5		56.4		43.6			
#50	326.0		99.1		0.9			
#100	329.0		100.0		0.0			
#200	329.0		100.0		0.0			
Pan	329.0		100.0		Calculate Fineness Modulus? No			
Sub Total	329.0							
Loss on Wash (D - Dw)								
Total	329.0							

Comments: **USCS Classification: (SP) Poorly graded sand**

Verify James Heywood	Reviewed by: Jim McManus
Certification #: NICET # 87010	QA/QC
Date: 3/16/2009	Date: 3/16/2009
Results Within Specification Limits: <input type="checkbox"/>	Results Outside Specification Limits: <input type="checkbox"/>

GRAIN-SIZE DISTRIBUTION TEST REPORT



Grain Size (mm)				Unified Soil Classification System												
Soil Counter	Borehole ID	Sample ID	Depth Upper	Depth Lower	Texture	Soil Description	PI									
732296572	0903141-01	0903141-01	ft	ft	SP	0903141 (SP) Poorly graded sand										
<table border="0" style="width: 100%;"> <tr> <td style="width: 33%;">% Coarse</td> <td style="width: 33%;">99.8%</td> <td style="width: 33%;">% Sand</td> </tr> <tr> <td>% Silt</td> <td>0.0%</td> <td>% Clay</td> </tr> <tr> <td>% Clay</td> <td>0.0%</td> <td></td> </tr> </table>				% Coarse	99.8%	% Sand	% Silt	0.0%	% Clay	% Clay	0.0%					
% Coarse	99.8%	% Sand														
% Silt	0.0%	% Clay														
% Clay	0.0%															

NP=No plastic limit

<p>Company: Thielsch Engineering Address: 195 Frances Ave. Cranston Cranston RI 02910 Country: United States Telephone: 401-467-6454 Fax: 401-467-2398</p>	<p>Project No.: 0903141 Borehole: 0903141-01 Project Name: 0903141a Location: Cranston Soil Counter: 732296572 Sample ID: 0903141-01 Depth: ft</p>
<p>USCS GRAIN-SIZE DISTRIBUTION Tested By: John Wheeler Test Date: 16-Mar-09</p>	



ESS Laboratory

Division of Thielsch Engineering, Inc.

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 Client Project ID: Main St

ESS Laboratory Work Order: 0903141

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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1311/6000/7000 TCLP Metals

Batch BC91702 - 3005A

Blank

Arsenic	ND	0.025	mg/L							
Barium	ND	0.025	mg/L							
Cadmium	ND	0.0025	mg/L							
Chromium	ND	0.010	mg/L							
Lead	ND	0.010	mg/L							
Selenium	ND	0.025	mg/L							
Silver	ND	0.005	mg/L							

Blank

Arsenic	ND	0.025	mg/L							
Barium	ND	0.025	mg/L							
Cadmium	ND	0.0025	mg/L							
Chromium	ND	0.010	mg/L							
Lead	ND	0.010	mg/L							
Selenium	ND	0.025	mg/L							
Silver	ND	0.005	mg/L							

LCS

Arsenic	0.243	0.025	mg/L	0.2500		97	80-120			
Barium	0.237	0.025	mg/L	0.2500		95	80-120			
Cadmium	0.123	0.0025	mg/L	0.1250		98	80-120			
Chromium	0.244	0.010	mg/L	0.2500		98	80-120			
Lead	0.243	0.010	mg/L	0.2500		97	80-120			
Selenium	0.520	0.025	mg/L	0.5000		104	80-120			
Silver	0.132	0.005	mg/L	0.1250		106	80-120			

LCS Dup

Arsenic	0.246	0.025	mg/L	0.2500		98	80-120	1	20	
Barium	0.236	0.025	mg/L	0.2500		95	80-120	0.2	20	
Cadmium	0.118	0.0025	mg/L	0.1250		95	80-120	4	20	
Chromium	0.242	0.010	mg/L	0.2500		97	80-120	0.8	20	
Lead	0.242	0.010	mg/L	0.2500		97	80-120	0.5	20	
Selenium	0.527	0.025	mg/L	0.5000		105	80-120	1	20	
Silver	0.132	0.005	mg/L	0.1250		106	80-120	0.02	20	

Duplicate

Source: 0903141-01

Arsenic	ND	0.050	mg/L		0.006			200	20	
Barium	0.174	0.050	mg/L		0.180			3	20	
Cadmium	0.0051	0.0050	mg/L		0.0052			2	20	
Chromium	ND	0.020	mg/L		0.003			200	20	
Lead	0.082	0.020	mg/L		0.086			4	20	
Selenium	0.019	0.050	mg/L		0.024			24	20	
Silver	ND	0.010	mg/L		ND				20	

Matrix Spike

Source: 0903141-01

Arsenic	0.491	0.050	mg/L	0.5000	0.006	97	75-125			
Barium	0.651	0.050	mg/L	0.5000	0.180	94	75-125			
Cadmium	0.243	0.0050	mg/L	0.2500	0.0052	95	75-125			
Chromium	0.494	0.020	mg/L	0.5000	0.003	98	75-125			



