



SAGE
ENVIRONMENTAL

April 8, 2013

Mr. Joseph Martella
RI Dept. of Environmental Management
Office of Waste Management
235 Promenade Street
Providence, Rhode Island 02903

**RE: *Soil Amendment Approval Request
Queen Anne Square
Newport, Rhode Island
SAGE Project No. S2244***

Dear Mr. Martella:

Please consider this as a request for approval to utilize TerraPro, a humic acid additive, as a soil amendment at the referenced Site. As discussed during recent telephone conversations with the Rhode Island Department of Environmental Management (RIDEM), loam additives are proposed for the loam being utilized for the cap to amend the soil due to low concentrations of organics in the loam.

Originally, compost was considered; however, given the variability of the source(s) of this material and foreign matter present, compost was rejected as a soil additive.

Currently, the use of TerraPro (a humic acid additive) in combination with a bark mulch material is proposed to amend the loam. A total of 4,000 pounds (or approximately 2.5 cubic yards) of TerraPro is proposed to be applied to the surface of cap loam and raked in prior to placement of sod. The application rate is slightly less than 50 pounds per 1,000 square foot of surface. Manufacturer's literature is included for your review as **Attachment 1**.

SAGE Environmental, Inc. (SAGE) was furnished with a sample of the TerraPro material, and the material was placed in analyte-specific containers, placed on ice and transported to a Rhode Island-certified laboratory for analysis. Results of analysis of this material are included in **Table 1**. The laboratory analytical report, including chain-of-custody documentation, is included in **Attachment 2**.

Table 1

Sample / (Depth) / Date Analyte	Concentration		RIDEM Method 1 Objective	
	Humic 4/5/2013		Direct Exposure (Residential)	GB Leachability
TPH by 8100M (mg/kg):				
Total Petroleum Hydrocarbons	153		500	2500
Volatile Organic Compounds by 8260B (ug/kg):				
Vinyl Chloride	<130 ^e		20	NE
Bromomethane	<130		800	NE
Chloroethane	<130		NE	NE
Acetone	<660		7800000	NE
1,1-Dichloroethene	<130		200	700
Carbon Disulfide	<130		NE	NE
Methylene Chloride	<130		45000	NE
tert-Butyl methyl ether	<130		390000	100000
trans-1,2 Dichloroethene	<130		1100000	92000
1,1-Dichloroethane	<130		920000	NE
2-Butanone	<660		10000000	NE
2,2-Dichloropropane	<130		NE	NE
cis-1,2-Dichloroethene	<130		630000	60000
Chloroform	<130		1200	NE
Bromochloromethane	<130		NE	NE
1,1,1-Trichloroethane	<130		540000	160000
1,1-Dichloropropene	<130		NE	NE
Carbon Tetrachloride	<130		1500	5000
Benzene	<130		2500	4300
1,2-Dichloroethane	<130		900	2300
Trichloroethene	<130		13000	20000
1,2-Dichloropropane	<130		1900	70000
Bromodichloromethane	<130		10000	NE
Dibromomethane	<130		NE	NE
4-Methyl-2-pentanone	<660		1200000	NE
Ethylene Dibromide	<130 ^e		10	NE
cis-1,3-Dichloropropene	<130		NE	NE
Toluene	<130		190000	54000
Trans-1,3-Dichloropropene	<130		NE	NE
1,1,2-Trichloroethane	<130		3600	NE
2-Hexanone	<660		NE	NE
Tetrachloroethene	<130		12000	4200
Chlorodibromomethane	<130		7600	NE
Chlorobenzene	<130		210000	100000
1,1,1,2-Tetrachloroethane	<130		2200	NE
Ethylbenzene	<130		71000	62000
Total Xylenes	<260		110000	NE
Styrene	<130		13000	64000
Bromoform	<130		81000	NE
Isopropylbenzene	<130		27000	NE
1,1,2,2-Tetrachloroethane	<130		1300	NE
Bromobenzene	<130		NE	NE
1,2,3-Trichloropropane	<130		NE	NE
2-Chlorotoluene	<130		NE	NE
n-Propylbenzene	<130		NE	NE
1,3,5-Trimethylbenzene	<130		NE	NE
4-Chlorotoluene	<130		NE	NE
tert-Butylbenzene	<130		NE	NE
1,2,4-Trimethylbenzene	<130		NE	NE
sec-Butylbenzene	<130		NE	NE
p-Isopropyltoluene	<130		NE	NE
Chloromethane	<130		NE	NE
tert butyl alcohol	<130		NE	NE
1,3-Dichlorobenzene	<130		430000	NE
Tetrahydrofuran	<130		NE	NE
1,4-Dichlorobenzene	<130		27000	NE
Diethyl Ether	<130		NE	NE
n-Butylbenzene	<130		NE	NE
1,2-Dichlorobenzene	<130		510000	NE
1,2-Dibromo-3-chloropropane	<130		500	NE
1,2,4-Trichlorobenzene	<130		96000	NE
Hexachlorobutadiene	<130		8200	NE
Naphthalene	<130		54000	NE
1,2,3-Trichlorobenzene	<130		NE	NE
Tert-amyl Methyl Ether	<130		NE	NE
Dichlorodifluoromethane	<130		NE	NE
1,3-Dichloropropane	<130		NE	NE
Trichlorofluoromethane	<130		NE	NE
Ethyl Tert-butyl ether	<130		NE	NE
Diisopropyl Ether	<130		NE	NE
1,4-Dioxane	<33000		NE	NE
Total Trihalomethanes	<130		NE	NE
Semivolatile Organic Compounds by 8270D (ug/kg):				
n-Nitrosodimethylamine	<190		NE	NE
Pyridine	<130		NE	NE
Phenol	<130		6000000	NE
Aniline	<130		NE	NE
bis(2-Chloroethyl)ether	<130		600	NE
2-Chlorophenol	<130		50000	NE
1,3-Dichlorobenzene	<130		430000	NE
1,4-Dichlorobenzene	<130		27000	NE
1,2-Dichlorobenzene	<130		510000	NE
2-Methylphenol	<130		NE	NE
bis(2-chloroisopropyl)ether	<130		9100	NE
3- & 4-Methylphenol	<250		NE	NE
n-Nitroso-di-n-propylamine	<130		NE	NE
Hexachloroethane	<130		46000	NE

Table 1 (continued)