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 Client Project ID: Main St

ESS Laboratory Work Order: 0903141

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
1311/6000/7000 TCLP Metals										
Batch BC91702 - 3005A										
Lead	0.574	0.020	mg/L	0.5000	0.086	98	75-125			
Selenium	1.03	0.050	mg/L	1.000	0.024	100	75-125			
Silver	0.260	0.010	mg/L	0.2500	ND	104	75-125			
Batch BC91704 - 245.1/7470A										
Blank										
Mercury	ND	0.00050	mg/L							
LCS										
Mercury	0.00634	0.00050	mg/L	0.006000		106	80-120			
LCS Dup										
Mercury	0.00640	0.00050	mg/L	0.006000		107	80-120	1	20	
3050B/6000/7000 Total Metals										
Batch BC91216 - 7471A										
Blank										
Mercury	ND	0.033	mg/kg wet							
LCS										
Mercury	0.207	0.033	mg/kg wet	0.2000		103	80-120			
LCS Dup										
Mercury	0.207	0.033	mg/kg wet	0.2000		104	80-120	0.3	20	
Reference										
Mercury	7.82	0.660	mg/kg wet	8.480		92	66-132			
Batch BC91316 - 3050B										
Blank										
Arsenic	ND	3.3	mg/kg wet							
Barium	ND	3.3	mg/kg wet							
Cadmium	ND	0.67	mg/kg wet							
Chromium	ND	1.3	mg/kg wet							
Lead	ND	6.7	mg/kg wet							
Selenium	ND	6.7	mg/kg wet							
Silver	ND	0.67	mg/kg wet							
LCS										
Arsenic	32.4	3.3	mg/kg wet	33.33		97	80-120			
Barium	33.2	3.3	mg/kg wet	33.33		100	80-120			
Cadmium	15.8	0.67	mg/kg wet	16.67		95	80-120			
Chromium	34.2	1.3	mg/kg wet	33.33		103	80-120			
Lead	33.9	6.7	mg/kg wet	33.33		102	80-120			
Selenium	62.5	6.7	mg/kg wet	66.67		94	80-120			
Silver	16.6	0.67	mg/kg wet	16.67		99	80-120			
LCS Dup										
Arsenic	32.9	3.3	mg/kg wet	33.33		99	80-120	2	20	
Barium	33.9	3.3	mg/kg wet	33.33		102	80-120	2	20	
Cadmium	16.0	0.67	mg/kg wet	16.67		96	80-120	1	20	
Chromium	34.8	1.3	mg/kg wet	33.33		104	80-120	2	20	



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3050B/6000/7000 Total Metals

Batch BC91316 - 3050B

Lead	34.3	6.7	mg/kg wet	33.33		103	80-120	1	20	
Selenium	63.4	6.7	mg/kg wet	66.67		95	80-120	1	20	
Silver	16.8	0.67	mg/kg wet	16.67		101	80-120	2	20	

Reference

Arsenic	254	5.0	mg/kg wet	280.0		91	81-119			
Barium	482	5.0	mg/kg wet	520.0		93	83-117			
Cadmium	158	1.00	mg/kg wet	182.0		87	82-118			
Chromium	129	2.0	mg/kg wet	142.0		91	81-120			
Lead	69.7	10.0	mg/kg wet	72.20		97	82-118			
Selenium	148	10.0	mg/kg wet	165.0		90	78-123			
Silver	123	1.00	mg/kg wet	126.0		97	66-134			

Reference

Lead	5010	500	mg/kg wet	5000		100	80-120			
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8082 Polychlorinated Biphenyls (PCB)

Batch BC91402 - 3540

Blank

Aroclor 1016	ND	0.0500	mg/kg wet							
Aroclor 1221	ND	0.0500	mg/kg wet							
Aroclor 1232	ND	0.0500	mg/kg wet							
Aroclor 1242	ND	0.0500	mg/kg wet							
Aroclor 1248	ND	0.0500	mg/kg wet							
Aroclor 1254	ND	0.0500	mg/kg wet							
Aroclor 1260	ND	0.0500	mg/kg wet							
Aroclor 1262	ND	0.0500	mg/kg wet							
Aroclor 1268	ND	0.0500	mg/kg wet							

Surrogate: Decachlorobiphenyl	0.0253		mg/kg wet	0.02500		101	30-150			
Surrogate: Decachlorobiphenyl [2C]	0.0248		mg/kg wet	0.02500		99	30-150			
Surrogate: Tetrachloro-m-xylene	0.0251		mg/kg wet	0.02500		100	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	0.0282		mg/kg wet	0.02500		113	30-150			

LCS

Aroclor 1016	0.526	0.0500	mg/kg wet	0.5000		105	40-140			
Aroclor 1260	0.442	0.0500	mg/kg wet	0.5000		88	40-140			

Surrogate: Decachlorobiphenyl	0.0259		mg/kg wet	0.02500		104	30-150			
Surrogate: Decachlorobiphenyl [2C]	0.0261		mg/kg wet	0.02500		104	30-150			
Surrogate: Tetrachloro-m-xylene	0.0292		mg/kg wet	0.02500		117	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	0.0304		mg/kg wet	0.02500		122	30-150			

LCS Dup

Aroclor 1016	0.499	0.0500	mg/kg wet	0.5000		100	40-140	5	50	
Aroclor 1260	0.463	0.0500	mg/kg wet	0.5000		93	40-140	5	50	

Surrogate: Decachlorobiphenyl	0.0264		mg/kg wet	0.02500		106	30-150			
Surrogate: Decachlorobiphenyl [2C]	0.0274		mg/kg wet	0.02500		110	30-150			



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8082 Polychlorinated Biphenyls (PCB)

Batch BC91402 - 3540

Surrogate: Tetrachloro-m-xylene	0.0257		mg/kg wet	0.02500		103	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	0.0284		mg/kg wet	0.02500		114	30-150			

8100M Total Petroleum Hydrocarbons

Batch BC91208 - 3546

Blank

Decane (C10)	ND	0.25	mg/kg wet							
Docosane (C22)	ND	0.25	mg/kg wet							
Dodecane (C12)	ND	0.25	mg/kg wet							
Eicosane (C20)	ND	0.25	mg/kg wet							
Hexacosane (C26)	ND	0.25	mg/kg wet							
Hexadecane (C16)	ND	0.25	mg/kg wet							
Nonadecane (C19)	ND	0.25	mg/kg wet							
Nonane (C9)	ND	0.25	mg/kg wet							
Octacosane (C28)	ND	0.25	mg/kg wet							
Octadecane (C18)	ND	0.25	mg/kg wet							
Tetracosane (C24)	ND	0.25	mg/kg wet							
Tetradecane (C14)	ND	0.25	mg/kg wet							
Total Petroleum Hydrocarbons	ND	37.5	mg/kg wet							
Triacotane (C30)	ND	0.25	mg/kg wet							

Surrogate: O-Terphenyl	4.48		mg/kg wet	5.000		90	40-140			
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LCS

Decane (C10)	1.91	0.25	mg/kg wet	2.500		76	40-140			
Docosane (C22)	2.20	0.25	mg/kg wet	2.500		88	40-140			
Dodecane (C12)	2.22	0.25	mg/kg wet	2.500		89	40-140			
Eicosane (C20)	2.21	0.25	mg/kg wet	2.500		88	40-140			
Hexacosane (C26)	2.08	0.25	mg/kg wet	2.500		83	40-140			
Hexadecane (C16)	2.19	0.25	mg/kg wet	2.500		88	40-140			
Nonadecane (C19)	2.29	0.25	mg/kg wet	2.500		91	40-140			
Nonane (C9)	1.70	0.25	mg/kg wet	2.500		68	30-140			
Octacosane (C28)	1.96	0.25	mg/kg wet	2.500		78	40-140			
Octadecane (C18)	2.22	0.25	mg/kg wet	2.500		89	40-140			
Tetracosane (C24)	2.20	0.25	mg/kg wet	2.500		88	40-140			
Tetradecane (C14)	2.17	0.25	mg/kg wet	2.500		87	40-140			
Triacotane (C30)	1.74	0.25	mg/kg wet	2.500		69	40-140			

Surrogate: O-Terphenyl	4.63		mg/kg wet	5.000		93	40-140			
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LCS Dup

Decane (C10)	1.83	0.25	mg/kg wet	2.500		73	40-140	4	50	
Docosane (C22)	2.08	0.25	mg/kg wet	2.500		83	40-140	6	50	
Dodecane (C12)	2.09	0.25	mg/kg wet	2.500		84	40-140	6	50	
Eicosane (C20)	2.09	0.25	mg/kg wet	2.500		84	40-140	5	50	
Hexacosane (C26)	1.96	0.25	mg/kg wet	2.500		78	40-140	6	50	
Hexadecane (C16)	2.07	0.25	mg/kg wet	2.500		83	40-140	6	50	



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8100M Total Petroleum Hydrocarbons										
Batch BC91208 - 3546										
Nonadecane (C19)	2.15	0.25	mg/kg wet	2.500		86	40-140	6	50	
Nonane (C9)	1.69	0.25	mg/kg wet	2.500		68	30-140	0.6	50	
Octacosane (C28)	1.84	0.25	mg/kg wet	2.500		74	40-140	6	50	
Octadecane (C18)	2.09	0.25	mg/kg wet	2.500		84	40-140	6	50	
Tetracosane (C24)	2.07	0.25	mg/kg wet	2.500		83	40-140	6	50	
Tetradecane (C14)	2.05	0.25	mg/kg wet	2.500		82	40-140	6	50	
Triacontane (C30)	1.65	0.25	mg/kg wet	2.500		66	40-140	5	50	
<i>Surrogate: O-Terphenyl</i>	4.32		mg/kg wet	5.000		86	40-140			