Sample / (Depth) / Date Analyte	Concentration		RIDEM Method 1 Objective	
	Humic 4/5/2013	Humic 4/5/2013	Direct Exposure (Residential)	GB Leachability
Semivolatile Organic Compounds by 8270D (ug/kg):				
Nitrobenzene	<130		NE	NE
Isophorone	<130		NE	NE
2-Nitrophenol	<310		NE	NE
2,4-Dimethylphenol	<630		1400000	NE
Benzoic acid	<940		NE	NE
bis(2-Chloroethoxy)methane	<130		NE	NE
2,4-Dichlorophenol	<310		30000	NE
1,2,4-Trichlorobenzene	<130		96000	NE
Naphthalene	<130		54000	NE
4-Chloroaniline	<130		310000	NE
Hexachlorobutadiene	<130		8200	NE
4-Chloro-3-methylphenol	<130		NE	NE
2-Methylnaphthalene	<130		123000	NE
Hexachlorocyclopentadiene	<130		NE	NE
2,4,6-Trichlorophenol	<130		58000	NE
2,4,5-Trichlorophenol	<130		330000	NE
2-Chloronaphthalene	<130		NE	NE
2-Nitroaniline	<130		NE	NE
Dimethyl phthalate	<130		1900000	NE
Acenaphthylene	<130		23000	NE
2,6-Dinitrotoluene	<130		NE	NE
3-Nitroaniline	<130		NE	NE
Acenaphthene	<130		43000	NE
2,4-Dinitrophenol	<310		160000	NE
4-Nitrophenol	<310		NE	NE
Dibenzofuran	<130		NE	NE
2,4-Dinitrotoluene	<130		900	NE
Diethyl phthalate	<130		340000	NE
Fluorene	<130		28000	NE
4-Chlorophenyl phenyl ether	<130		NE	NE
4-Nitroaniline	<130		NE	NE
4,6-Dinitro-2-methylphenol	<310		NE	NE
n-Nitrosodiphenylamine	<130		NE	NE
4-Bromophenyl phenyl ether	<130		NE	NE
Hexachlorobenzene	<130		400	NE
Pentachlorophenol	<310		5300	NE
Phenanthrene	<130		40000	NE
Anthracene	<130		35000	NE
Di-n-butylphthalate	<190		NE	NE
Fluoranthene	<130		20000	NE
Benzidine	<3800		NE	NE
Pyrene	<130		13000	NE
Butyl benzyl phthalate	<130		NE	NE
3,3'-Dichlorobenzidine	<310		1400	NE
Benzo(a)anthracene	<130		900	NE
Chrysene	<130		400	NE
bis(2-Ethylhexyl)phthalate	<190		46000	NE
Di-n-octyl phthalate	<190		NE	NE
Benzo(b)fluoranthene	<130		900	NE
Benzo(k)fluoranthene	<130		900	NE
Benzo(a)pyrene	<130		400	NE
Dibenz(a,h)anthracene	<130		400	NE
Indeno(1,2,3-cd)pyrene	<130		900	NE
Benzo(g,h,i)perylene	<130		800	NE
Total Metals by 6010C (mg/kg):				
Antimony	<1.72		10	NE
Arsenic	2.04		7	NE
Beryllium	<0.86		1.5	NE
Cadmium	<0.86		39	NE
Chromium	3.18		390	NE
Copper	8.52		3100	NE
Lead	10.5		150	NE
Nickel	2.13		1000	NE
Selenium	<1.72		390	NE
Silver	<0.86		200	NE
Zinc	6.89		6000	NE
Total Metals by 7471B (mg/kg):				
Mercury	<0.105		23	NE
Total Metals by 7010 (mg/kg):				
Thallium	<0.43		5.5	NE
PCBs by 8082A (ug/kg):				
Aroclor-1016	<100			
Aroclor-1221	<100			
Aroclor-1232	<100			
Aroclor-1242	<100			
Aroclor-1248	<100			
Aroclor-1254	<100			
Aroclor-1260	<100			
Aroclor-1262	<100			
Aroclor-1268	<100			
Total PCB	<100		10000	10000

Where necessary, the RIDEM objectives, in ppm, have been converted to ppb to match the laboratory reporting method.

NE: No allowable limit is established for the substance

<x: Indicates analyte concentration not detected at or above specified laboratory quantitation limit (x)

Sample Results:

e: Although the analyte was not detected, the laboratory quantitation limit for this sample exceeds the RIDEM objectives for Direct Exposure in a residential area

Based on the laboratory analytical data obtained, the TerraPro material, in its pure form meets the RIDEM Method 1 Residential Direct Exposure Criteria for analytes tested.

As indicated above, the material will be applied to the cap loam prior to sod placement at a rate of approximately 50 pounds per thousand square feet. The loam will be blended with a bark mulch material at an approximate rate of one part mulch material to three parts loam.

The source of the mulch material is Old Castle products of 49 Stilson Road in Wyoming, Rhode Island. Old Castle manufactures bark mulch for distribution to various wholesalers.

During the grinding process, a material unsuitable for mulch use is generated. This material is comprised of bark from both hard and soft woods, however contains fines from grinding that render the material unsuitable for use as finished mulch.

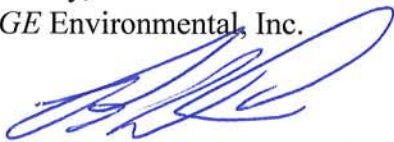
Samples of the material were obtained by *SAGE* on April 8, 2013 for laboratory analysis. Samples were placed in analyte-specific containers, on ice and transported to a Rhode Island-certified laboratory for analysis. Assuming laboratory testing shows the mulch material suitable for blending with loam, it is anticipated that soil blending will be initiated soon. Loam samples were previously obtained and laboratory tested and found to be residentially compliant and suitable for use in the cap. Analytical data for loam and mulch will be provided in the pending status report.

By way of this letter, on behalf of its client the Newport Restoration Foundation, *SAGE* is requesting RIDEM's approval for use of 4,000 pounds of the TerraPro product to be applied at an application rate of approximately 50 pounds per 1,000 square feet as a soil amendment at the Site.

Should you have any questions, comment or require additional information to evaluate our request, please promptly contact the undersigned.

Thank you in advance for prompt consideration of our request.

Sincerely,
SAGE Environmental, Inc.



Bruce W. Clark
Principal

BWC:car

Attachment

c: Kelly Owens, RIDEM, OWM
Pieter Roos, Newport Restoration Foundation

ATTACHMENT 1



What is TerraPro®?

TerraPro is the commercial formulation of our retail Home & Garden product called **Earth Magic**®. Commercially it's formulated with unique characteristics applicable to agriculture and the equipment available to spread it and for commercial contractor use where hydroseeding slurry application might be the best option. It's a formulation of Humic Acids containing all three of the most important soil carbon biologic fractions called Humic, Humin and Fulvic acids, which are the active ingredients. TerraPro can be provided in a powder, or granular form including an **Ag Grade TerraPro**® for agriculture. **TerraPro**® is used in many countries by farmers and contractors on engineered projects such as erosion control, highway revegetation and mine reclamation. It's also used aggressively to remediate sodium and salts from farm soils and for breaking down Petroleum Hydrocarbons from soil where crude oil has been spilled. The active ingredient of the Humic Acids has also been discovered to have the ability to buffer toxic soil chemistry such as pH that is too high or too low for plant growth.

It's the only product globally that has molecular evidence of its active ingredients being composed of these substances. According to research published in 2001, **Journal of Chemical Education**, there is nothing more important to the structure and health of a soil than the Humic Acids. A quote taken from that paper says: **"Humic Acids (HA's) are essential for a healthy and productive soil."** Nothing else that you can buy on the retail shelf contains a significant amount of Humic Acids, or research evidence of Humic Acids on a molecular level proving that the active ingredient has the molecular potential to function properly providing the benefits we need.