8270C Semi-Volatile Organic Compounds

Batch BC91209 - 3546

Blank										
1,1-Biphenyl	ND	0.333	mg/kg wet							
1,2,4-Trichlorobenzene	ND	0.333	mg/kg wet							
1,2-Dichlorobenzene	ND	0.333	mg/kg wet							
1,3-Dichlorobenzene	ND	0.333	mg/kg wet							
1,4-Dichlorobenzene	ND	0.333	mg/kg wet							
2,3,4,6-Tetrachlorophenol	ND	1.67	mg/kg wet							
2,4,5-Trichlorophenol	ND	0.333	mg/kg wet							
2,4,6-Trichlorophenol	ND	0.333	mg/kg wet							
2,4-Dichlorophenol	ND	0.333	mg/kg wet							
2,4-Dimethylphenol	ND	0.333	mg/kg wet							
2,4-Dinitrophenol	ND	1.67	mg/kg wet							
2,4-Dinitrotoluene	ND	0.333	mg/kg wet							
2,6-Dinitrotoluene	ND	0.333	mg/kg wet							
2-Chloronaphthalene	ND	0.333	mg/kg wet							
2-Chlorophenol	ND	0.333	mg/kg wet							
2-Methylnaphthalene	ND	0.333	mg/kg wet							
2-Methylphenol	ND	0.333	mg/kg wet							
2-Nitroaniline	ND	0.333	mg/kg wet							
2-Nitrophenol	ND	0.333	mg/kg wet							
3,3'-Dichlorobenzidine	ND	0.667	mg/kg wet							
3+4-Methylphenol	ND	0.667	mg/kg wet							
3-Nitroaniline	ND	0.333	mg/kg wet							
4,6-Dinitro-2-Methylphenol	ND	1.67	mg/kg wet							
4-Bromophenyl-phenylether	ND	0.333	mg/kg wet							
4-Chloro-3-Methylphenol	ND	0.333	mg/kg wet							
4-Chloroaniline	ND	0.667	mg/kg wet							
4-Chloro-phenyl-phenyl ether	ND	0.333	mg/kg wet							
4-Nitroaniline	ND	0.333	mg/kg wet							
4-Nitrophenol	ND	1.67	mg/kg wet							
Acenaphthene	ND	0.333	mg/kg wet							
Acenaphthylene	ND	0.333	mg/kg wet							
Acetophenone	ND	0.667	mg/kg wet							
Aniline	ND	0.667	mg/kg wet							



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8270C Semi-Volatile Organic Compounds

Batch BC91209 - 3546

Anthracene	ND	0.333	mg/kg wet							
Azobenzene	ND	0.333	mg/kg wet							
Benzo(a)anthracene	ND	0.333	mg/kg wet							
Benzo(a)pyrene	ND	0.167	mg/kg wet							
Benzo(b)fluoranthene	ND	0.333	mg/kg wet							
Benzo(g,h,i)perylene	ND	0.333	mg/kg wet							
Benzo(k)fluoranthene	ND	0.333	mg/kg wet							
Benzoic Acid	ND	1.67	mg/kg wet							
Benzyl Alcohol	ND	0.333	mg/kg wet							
bis(2-Chloroethoxy)methane	ND	0.333	mg/kg wet							
bis(2-Chloroethyl)ether	ND	0.333	mg/kg wet							
bis(2-chloroisopropyl)Ether	ND	0.333	mg/kg wet							
bis(2-Ethylhexyl)phthalate	ND	0.333	mg/kg wet							
Butylbenzylphthalate	ND	0.333	mg/kg wet							
Carbazole	ND	0.333	mg/kg wet							
Chrysene	ND	0.167	mg/kg wet							
Dibenzo(a,h)Anthracene	ND	0.167	mg/kg wet							
Dibenzofuran	ND	0.333	mg/kg wet							
Diethylphthalate	ND	0.333	mg/kg wet							
Dimethylphthalate	ND	0.333	mg/kg wet							
Di-n-butylphthalate	ND	0.333	mg/kg wet							
Di-n-octylphthalate	ND	0.333	mg/kg wet							
Fluoranthene	ND	0.333	mg/kg wet							
Fluorene	ND	0.333	mg/kg wet							
Hexachlorobenzene	ND	0.167	mg/kg wet							
Hexachlorobutadiene	ND	0.333	mg/kg wet							
Hexachlorocyclopentadiene	ND	1.67	mg/kg wet							
Hexachloroethane	ND	0.333	mg/kg wet							
Indeno(1,2,3-cd)Pyrene	ND	0.333	mg/kg wet							
Isophorone	ND	0.333	mg/kg wet							
Naphthalene	ND	0.333	mg/kg wet							
Nitrobenzene	ND	0.333	mg/kg wet							
N-Nitrosodimethylamine	ND	0.333	mg/kg wet							
N-Nitroso-Di-n-Propylamine	ND	0.333	mg/kg wet							
N-nitrosodiphenylamine	ND	0.333	mg/kg wet							
Pentachlorophenol	ND	1.67	mg/kg wet							
Phenanthrene	ND	0.333	mg/kg wet							
Phenol	ND	0.333	mg/kg wet							
Pyrene	ND	0.333	mg/kg wet							
Pyridine	ND	1.67	mg/kg wet							
Surrogate: 1,2-Dichlorobenzene-d4	2.75		mg/kg wet	3.333		82	30-130			
Surrogate: 2,4,6-Tribromophenol	4.91		mg/kg wet	5.000		98	30-130			
Surrogate: 2-Chlorophenol-d4	4.12		mg/kg wet	5.000		82	30-130			
Surrogate: 2-Fluorobiphenyl	2.87		mg/kg wet	3.333		86	30-130			
Surrogate: 2-Fluorophenol	4.18		mg/kg wet	5.000		84	30-130			
Surrogate: Nitrobenzene-d5	2.90		mg/kg wet	3.333		87	30-130			



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8270C Semi-Volatile Organic Compounds

Batch BC91209 - 3546

Surrogate: Phenol-d6	4.17		mg/kg wet	5.000		83	30-130			
Surrogate: p-Terphenyl-d14	3.12		mg/kg wet	3.333		94	30-130			

LCS

1,1-Biphenyl	2.82	0.333	mg/kg wet	3.333		85	40-140			
1,2,4-Trichlorobenzene	2.82	0.333	mg/kg wet	3.333		85	40-140			
1,2-Dichlorobenzene	2.52	0.333	mg/kg wet	3.333		76	40-140			
1,3-Dichlorobenzene	2.57	0.333	mg/kg wet	3.333		77	40-140			
1,4-Dichlorobenzene	2.45	0.333	mg/kg wet	3.333		74	40-140			
2,3,4,6-Tetrachlorophenol	3.31	1.67	mg/kg wet	3.333		99	30-130			
2,4,5-Trichlorophenol	3.00	0.333	mg/kg wet	3.333		90	30-130			
2,4,6-Trichlorophenol	2.97	0.333	mg/kg wet	3.333		89	30-130			
2,4-Dichlorophenol	3.06	0.333	mg/kg wet	3.333		92	30-130			
2,4-Dimethylphenol	2.87	0.333	mg/kg wet	3.333		86	30-130			
2,4-Dinitrophenol	2.84	1.67	mg/kg wet	3.333		85	30-130			
2,4-Dinitrotoluene	2.91	0.333	mg/kg wet	3.333		87	40-140			
2,6-Dinitrotoluene	2.92	0.333	mg/kg wet	3.333		88	40-140			
2-Chloronaphthalene	2.74	0.333	mg/kg wet	3.333		82	40-140			
2-Chlorophenol	2.55	0.333	mg/kg wet	3.333		76	30-130			
2-Methylnaphthalene	2.87	0.333	mg/kg wet	3.333		86	40-140			
2-Methylphenol	2.48	0.333	mg/kg wet	3.333		74	30-130			
2-Nitroaniline	3.05	0.333	mg/kg wet	3.333		91	40-140			
2-Nitrophenol	3.01	0.333	mg/kg wet	3.333		90	30-130			
3,3'-Dichlorobenzidine	2.27	0.667	mg/kg wet	3.333		68	40-140			
3+4-Methylphenol	3.25	0.667	mg/kg wet	6.667		49	30-130			
3-Nitroaniline	2.55	0.333	mg/kg wet	3.333		76	40-140			
4,6-Dinitro-2-Methylphenol	3.57	1.67	mg/kg wet	3.333		107	30-130			
4-Bromophenyl-phenylether	3.18	0.333	mg/kg wet	3.333		95	40-140			
4-Chloro-3-Methylphenol	3.23	0.333	mg/kg wet	3.333		97	30-130			
4-Chloroaniline	2.00	0.667	mg/kg wet	3.333		60	40-140			
4-Chloro-phenyl-phenyl ether	2.95	0.333	mg/kg wet	3.333		88	40-140			
4-Nitroaniline	2.85	0.333	mg/kg wet	3.333		86	40-140			
4-Nitrophenol	3.41	1.67	mg/kg wet	3.333		102	30-130			
Acenaphthene	2.17	0.333	mg/kg wet	3.333		65	40-140			
Acenaphthylene	2.78	0.333	mg/kg wet	3.333		83	40-140			
Acetophenone	2.88	0.667	mg/kg wet	3.333		87	40-140			
Aniline	3.10	0.667	mg/kg wet	3.333		93	40-140			
Anthracene	3.06	0.333	mg/kg wet	3.333		92	40-140			
Azobenzene	2.90	0.333	mg/kg wet	3.333		87	40-140			
Benzo(a)anthracene	3.04	0.333	mg/kg wet	3.333		91	40-140			
Benzo(a)pyrene	3.20	0.167	mg/kg wet	3.333		96	40-140			
Benzo(b)fluoranthene	3.31	0.333	mg/kg wet	3.333		99	40-140			
Benzo(g,h,i)perylene	3.06	0.333	mg/kg wet	3.333		92	40-140			
Benzo(k)fluoranthene	2.68	0.333	mg/kg wet	3.333		80	40-140			
Benzoic Acid	3.10	1.67	mg/kg wet	3.333		93	40-140			
Benzyl Alcohol	2.72	0.333	mg/kg wet	3.333		81	40-140			



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8270C Semi-Volatile Organic Compounds