We can say this with confidence because we hired the National Labs of Los Alamos and Sandia to help us perform our research on Soil Amendment products including our own formulations, where we looked for, purified and measured the Humic Acids found in soil and in products. This research analysis was performed down to a molecular sub atomic level where we have fully described the molecules, the molecular functions, and the molecular characteristics of all three Humic acid fractions. Something that has never been done by any person or university in the past! With this information, I can promise you that there is nothing better that you can add (amend) into your soil, that can improve the health of your soil, improve the structure of your soil and contribute to an improved biological environment for all the beneficial microbes, than the products of Earth Magic or TerraPro.

The contract with the labs is exclusive to Soil Secrets providing us with Proprietary Commercial Information.

A & L PLAINS AGRICULTURAL LABORATORIES, INC.
 302 34th St. • P.O. Box 1590 • Lubbock, TX 79408 • (806) 763-4278
 FAX (806) 763-2762 • www.al-labs-plains.com



09-124-035

REPORT NUMBER

May 7, 2009

Page 1

Send to: Soil Secrets LLC
 9 Gilcrease Lane
 Los Lunas, NM 87031

Submitted by: Michael Martin Melendrez

Re: Export License

Lab No: 64947
 Sample ID Terra Pro
 Humus

COMPOST ANALYSIS

Moisture:	25.0 %	Lbs/Ton
Total Kjeldahl Nitrogen:	<u>"As Is Basis"</u>	
Phosphorus	1.05 %	21.00
as Phosphate	1.95 %	39.00
Potassium	4.47 %	89.31
as Potash	0.94 %	18.80
Sulfur	1.13 %	22.65
Calcium	0.32 %	6.40
Magnesium	2.11 %	42.20
Sodium	0.38 %	7.60
Iron	0.46 %	9.20
Aluminum	4677 ppm	9.35
Manganese	4831 ppm	9.66
Copper	370 ppm	0.74
Zinc	357 ppm	0.71
pH	424 ppm	0.85
C.E.C.	3.9	
Humic Acid	100.3 meq/100g	
Organic Matter by Combustion	76.0 %	
	58.7 %	

Respectfully Submitted,

by *Michael Martin Melendrez*
 A&L Plains Ag Labs, Inc..

ATTACHMENT 2



REPORT OF ANALYTICAL RESULTS

NETLAB Case Number Z0408-08

SAGE Project : S2244

Prepared for:

Sage Environmental
172 Armistice Boulevard
Pawtucket, RI 02860

Report Date: April 8, 2013

Reviewed By:

Richard Warila
Laboratory Director

Lab # RI010

NEW ENGLAND TESTING LABORATORY, INC.

1254 Douglas Avenue, North Providence, RI 02904

(401) 353-3420

SAMPLES SUBMITTED and REQUEST FOR ANALYSIS:

The samples listed in Table I were submitted to New England Testing Laboratory on April 8, 2013. The group of samples appearing in this report was assigned an internal identification number (case number) for laboratory information management purposes. The client's designations for the individual samples, along with our case numbers, are used to identify the samples in this report. This report of analytical results pertains only to the sample(s) provided to us by the client which are indicated on the custody record. The case number for this sample submission is Z0408-08.

Custody records are included in this report.

Site: Queen Anne Square, Newport, RI

TABLE I, Samples Submitted

Sample ID	Date Sampled	Matrix	Analysis Requested
Humic	4/5/13	Soil	Table II

TABLE II, Analysis and Methods

ANALYSIS	PREPARATION METHOD	DETERMINATIVE METHOD
Semi-volatile Compounds	3550C	8270D
PCBs	3541	8082A
Volatile Organic Compounds	5035	8260B
Total Petroleum Hydrocarbons	3550C	8100 mod.
Total Metals		
Antimony	3050B	6010C
Arsenic	3050B	6010C
Beryllium	3050B	6010C
Cadmium	3050B	6010C
Chromium	3050B	6010C
Copper	3050B	6010C
Lead	3050B	6010C
Mercury	NA	7471B
Nickel	3050B	6010C
Selenium	3050B	6010C
Silver	3050B	6010C
Thallium	3050B	7010
Zinc	3050B	6010C

These methods are documented in:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846, USEPA/OSW.

CASE NARRATIVE:

Sample Receipt

The samples were all appropriately cooled and preserved upon receipt. The samples were received in the appropriate containers. The chain of custody was adequately completed and corresponded to the samples submitted.

Metals

All analyses were performed according to NETLAB's documented Standard Operating Procedures, within all required holding times, and with appropriate quality control measures. All QC was within laboratory established acceptance criteria. The samples were received, processed, and reported with no anomalies.

PCBs

All samples were extracted and analyzed within method specified holding times and according to NETLAB's documented standard operating procedures. The results for the associated calibration, method blank and laboratory control sample (LCS) were within method specified quality control criteria.

Semi-volatile Compounds

All samples were extracted and analyzed within method specified holding times and according to NETLAB's documented standard operating procedures. The results for the associated calibration, method blank and laboratory control sample (LCS) were within method specified quality control criteria.

One surrogate outside quality control limits due to matrix interference.

Total Petroleum Hydrocarbons

All samples were extracted and analyzed within method specified holding times and according to NETLAB's documented standard operating procedures. The results for the associated calibration, method blank and laboratory control sample (LCS) were within method specified quality control criteria.

The surrogate was reported outside quality control limits due to matrix interference.

Volatile Organic Compounds

All samples were analyzed within method specified holding times and according to NETLAB's documented standard operating procedures. The results for the associated calibration, method blank and laboratory control sample (LCS) were within method specified quality control criteria.

Sample: Humic		Analyst's Initials:BJ
Case No. Z0408-08		
Date Collected: 4/5/13		
Sample Matrix: Soil		
Subject: TPH		
Prep Method: EPA 3550C	Date Extracted	Date Analyzed
Analytical Method: EPA 8100 M	4/8/13	4/8/13
Compound	Concentration, mg/kg* (ppm)	Reporting Limit
Total Petroleum Hydrocarbons	153	25
Surrogates:		
Compound	% Recovery	Limits
Chlorooctadecane	5	62-151

ND = Not Detected

*Dry Weight Basis

METALS RESULTS

The presence of the NETLAB LOGO in the top right corner of each page in this section indicates:

The Technical Manager of the Metals Analysis Department certifies that the results included in this section have been reviewed and approved. Any exceptions or qualifications of substance have been reported in the case narrative.

New England Testing Laboratory, Inc.