Batch BC91209 - 3546

bis(2-Chloroethoxy)methane	2.79	0.333	mg/kg wet	3.333		84	40-140			
bis(2-Chloroethyl)ether	2.57	0.333	mg/kg wet	3.333		77	40-140			
bis(2-chloroisopropyl)Ether	2.48	0.333	mg/kg wet	3.333		74	40-140			
bis(2-Ethylhexyl)phthalate	2.83	0.333	mg/kg wet	3.333		85	40-140			
Butylbenzylphthalate	2.81	0.333	mg/kg wet	3.333		84	40-140			
Carbazole	3.60	0.333	mg/kg wet	3.333		108	40-140			
Chrysene	2.99	0.167	mg/kg wet	3.333		90	40-140			
Dibenzo(a,h)Anthracene	3.11	0.167	mg/kg wet	3.333		93	40-140			
Dibenzofuran	2.71	0.333	mg/kg wet	3.333		81	40-140			
Diethylphthalate	2.82	0.333	mg/kg wet	3.333		85	40-140			
Dimethylphthalate	2.83	0.333	mg/kg wet	3.333		85	40-140			
Di-n-butylphthalate	2.75	0.333	mg/kg wet	3.333		83	40-140			
Di-n-octylphthalate	2.87	0.333	mg/kg wet	3.333		86	40-140			
Fluoranthene	2.92	0.333	mg/kg wet	3.333		88	40-140			
Fluorene	3.00	0.333	mg/kg wet	3.333		90	40-140			
Hexachlorobenzene	3.04	0.167	mg/kg wet	3.333		91	40-140			
Hexachlorobutadiene	2.79	0.333	mg/kg wet	3.333		84	40-140			
Hexachlorocyclopentadiene	2.86	1.67	mg/kg wet	3.333		86	40-140			
Hexachloroethane	2.49	0.333	mg/kg wet	3.333		75	40-140			
Indeno(1,2,3-cd)Pyrene	3.11	0.333	mg/kg wet	3.333		93	40-140			
Isophorone	2.37	0.333	mg/kg wet	3.333		71	40-140			
Naphthalene	2.76	0.333	mg/kg wet	3.333		83	40-140			
Nitrobenzene	2.58	0.333	mg/kg wet	3.333		78	40-140			
N-Nitrosodimethylamine	2.66	0.333	mg/kg wet	3.333		80	40-140			
N-Nitroso-Di-n-Propylamine	2.76	0.333	mg/kg wet	3.333		83	40-140			
N-nitrosodiphenylamine	1.67	0.333	mg/kg wet	3.333		50	40-140			
Pentachlorophenol	3.13	1.67	mg/kg wet	3.333		94	30-130			
Phenanthrene	2.98	0.333	mg/kg wet	3.333		89	40-140			
Phenol	2.67	0.333	mg/kg wet	3.333		80	30-130			
Pyrene	2.97	0.333	mg/kg wet	3.333		89	40-140			
Pyridine	3.55	1.67	mg/kg wet	3.333		107	40-140			
Surrogate: 1,2-Dichlorobenzene-d4	2.62		mg/kg wet	3.333		79	30-130			
Surrogate: 2,4,6-Tribromophenol	5.26		mg/kg wet	5.000		105	30-130			
Surrogate: 2-Chlorophenol-d4	4.00		mg/kg wet	5.000		80	30-130			
Surrogate: 2-Fluorobiphenyl	2.80		mg/kg wet	3.333		84	30-130			
Surrogate: 2-Fluorophenol	4.05		mg/kg wet	5.000		81	30-130			
Surrogate: Nitrobenzene-d5	2.88		mg/kg wet	3.333		86	30-130			
Surrogate: Phenol-d6	4.05		mg/kg wet	5.000		81	30-130			
Surrogate: p-Terphenyl-d14	3.01		mg/kg wet	3.333		90	30-130			

LCS Dup

1,1-Biphenyl	3.06	0.333	mg/kg wet	3.333		92	40-140	8	30	
1,2,4-Trichlorobenzene	2.81	0.333	mg/kg wet	3.333		84	40-140	0.4	30	
1,2-Dichlorobenzene	2.58	0.333	mg/kg wet	3.333		77	40-140	2	30	
1,3-Dichlorobenzene	2.39	0.333	mg/kg wet	3.333		72	40-140	7	30	
1,4-Dichlorobenzene	2.75	0.333	mg/kg wet	3.333		83	40-140	11	30	
2,3,4,6-Tetrachlorophenol	3.88	1.67	mg/kg wet	3.333		116	30-130	16	30	

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ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: EA Engineering, Science, and Technology
Client Project ID: Main St

ESS Laboratory Work Order: 0903141

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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8270C Semi-Volatile Organic Compounds