METALS RESULTS



Case Number: Z0408-08
 Sample ID: Humic
 Date collected: 4/5/13
 Matrix: Soil
 Solids, %: 78.61
 Sample Type: Total

Analyst JC/RS

Parameter	CAS Number	Preparative Method	Analytical Method	Result	Reporting Limit	Units	Date of Preparation	Date Analyzed
Antimony	7440-36-0	3050B	6010C	ND	1.72	mg/kg	4/8/13	4/8/13
Arsenic	7440-38-2	3050B	6010C	2.04	1.72	mg/kg	4/8/13	4/8/13
Beryllium	7440-41-7	3050B	6010C	ND	0.86	mg/kg	4/8/13	4/8/13
Cadmium	7440-43-9	3050B	6010C	ND	0.86	mg/kg	4/8/13	4/8/13
Chromium	7440-47-3	3050B	6010C	3.18	0.86	mg/kg	4/8/13	4/8/13
Copper	7440-50-8	3050B	6010C	8.52	3.44	mg/kg	4/8/13	4/8/13
Lead	7439-92-1	3050B	6010C	10.5	0.86	mg/kg	4/8/13	4/8/13
Mercury	7439-97-6	NA	7471B	ND	0.105	mg/kg	4/8/13	4/8/13
Nickel	7440-02-0	3050B	6010C	2.13	0.86	mg/kg	4/8/13	4/8/13
Selenium	7782-49-2	3050B	6010C	ND	1.72	mg/kg	4/8/13	4/8/13
Silver	7440-22-4	3050B	6010C	ND	0.86	mg/kg	4/8/13	4/8/13
Thallium	7440-28-0	3050B	7010	ND	0.43	mg/kg	4/8/13	4/8/13
Zinc	7440-66-6	3050B	6010C	6.89	3.44	mg/kg	4/8/13	4/8/13

ND indicates Not Detected.

All results are reported on a dry weight basis.

METALS RESULTS



Sample ID: Preparation Blank
 Matrix: SOIL
 Solids, %: 100
 Sample Type: Total

Analyst JC/RS

Parameter	CAS Number	Preparative Method	Analytical Method	Result	Reporting Limit	Units	Date of Preparation	Date Analyzed
Antimony	7440-36-0	3050B	6010C	ND	0.67	mg/kg	4/8/13	4/8/13
Arsenic	7440-38-2	3050B	6010C	ND	0.67	mg/kg	4/8/13	4/8/13
Beryllium	7440-41-7	3050B	6010C	ND	0.33	mg/kg	4/8/13	4/8/13
Cadmium	7440-43-9	3050B	6010C	ND	0.33	mg/kg	4/8/13	4/8/13
Chromium	7440-47-3	3050B	6010C	ND	0.33	mg/kg	4/8/13	4/8/13
Copper	7440-50-8	3050B	6010C	ND	1.33	mg/kg	4/8/13	4/8/13
Lead	7439-92-1	3050B	6010C	ND	0.33	mg/kg	4/8/13	4/8/13
Mercury	7439-97-6	NA	7471B	ND	0.067	mg/kg	4/8/13	4/8/13
Nickel	7440-02-0	3050B	6010C	ND	0.33	mg/kg	4/8/13	4/8/13
Selenium	7782-49-2	3050B	6010C	ND	0.67	mg/kg	4/8/13	4/8/13
Silver	7440-22-4	3050B	6010C	ND	0.33	mg/kg	4/8/13	4/8/13
Thallium	7440-28-0	3050B	7010	ND	0.13	mg/kg	4/8/13	4/8/13
Zinc	7440-66-6	3050B	6010C	ND	1.33	mg/kg	4/8/13	4/8/13

ND indicates Not Detected.

All results are reported on a dry weight basis.

LABORATORY CONTROL SAMPLE RECOVERY

Parameter	True Value	Result	Units	Recovery, %	Internal		Date Analyzed
					LCL, %	UCL, %	
Antimony	66.7	65.7	mg/kg	98	80	120	4/8/13
Arsenic	13.3	12.6	mg/kg	94	80	120	4/8/13
Beryllium	13.3	13.0	mg/kg	98	80	120	4/8/13
Cadmium	66.7	59.3	mg/kg	89	80	113	4/8/13
Chromium	66.7	62.7	mg/kg	94	80	115	4/8/13
Copper	66.7	58.0	mg/kg	87	80	120	4/8/13
Lead	66.7	62.0	mg/kg	93	80	114	4/8/13
Mercury	0.133	0.143	mg/kg	107	80	120	4/8/13
Nickel	66.7	59.9	mg/kg	90	80	107	4/8/13
Selenium	13.3	12.2	mg/kg	92	80	120	4/8/13
Silver	33.3	29.8	mg/kg	89	80	120	4/8/13
Thallium	1.33	1.34	mg/kg	101	82	120	4/8/13
Zinc	66.7	59.7	mg/kg	90	80	119	4/8/13

RESULTS: PCBs

The presence of the NETLAB LOGO in the top right corner of each page in this section indicates:

The Technical Manager of the Organics Analysis Department certifies that the samples included in this section have been prepared and analyzed using the procedures cited and that the results have been reviewed and approved. Any exceptions or qualifications of substance have been reported in the case narrative.

Sample: Humic		Analyst's Initials: BJ
Case No.: Z0408-08		
Date Collected: 4/8/13		
Sample Matrix: Soil		
Subject: PCBs	Date Extracted	Date Analyzed
Prep Method: EPA 3541	4/8/13	4/8/13
Analytical Method: EPA 8082A		
Compound	Concentration ug/kg* (ppb)	Reporting Limit ug/kg* (ppb)
Aroclor-1221	N.D.	100
Aroclor-1232	N.D.	100
Aroclor-1016	N.D.	100
Aroclor-1242	N.D.	100
Aroclor-1248	N.D.	100
Aroclor-1254	N.D.	100
Aroclor-1260	N.D.	100
Aroclor-1262	N.D.	100
Aroclor-1268	N.D.	100
Surrogates:		
Compound	% Recovery	Limits
TCMX	46	45-109
DCBP	55	53-127

*Dry Weight Basis
 N.D. = Not Detected

Sample: Method Blank		Analyst's Initials: BJ
Case No.: Z0408-08		
Date Collected: NA		
Sample Matrix: Soil		
Subject: PCBs	Date Extracted	Date Analyzed
Prep Method: EPA 3541	4/8/13	4/8/13
Analytical Method: EPA 8082A		
Compound	Concentration ug/kg (ppb)	Reporting Limit ug/kg (ppb)
Aroclor-1221	N.D.	100
Aroclor-1232	N.D.	100
Aroclor-1016	N.D.	100
Aroclor-1242	N.D.	100
Aroclor-1248	N.D.	100
Aroclor-1254	N.D.	100
Aroclor-1260	N.D.	100
Aroclor-1262	N.D.	100
Aroclor-1268	N.D.	100
Surrogates:		
Compound	% Recovery	Limits
TCMX	86	45-109
DCBP	92	53-127

N.D. = Not Detected

PCB Laboratory Control Spike

Sample Matrix: Soil				
Subject: PCB	Date Extracted			Date Analyzed
Prep Method: EPA 3540C	4/8/13			4/8/13
Analytical Method: EPA 8082A				
Compound	Amount Spiked mg/kg	Result mg/kg	Recovery %	Recovery Limits
Aroclor 1016	0.500	0.445	89	66-140
Aroclor 1260	0.500	0.427	85	63-130
Surrogates:				
Compound	% Recovery	Limits		
TCMX	97	45-109		
DCBP	101	53-127		