Batch BC91209 - 3546

2,4,5-Trichlorophenol	3.23	0.333	mg/kg wet	3.333		97	30-130	8	30	
2,4,6-Trichlorophenol	3.10	0.333	mg/kg wet	3.333		93	30-130	4	30	
2,4-Dichlorophenol	3.15	0.333	mg/kg wet	3.333		94	30-130	3	30	
2,4-Dimethylphenol	2.95	0.333	mg/kg wet	3.333		88	30-130	3	30	
2,4-Dinitrophenol	3.50	1.67	mg/kg wet	3.333		105	30-130	21	30	
2,4-Dinitrotoluene	3.51	0.333	mg/kg wet	3.333		105	40-140	18	30	
2,6-Dinitrotoluene	3.33	0.333	mg/kg wet	3.333		100	40-140	13	30	
2-Chloronaphthalene	2.82	0.333	mg/kg wet	3.333		85	40-140	3	30	
2-Chlorophenol	2.51	0.333	mg/kg wet	3.333		75	30-130	1	30	
2-Methylnaphthalene	2.93	0.333	mg/kg wet	3.333		88	40-140	2	30	
2-Methylphenol	2.55	0.333	mg/kg wet	3.333		76	30-130	3	30	
2-Nitroaniline	3.38	0.333	mg/kg wet	3.333		101	40-140	10	30	
2-Nitrophenol	3.05	0.333	mg/kg wet	3.333		92	30-130	2	30	
3,3'-Dichlorobenzidine	2.56	0.667	mg/kg wet	3.333		77	40-140	12	30	
3+4-Methylphenol	2.67	0.667	mg/kg wet	6.667		40	30-130	20	30	
3-Nitroaniline	3.06	0.333	mg/kg wet	3.333		92	40-140	18	30	
4,6-Dinitro-2-Methylphenol	3.89	1.67	mg/kg wet	3.333		117	30-130	9	30	
4-Bromophenyl-phenylether	3.01	0.333	mg/kg wet	3.333		90	40-140	6	30	
4-Chloro-3-Methylphenol	3.43	0.333	mg/kg wet	3.333		103	30-130	6	30	
4-Chloroaniline	2.35	0.667	mg/kg wet	3.333		70	40-140	16	30	
4-Chloro-phenyl-phenyl ether	3.23	0.333	mg/kg wet	3.333		97	40-140	9	30	
4-Nitroaniline	3.21	0.333	mg/kg wet	3.333		96	40-140	12	30	
4-Nitrophenol	4.16	1.67	mg/kg wet	3.333		125	30-130	20	30	
Acenaphthene	2.35	0.333	mg/kg wet	3.333		71	40-140	8	30	
Acenaphthylene	3.06	0.333	mg/kg wet	3.333		92	40-140	10	30	
Acetophenone	2.92	0.667	mg/kg wet	3.333		88	40-140	1	30	
Aniline	3.18	0.667	mg/kg wet	3.333		96	40-140	3	30	
Anthracene	3.24	0.333	mg/kg wet	3.333		97	40-140	6	30	
Azobenzene	2.81	0.333	mg/kg wet	3.333		84	40-140	3	30	
Benzo(a)anthracene	3.23	0.333	mg/kg wet	3.333		97	40-140	6	30	
Benzo(a)pyrene	3.47	0.167	mg/kg wet	3.333		104	40-140	8	30	
Benzo(b)fluoranthene	3.32	0.333	mg/kg wet	3.333		100	40-140	0.4	30	
Benzo(g,h,i)perylene	3.43	0.333	mg/kg wet	3.333		103	40-140	11	30	
Benzo(k)fluoranthene	3.15	0.333	mg/kg wet	3.333		94	40-140	16	30	
Benzoic Acid	3.32	1.67	mg/kg wet	3.333		100	40-140	7	30	
Benzyl Alcohol	2.77	0.333	mg/kg wet	3.333		83	40-140	2	30	
bis(2-Chloroethoxy)methane	2.88	0.333	mg/kg wet	3.333		86	40-140	3	30	
bis(2-Chloroethyl)ether	2.47	0.333	mg/kg wet	3.333		74	40-140	4	30	
bis(2-chloroisopropyl)Ether	2.48	0.333	mg/kg wet	3.333		74	40-140	0.1	30	
bis(2-Ethylhexyl)phthalate	2.94	0.333	mg/kg wet	3.333		88	40-140	4	30	
Butylbenzylphthalate	2.92	0.333	mg/kg wet	3.333		87	40-140	4	30	
Carbazole	4.08	0.333	mg/kg wet	3.333		123	40-140	13	30	
Chrysene	3.14	0.167	mg/kg wet	3.333		94	40-140	5	30	
Dibenzo(a,h)Anthracene	3.03	0.167	mg/kg wet	3.333		91	40-140	3	30	
Dibenzofuran	2.97	0.333	mg/kg wet	3.333		89	40-140	9	30	
Diethylphthalate	3.22	0.333	mg/kg wet	3.333		97	40-140	13	30	



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: EA Engineering, Science, and Technology
 Client Project ID: Main St

ESS Laboratory Work Order: 0903141

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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8270C Semi-Volatile Organic Compounds

Batch BC91209 - 3546

Dimethylphthalate	3.12	0.333	mg/kg wet	3.333		94	40-140	10	30	
Di-n-butylphthalate	3.03	0.333	mg/kg wet	3.333		91	40-140	10	30	
Di-n-octylphthalate	3.11	0.333	mg/kg wet	3.333		93	40-140	8	30	
Fluoranthene	3.43	0.333	mg/kg wet	3.333		103	40-140	16	30	
Fluorene	3.34	0.333	mg/kg wet	3.333		100	40-140	11	30	
Hexachlorobenzene	3.06	0.167	mg/kg wet	3.333		92	40-140	0.4	30	
Hexachlorobutadiene	2.76	0.333	mg/kg wet	3.333		83	40-140	1	30	
Hexachlorocyclopentadiene	2.79	1.67	mg/kg wet	3.333		84	40-140	2	30	
Hexachloroethane	2.55	0.333	mg/kg wet	3.333		76	40-140	2	30	
Indeno(1,2,3-cd)Pyrene	3.34	0.333	mg/kg wet	3.333		100	40-140	7	30	
Isophorone	2.42	0.333	mg/kg wet	3.333		73	40-140	2	30	
Naphthalene	2.78	0.333	mg/kg wet	3.333		83	40-140	0.7	30	
Nitrobenzene	2.58	0.333	mg/kg wet	3.333		77	40-140	0.2	30	
N-Nitrosodimethylamine	2.71	0.333	mg/kg wet	3.333		81	40-140	2	30	
N-Nitroso-Di-n-Propylamine	2.75	0.333	mg/kg wet	3.333		82	40-140	0.3	30	
N-nitrosodiphenylamine	1.66	0.333	mg/kg wet	3.333		50	40-140	0.1	30	
Pentachlorophenol	3.51	1.67	mg/kg wet	3.333		105	30-130	11	30	
Phenanthrene	3.19	0.333	mg/kg wet	3.333		96	40-140	7	30	
Phenol	2.71	0.333	mg/kg wet	3.333		81	30-130	2	30	
Pyrene	3.05	0.333	mg/kg wet	3.333		92	40-140	3	30	
Pyridine	3.91	1.67	mg/kg wet	3.333		117	40-140	10	30	
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	2.58		mg/kg wet	3.333		77	30-130			
<i>Surrogate: 2,4,6-Tribromophenol</i>	5.17		mg/kg wet	5.000		103	30-130			
<i>Surrogate: 2-Chlorophenol-d4</i>	3.95		mg/kg wet	5.000		79	30-130			
<i>Surrogate: 2-Fluorobiphenyl</i>	2.70		mg/kg wet	3.333		81	30-130			
<i>Surrogate: 2-Fluorophenol</i>	3.93		mg/kg wet	5.000		79	30-130			
<i>Surrogate: Nitrobenzene-d5</i>	2.76		mg/kg wet	3.333		83	30-130			
<i>Surrogate: Phenol-d6</i>	3.98		mg/kg wet	5.000		80	30-130			
<i>Surrogate: p-Terphenyl-d14</i>	2.82		mg/kg wet	3.333		85	30-130			