RESULTS: SEMIVOLATILE ORGANIC COMPOUNDS

The presence of the NETLAB LOGO in the top right corner of each page in this section indicates:

The Technical Manager of the Organics Analysis Department certifies that the samples included in this section have been prepared and analyzed using the procedures cited and that the results have been reviewed and approved. Any exceptions or qualifications of substance have been reported in the case narrative.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: Z0408-08 Client Name: Sage Environmental
 Method: 8270 Lab Sample ID: Humic
 Matrix: (soil/water/air) SOIL Lab File ID: B040803.D
 Sample wt/vol: 20.093 (g/ml) G Date Sampled: 4/5/2013
 Level: (low/med) LOW Date Extracted: 4/8/2013
 % Moisture: 21.39 Date Analyzed: 4/8/2013
 Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0
 Injection Volume: 1.0 (uL)
 Analyst's Initials: JD

CAS NO.	COMPOUND	UNITS:	UG/KG	Q
62-75-9	n-Nitrosodimethylamine		190	U
110-86-1	Pyridine		130	U
108-95-2	Phenol		130	U
62-53-3	Aniline		130	U
111-44-4	bis(2-Chloroethyl)ether		130	U
95-57-8	2-Chlorophenol		130	U
541-73-1	1,3-Dichlorobenzene		130	U
106-46-7	1,4-Dichlorobenzene		130	U
95-50-1	1,2-Dichlorobenzene		130	U
95-48-7	2-Methylphenol		130	U
108-60-1	bis(2-chloroisopropyl)ether		130	U
106-44-5	3- & 4-Methylphenol		250	U
621-64-7	n-Nitroso-di-n-propylamine		130	U
67-72-1	Hexachloroethane		130	U
98-95-3	Nitrobenzene		130	U
78-59-1	Isophorone		130	U
88-75-5	2-Nitrophenol		310	U
105-67-9	2,4-Dimethylphenol		630	U
65-85-0	Benzoic acid		940	U
111-91-1	bis(2-Chloroethoxy)methane		130	U
120-83-2	2,4-Dichlorophenol		310	U
120-82-1	1,2,4-Trichlorobenzene		130	U
91-20-3	Naphthalene		130	U
106-47-8	4-Chloroaniline		130	U
87-68-3	Hexachlorobutadiene		130	U
59-50-7	4-Chloro-3-methylphenol		310	U
91-57-6	2-Methylnaphthalene		130	U
77-47-4	Hexachlorocyclopentadiene		130	U
88-06-2	2,4,6-Trichlorophenol		130	U
95-95-4	2,4,5-Trichlorophenol		130	U
91-58-7	2-Chloronaphthalene		130	U
88-74-4	2-Nitroaniline		130	U
131-11-3	Dimethyl phthalate		130	U
208-96-8	Acenaphthylene		130	U
606-20-2	2,6-Dinitrotoluene		130	U

U=not detected, D=diluted, E=over range (another data sheet is included), J=below limit, B=found in blank

New England Testing Laboratory, Inc.

FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: Z0408-08 Client Name: Sage Environmental
 Method: 8270 Lab Sample ID: Humic
 Matrix: (soil/water/air) SOIL Lab File ID: B040803.D
 Sample wt/vol: 20.093 (g/ml) G Date Sampled: 4/5/2013
 Level: (low/med) LOW Date Extracted: 4/8/2013
 % Moisture: 21.39 Date Analyzed: 4/8/2013
 Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0
 Injection Volume: 1.0 (uL)
 Analyst's Initials: JD

CAS NO.	COMPOUND	UNITS:	UG/KG	Q
99-09-2	3-Nitroaniline		130	U
83-32-9	Acenaphthene		130	U
51-28-5	2,4-Dinitrophenol		310	U
100-02-7	4-Nitrophenol		310	U
132-64-9	Dibenzofuran		130	U
121-14-2	2,4-Dinitrotoluene		130	U
84-66-2	Diethyl phthalate		130	U
86-73-7	Fluorene		130	U
7005-72-3	4-Chlorophenyl phenyl ether		130	U
100-01-6	4-Nitroaniline		130	U
534-52-1	4,6-Dinitro-2-methylphenol		310	U
86-30-6	n-Nitrosodiphenylamine		130	U
101-55-3	4-Bromophenyl phenyl ether		130	U
118-74-1	Hexachlorobenzene		130	U
87-86-5	Pentachlorophenol		310	U
85-01-8	Phenanthrene		130	U
120-12-7	Anthracene		130	U
84-74-2	Di-n-butylphthalate		190	U
206-44-0	Fluoranthene		130	U
92-87-5	Benzidine		3800	U
129-00-0	Pyrene		130	U
85-68-7	Butyl benzyl phthalate		130	U
91-94-1	3,3'-Dichlorobenzidine		310	U
56-55-3	Benzo(a)anthracene		130	U
218-01-9	Chrysene		130	U
117-81-7	bis(2-Ethylhexyl)phthalate		190	U
117-84-0	Di-n-octyl phthalate		190	U
205-99-2	Benzo(b)fluoranthene		130	U
207-08-9	Benzo(k)fluoranthene		130	U
50-32-8	Benzo(a)pyrene		130	U
53-70-3	Dibenz(a,h)anthracene		130	U
193-39-5	Indeno(1,2,3-cd)pyrene		130	U
191-24-2	Benzo(g,h,i)perylene		130	U

U=not detected, D=diluted, E=over range (another data sheet is included), J=below limit, B=found in blank

New England Testing Laboratory, Inc.

FORM I SV-2

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: Z0408-08 Client Name: Sage Environmental
 Method: 8270 Lab Sample ID: BSS040813
 Matrix: (soil/water/air) SOIL Lab File ID: B040804.D
 Sample wt/vol: 20 (g/ml) G Date Sampled: 4/5/2013
 Level: (low/med) LOW Date Extracted: 4/8/2013
 % Moisture: 0 Date Analyzed: 4/8/2013
 Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0
 Injection Volume: 1.0 (uL)
 Analyst's Initials: JD

CAS NO.	COMPOUND	UNITS:	UG/KG	Q
62-75-9	n-Nitrosodimethylamine		150	U
110-86-1	Pyridine		100	U
108-95-2	Phenol		100	U
62-53-3	Aniline		100	U
111-44-4	bis(2-Chloroethyl)ether		100	U
95-57-8	2-Chlorophenol		100	U
541-73-1	1,3-Dichlorobenzene		100	U
106-46-7	1,4-Dichlorobenzene		100	U
95-50-1	1,2-Dichlorobenzene		100	U
95-48-7	2-Methylphenol		100	U
108-60-1	bis(2-chloroisopropyl)ether		100	U
106-44-5	3- & 4-Methylphenol		200	U
621-64-7	n-Nitroso-di-n-propylamine		100	U
67-72-1	Hexachloroethane		100	U
98-95-3	Nitrobenzene		100	U
78-59-1	Isophorone		100	U
88-75-5	2-Nitrophenol		250	U
105-67-9	2,4-Dimethylphenol		500	U
65-85-0	Benzoic acid		750	U
111-91-1	bis(2-Chloroethoxy)methane		100	U
120-83-2	2,4-Dichlorophenol		250	U
120-82-1	1,2,4-Trichlorobenzene		100	U
91-20-3	Naphthalene		100	U
106-47-8	4-Chloroaniline		100	U
87-68-3	Hexachlorobutadiene		100	U
59-50-7	4-Chloro-3-methylphenol		250	U
91-57-6	2-Methylnaphthalene		100	U
77-47-4	Hexachlorocyclopentadiene		100	U
88-06-2	2,4,6-Trichlorophenol		100	U
95-95-4	2,4,5-Trichlorophenol		100	U
91-58-7	2-Chloronaphthalene		100	U
88-74-4	2-Nitroaniline		100	U
131-11-3	Dimethyl phthalate		100	U
208-96-8	Acenaphthylene		100	U
606-20-2	2,6-Dinitrotoluene		100	U

U=not detected, D=diluted, E=over range (another data sheet is included), J=below limit, B=found in blank

New England Testing Laboratory, Inc.

FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: Z0408-08 Client Name: Sage Environmental
 Method: 8270 Lab Sample ID: BSS040813
 Matrix: (soil/water/air) SOIL Lab File ID: B040804.D
 Sample wt/vol: 20 (g/ml) G Date Sampled: 4/5/2013
 Level: (low/med) LOW Date Extracted: 4/8/2013
 % Moisture: 0 Date Analyzed: 4/8/2013
 Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0
 Injection Volume: 1.0 (uL)
 Analyst's Initials: JD

CAS NO.	COMPOUND	UNITS:	UG/KG	Q
99-09-2	3-Nitroaniline		100	U
83-32-9	Acenaphthene		100	U
51-28-5	2,4-Dinitrophenol		250	U
100-02-7	4-Nitrophenol		250	U
132-64-9	Dibenzofuran		100	U
121-14-2	2,4-Dinitrotoluene		100	U
84-66-2	Diethyl phthalate		100	U
86-73-7	Fluorene		100	U
7005-72-3	4-Chlorophenyl phenyl ether		100	U
100-01-6	4-Nitroaniline		100	U
534-52-1	4,6-Dinitro-2-methylphenol		250	U
86-30-6	n-Nitrosodiphenylamine		100	U
101-55-3	4-Bromophenyl phenyl ether		100	U
118-74-1	Hexachlorobenzene		100	U
87-86-5	Pentachlorophenol		250	U
85-01-8	Phenanthrene		100	U
120-12-7	Anthracene		100	U
84-74-2	Di-n-butylphthalate		150	U
206-44-0	Fluoranthene		100	U
92-87-5	Benzidine		3000	U
129-00-0	Pyrene		100	U
85-68-7	Butyl benzyl phthalate		100	U
91-94-1	3,3'-Dichlorobenzidine		250	U
56-55-3	Benzo(a)anthracene		100	U
218-01-9	Chrysene		100	U
117-81-7	bis(2-Ethylhexyl)phthalate		150	U
117-84-0	Di-n-octyl phthalate		150	U
205-99-2	Benzo(b)fluoranthene		100	U
207-08-9	Benzo(k)fluoranthene		100	U
50-32-8	Benzo(a)pyrene		100	U
53-70-3	Dibenz(a,h)anthracene		100	U
193-39-5	Indeno(1,2,3-cd)pyrene		100	U
191-24-2	Benzo(g,h,i)perylene		100	U

U=not detected, D=diluted, E=over range (another data sheet is included), J=below limit, B=found in blank

New England Testing Laboratory, Inc.

FORM I SV-2

2D

SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name: New England Testing Laboratory Case No.: Z0408-08
 Lab Code: RI010 Client Name: Sage Environmental
 Level: (low/med) LOW

	Sample ID	S1 #	S2 #	S3 #	S4 #	S5 #	S6 #	TOT OUT
01	HUMIC	31	34	42	44	36*	41	1
02	BSS040813	88	90	105	101	105	100	0
03	LSS040813	90	92	103	99	117	106	0

QC LIMITS

S1	=	2-Fluorophenol	(27-130)
S2	=	Phenol-d6	(30-130)
S3	=	Nitrobenzene-d5	(35-130)
S4	=	2-Fluorobiphenyl	(36-130)
S5	=	2,4,6-Tribromophenol	(43-130)
S6	=	Terphenyl-d14	(30-130)

Column to be used to flag recovery values
 * Values outside of contract required QC limits
 D Surrogate diluted out

New England Testing Laboratory, Inc.

Semivolatile Soil Laboratory Control Spike

Date Extracted: 4/8/2013

Date Analyzed: 4/8/2013

	Amount Spiked	Result,	Recovery	Lower Recovery	Upper Recovery
	ug/Kg	ug/Kg	%	Limit	Limit
n-Nitrosodimethylamine	2500	2126	85	18	100
Phenol	2500	1738	70	29	104
Aniline	2500	1207	48	19	101
bis(2-Chloroethyl)ether	2500	1974	79	20	99
2-Chlorophenol	2500	1866	75	29	96
1,3-Dichlorobenzene	2500	1781	71	22	89
1,4-Dichlorobenzene	2500	1814	73	23	89
1,2-Dichlorobenzene	2500	1838	74	34	108
2-Methylphenol	2500	2007	80	33	107
3- & 4-Methylphenol	2500	1930	77	35	103
n-Nitroso-di-n-propylamine	2500	2091	84	34	109
Hexachloroethane	2500	1786	71	20	89
Nitrobenzene	2500	1905	76	26	96
Isophorone	2500	2003	80	31	101
2-Nitrophenol	2500	2088	84	27	103
2,4-Dimethylphenol	2500	1876	75	34	109
bis(2-Chloroethoxy)methane	2500	2170	87	28	107
2,4-Dichlorophenol	2500	1924	77	30	105
1,2,4-Trichlorobenzene	2500	1831	73	23	99
Naphthalene	2500	1984	79	27	100
4-Chloroaniline	2500	1374	55	15	118
Hexachlorobutadiene	2500	2146	86	25	109
4-Chloro-3-methylphenol	2500	2132	85	28	106
2-Methylnaphthalene	2500	1766	71	28	100
2,4,6-Trichlorophenol	2500	2057	82	35	116
2,4,5-Trichlorophenol	2500	2172	87	27	114
2-Chloronaphthalene	2500	1951	78	31	107
2-Nitroaniline	2500	2544	102	35	112
Dimethyl phthalate	2500	1980	79	31	109
Acenaphthylene	2500	1890	76	35	109
2,6-Dinitrotoluene	2500	2364	95	32	118
Acenaphthene	2500	1865	75	32	108
4-Nitrophenol	2500	2028	81	15	111
Dibenzofuran	2500	1858	74	32	111
2,4-Dinitrotoluene	2500	2126	85	30	118
Diethyl phthalate	2500	2050	82	28	108
Fluorene	2500	1839	74	31	116