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: EA Engineering, Science, and Technology
Client Project ID: Main St

ESS Laboratory Work Order: 0903141

Notes and Definitions

Z-08	See Attached
U	Analyte included in the analysis, but not detected
Q	Calibration required quadratic regression.
D	Diluted.
ND	Analyte NOT DETECTED above the detection limit
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
MDL	Method Detection Limit
MRL	Method Reporting Limit
I/V	Initial Volume
F/V	Final Volume
§	Subcontracted analysis; see attached report
1	Range result excludes concentrations of surrogates and/or internal standards eluting in that range.
2	Range result excludes concentrations of target analytes eluting in that range.
3	Range result excludes the concentration of the C9-C10 aromatic range.
Avg	Results reported as a mathematical average.



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: EA Engineering, Science, and Technology
Client Project ID: Main St

ESS Laboratory Work Order: 0903141

ESS LABORATORY CERTIFICATIONS

U.S. Army Corps of Engineers
Soil and Water

Rhode Island: A-179
Potable and Non Potable Water

<http://www.health.ri.gov/labs/waterlabs-instate.php>

Connecticut: PH-0750
Potable and Non Potable Water, Solid and Hazardous Waste

http://www.ct.gov/dph/lib/dph/environmental_health/environmental_laboratories/pdf/out_state.pdf

Maine: RI002
Potable and Non Potable Water

http://www.maine.gov/dep/blwq/topic/vessel/lab_list.pdf

Massachusetts: M-RI002
Potable and Non Potable Water

<http://public.dep.state.ma.us/labcert/labcert.aspx>

New Hampshire (NELAP accredited): 242405
Potable and Non Potable Water

<http://www4.egov.nh.gov/des/nhelap/namesearch.asp>

New York (NELAP accredited): 11313
Potable and Non Potable Water, Solid and Hazardous Waste

<http://www.wadsworth.org/labcert/elap/comm.html>

United States Department of Agriculture
Soil Permit: S-54210

New Jersey (NELAP accredited): RI002
Potable and Non Potable Water, Solid and Hazardous Waste

<http://www.nj.gov/dep/oqa/certlabs.htm>

Maryland: 301
Potable Water

http://www.mde.state.md.us/assets/document/wsp_labs

South Carolina: 78003
Volatile Organic Compounds in Potable Water

ESS Laboratory
 Division of Thielsch Engineering, Inc.
 185 Frances Avenue, Cranston, RI 02910-2211
 Tel. (401) 461-7181 Fax (401) 461-4486
 www.esslaboratory.com

CHAIN OF CUSTODY

Turn Time Standard Other _____
 If faster than 5 days, prior approval by laboratory is required # _____
 State where samples were collected from:
 MA CT NH NJ NY ME Other _____
 Is this project for any of the following: USACE Other _____
 MA-MCP Navy

Reporting Limits
 N/A (limits per 090314)
 Electronic Deliverable Yes No
 Format: Excel Access PDEX Other _____

Co. Name	Project #	Project Name (20 Char. or less)	ESS LAB Sample#	Date	Collection Time	COMP	GRAB	MATRIX	Sample Identification (20 Char. or less)	Pres Code	Type of Containers	Number of Containers	Type of Containers	Write Required Analysis
EA Engineering	62130.12	Main St.	1	3/12/09	1100		X	S	Main Power	1	G	4	G	PCB TCF Metals PCB & Metals
Contact Person	Matt Richardson													
City	Warwick RI													
Address	235D Post Road													
Zip	02886													
Telephone #	736-3440 ext. 219													
Fax #	736-3423													
Email Address	mrichardson@east.com													

Container Type: P-Poly G-Glass S-Sterile V-VOA Matrix: S-Soil SD-Solid D-Sludge WW-Waste Water GW-Ground Water SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filters
 Cooler Present Yes No Internal Use Only
 Seals Intact Yes No NA: [] Pickup
 Cooler Temp: 7.8
 Preservation Code: 1- NP, 2- HCl, 3- H₂SO₄, 4- HNO₃, 5- NaOH, 6- MeOH, 7- Asorbic Acid, 8- ZnAct, 9- _____
 Sampled by: Matt Richardson
 Comments:

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
<i>[Signature]</i>	3/12/09 1355	<i>[Signature]</i>	3/20/09 1355
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time