Semivolatile Soil Laboratory Control Spike

Date Extracted: 4/8/2013

Date Analyzed: 4/8/2013

	Amount Spiked	Result,	Recovery	Lower Recovery	Upper Recovery
	ug/Kg	ug/Kg	%	Limit	Limit
4-Chlorophenyl phenyl ether	2500	1880	75	30	109
n-Nitrosodiphenylamine	2500	2591	104	41	150
4-Bromophenyl phenyl ether	2500	2128	85	30	106
Hexachlorobenzene	2500	2207	88	37	119
Pentachlorophenol	2500	2583	103	30	130
Phenanthrene	2500	1978	79	41	118
Anthracene	2500	1903	76	30	119
Di-n-butylphthalate	2500	2077	83	28	122
Fluoranthene	2500	2197	88	35	120
Pyrene	2500	2364	95	46	112
Butyl benzyl phthalate	2500	2721	109	25	127
Benzo(a)anthracene	2500	2167	87	45	114
Chrysene	2500	2052	82	33	123
bis(2-Ethylhexyl)phthalate	2500	2817	113	34	133
Di-n-octyl phthalate	2500	2355	94	16	144
Benzo(b)fluoranthene	2500	2043	82	33	122
Benzo(k)fluoranthene	2500	1929	77	34	130
Benzo(a)pyrene	2500	1923	77	37	115
Indeno(1,2,3-cd)pyrene	2500	1927	77	27	143
Dibenz(a,h)anthracene	2500	1860	74	33	137
Benzo(g,h,i)perylene	2500	1827	73	16	152

RESULTS: VOLATILE ORGANIC COMPOUNDS

The presence of the NETLAB LOGO in the top right corner of each page in this section indicates:

The Technical Manager of the Organics Analysis Department certifies that the samples included in this section have been prepared and analyzed using the procedures cited and that the results have been reviewed and approved. Any exceptions or qualifications of substance have been reported in the case narrative.

VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: Z0408-08 Client Name: Sage Environmental
 Method: 8260 Lab Sample ID: Humic
 Matrix: (soil/water) SOIL Lab File ID: C040807.D
 Sample wt/vol: 4.8 (g/ml) G Date Sampled: 4/5/2013
 % Moisture 21.39 Date Analyzed: 4/8/2013
 Soil Extract Volume: _____ (uL) Dilution Factor: 1.0
 Analyst's Initials: AM Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	UNITS: <u>UG/KG</u>	Q
75-01-4	Vinyl Chloride	130	U
74-83-9	Bromomethane	130	U
75-00-3	Chloroethane	130	U
67-64-1	Acetone	660	U
75-35-4	1,1-Dichloroethene	130	U
75-15-0	Carbon Disulfide	130	U
75-09-2	Methylene Chloride	130	U
1634-04-4	tert-Butyl methyl ether	130	U
156-60-5	trans-1,2 Dichloroethene	130	U
75-34-3	1,1-Dichloroethane	130	U
78-93-3	2-Butanone	660	U
594-20-7	2,2-Dichloropropane	130	U
156-59-2	cis-1,2-Dichloroethene	130	U
67-66-3	Chloroform	130	U
74-97-5	Bromochloromethane	130	U
71-55-6	1,1,1-Trichloroethane	130	U
563-58-6	1,1-Dichloropropene	130	U
56-23-5	Carbon Tetrachloride	130	U
71-43-2	Benzene	130	U
107-06-2	1,2-Dichloroethane	130	U
79-01-6	Trichloroethene	130	U
78-87-5	1,2-Dichloropropane	130	U
75-27-4	Bromodichloromethane	130	U
74-95-3	Dibromomethane	130	U
108-10-1	4-Methyl-2-pentanone	660	U
106-93-4	Ethylene Dibromide	130	U
10061-01-5	cis-1,3-Dichloropropene	130	U
10061-02-6	Trans-1,3-Dichloropropene	130	U
108-88-3	Toluene	130	U
79-00-5	1,1,2-Trichloroethane	130	U
591-78-6	2-Hexanone	660	U
127-18-4	Tetrachloroethene	130	U
124-48-1	Chlorodibromomethane	130	U
108-90-7	Chlorobenzene	130	U
630-20-6	1,1,1,2-Tetrachloroethane	130	U

U=not detected, D=diluted, E=over range (another data sheet is included), J=below limit, B=found in blank

New England Testing Laboratory, Inc.

VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: Z0408-08 Client Name: Sage Environmental
 Method: 8260 Lab Sample ID: Humic
 Matrix: (soil/water) SOIL Lab File ID: C040807.D
 Sample wt/vol: 4.8 (g/ml) G Date Sampled: 4/5/2013
 % Moisture 21.39 Date Analyzed: 4/8/2013
 Soil Extract Volume: _____ (uL) Dilution Factor: 1.0
 Analyst's Initials: AM Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	UNITS: <u>UG/KG</u>	Q
100-41-4	Ethylbenzene	130	U
1330-20-7	m & p-Xylene	260	U
95-47-6	o-Xylene	130	U
100-42-5	Styrene	130	U
75-25-2	Bromoform	130	U
98-82-8	Isopropylbenzene	130	U
79-34-5	1,1,2,2-Tetrachloroethane	130	U
108-86-1	Bromobenzene	130	U
96-18-4	1,2,3-Trichloropropane	130	U
95-49-8	2-Chlorotoluene	130	U
103-65-1	n-Propylbenzene	130	U
108-67-8	1,3,5-Trimethylbenzene	130	U
106-43-4	4-Chlorotoluene	130	U
98-06-6	tert-Butylbenzene	130	U
95-63-6	1,2,4-Trimethylbenzene	130	U
135-98-8	sec-Butylbenzene	130	U
99-87-6	p-Isopropyltoluene	130	U
74-87-3	Chloromethane	130	U
75-65-0	tert butyl alcohol	130	U
541-73-1	1,3-Dichlorobenzene	130	U
109-99-9	Tetrahydrofuran	130	U
106-46-7	1,4-Dichlorobenzene	130	U
60-29-7	Diethyl Ether	130	U
104-51-8	n-Butylbenzene	130	U
95-50-1	1,2-Dichlorobenzene	130	U
96-12-8	1,2-Dibromo-3-chloropropane	130	U
120-82-1	1,2,4-Trichlorobenzene	130	U
87-68-3	Hexachlorobutadiene	130	U
91-20-3	Naphthalene	130	U
87-61-6	1,2,3-Trichlorobenzene	130	U
994-05-8	Tert-amyl Methyl Ether	130	U
75-71-8	Dichlorodifluoromethane	130	U
142-28-9	1,3-Dichloropropane	130	U
75-69-4	Trichlorofluoromethane	130	U
637-92-3	Ethyl Tert-butyl ether	130	U

U=not detected, D=diluted, E=over range (another data sheet is included), J=below limit, B=found in blank

New England Testing Laboratory, Inc.

VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: Z0408-08 Client Name: Sage Environmental
 Method: 8260 Lab Sample ID: Humic
 Matrix: (soil/water) SOIL Lab File ID: C040807.D
 Sample wt/vol: 4.8 (g/ml) G Date Sampled: 4/5/2013
 % Moisture 21.39 Date Analyzed: 4/8/2013
 Soil Extract Volume: _____ (uL) Dilution Factor: 1.0
 Analyst's Initials: AM Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	UNITS: <u>UG/KG</u>	Q
108-20-3	Diisopropyl Ether	130	U
123-91-1	1,4-Dioxane	33000	U

U=not detected, D=diluted, E=over range (another data sheet is included), J=below limit, B=found in blank

New England Testing Laboratory, Inc.

VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: Z0408-08 Client Name: Sage Environmental
 Method: 8260 Lab Sample ID: VBLK040813
 Matrix: (soil/water) SOIL Lab File ID: C040806.D
 Sample wt/vol: 10.0 (g/ml) G Date Sampled: 4/8/2013
 % Moisture 0 Date Analyzed: 4/8/2013
 Soil Extract Volume: _____ (uL) Dilution Factor: 1.0
 Analyst's Initials: AM Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	UNITS: <u>UG/KG</u>	Q
75-01-4	Vinyl Chloride	50	U
74-83-9	Bromomethane	50	U
75-00-3	Chloroethane	50	U
67-64-1	Acetone	250	U
75-35-4	1,1-Dichloroethene	50	U
75-15-0	Carbon Disulfide	50	U
75-09-2	Methylene Chloride	50	U
1634-04-4	tert-Butyl methyl ether	50	U
156-60-5	trans-1,2 Dichloroethene	50	U
75-34-3	1,1-Dichloroethane	50	U
78-93-3	2-Butanone	250	U
594-20-7	2,2-Dichloropropane	50	U
156-59-2	cis-1,2-Dichloroethene	50	U
67-66-3	Chloroform	50	U
74-97-5	Bromochloromethane	50	U
71-55-6	1,1,1-Trichloroethane	50	U
563-58-6	1,1-Dichloropropene	50	U
56-23-5	Carbon Tetrachloride	50	U
71-43-2	Benzene	50	U
107-06-2	1,2-Dichloroethane	50	U
79-01-6	Trichloroethene	50	U
78-87-5	1,2-Dichloropropane	50	U
75-27-4	Bromodichloromethane	50	U
74-95-3	Dibromomethane	50	U
108-10-1	4-Methyl-2-pentanone	250	U
106-93-4	Ethylene Dibromide	50	U
10061-01-5	cis-1,3-Dichloropropene	50	U
10061-02-6	Trans-1,3-Dichloropropene	50	U
108-88-3	Toluene	50	U
79-00-5	1,1,2-Trichloroethane	50	U
591-78-6	2-Hexanone	250	U
127-18-4	Tetrachloroethene	50	U
124-48-1	Chlorodibromomethane	50	U
108-90-7	Chlorobenzene	50	U
630-20-6	1,1,1,2-Tetrachloroethane	50	U

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New England Testing Laboratory, Inc.

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Case No.: Z0408-08 Client Name: Sage Environmental
 Method: 8260 Lab Sample ID: VBLK040813
 Matrix: (soil/water) SOIL Lab File ID: C040806.D
 Sample wt/vol: 10.0 (g/ml) G Date Sampled: 4/8/2013
 % Moisture 0 Date Analyzed: 4/8/2013
 Soil Extract Volume: _____ (uL) Dilution Factor: 1.0
 Analyst's Initials: AM Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	UNITS: <u>UG/KG</u>	Q
100-41-4	Ethylbenzene	50	U
1330-20-7	m & p-Xylene	100	U
95-47-6	o-Xylene	50	U
100-42-5	Styrene	50	U
75-25-2	Bromoform	50	U
98-82-8	Isopropylbenzene	50	U
79-34-5	1,1,2,2-Tetrachloroethane	50	U
108-86-1	Bromobenzene	50	U
96-18-4	1,2,3-Trichloropropane	50	U
95-49-8	2-Chlorotoluene	50	U
103-65-1	n-Propylbenzene	50	U
108-67-8	1,3,5-Trimethylbenzene	50	U
106-43-4	4-Chlorotoluene	50	U
98-06-6	tert-Butylbenzene	50	U
95-63-6	1,2,4-Trimethylbenzene	50	U
135-98-8	sec-Butylbenzene	50	U
99-87-6	p-Isopropyltoluene	50	U
74-87-3	Chloromethane	50	U
75-65-0	tert butyl alcohol	50	U
541-73-1	1,3-Dichlorobenzene	50	U
109-99-9	Tetrahydrofuran	50	U
106-46-7	1,4-Dichlorobenzene	50	U
60-29-7	Diethyl Ether	50	U
104-51-8	n-Butylbenzene	50	U
95-50-1	1,2-Dichlorobenzene	50	U
96-12-8	1,2-Dibromo-3-chloropropane	50	U
120-82-1	1,2,4-Trichlorobenzene	50	U
87-68-3	Hexachlorobutadiene	50	U
91-20-3	Naphthalene	50	U
87-61-6	1,2,3-Trichlorobenzene	50	U
994-05-8	Tert-amyl Methyl Ether	50	U
75-71-8	Dichlorodifluoromethane	50	U
142-28-9	1,3-Dichloropropane	50	U
75-69-4	Trichlorofluoromethane	50	U
637-92-3	Ethyl Tert-butyl ether	50	U

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New England Testing Laboratory, Inc.

VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: Z0408-08 Client Name: Sage Environmental
 Method: 8260 Lab Sample ID: VBLK040813
 Matrix: (soil/water) SOIL Lab File ID: C040806.D
 Sample wt/vol: 10.0 (g/ml) G Date Sampled: 4/8/2013
 % Moisture 0 Date Analyzed: 4/8/2013
 Soil Extract Volume: _____ (uL) Dilution Factor: 1.0
 Analyst's Initials: AM Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	UNITS: <u>UG/KG</u>	Q
108-20-3	Diisopropyl Ether	50	U
123-91-1	1,4-Dioxane	12000	U

U=not detected, D=diluted, E=over range (another data sheet is included), J=below limit, B=found in blank

New England Testing Laboratory, Inc.

SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: New England Testing Laboratory Contract: Queen Anne Squ
 Lab Code: RI010 Case No.: Z0408-08 SAS No.: Sage E SDG No.: Sage Envi
 Level: (low/med) MED

	EPA SAMPLE NO.	SMC1 #	SMC2 #	SMC3 #	TOT OUT
01	VLCS040813	96	103	105	0
02	VBLK040813	94	103	109	0
03	HUMIC	90	100	106	0

QC LIMITS

SMC1 = 4-Bromofluorobenzene (70-130)
 SMC2 = Toluene-D8 (70-130)
 SMC3 = 1,2-Dichloroethane-D4 (70-130)

Column to be used to flag recovery values
 * Values outside of contract required QC limits
 D System Monitoring Compound diluted out

New England Testing Laboratory, Inc.

Volatile Organics Laboratory Control Spike

Date Analyzed: 04/08/2013

Sample ID: VLCS040813

Compound	Spike Added	Spike Result	Recovery, %	Lower Control Limit, %	Upper Control Limit, %
1,1-Dichloroethene	50.0	48.8	98	70	129
Benzene	50.0	51.1	102	73	129
Trichloroethene	50.0	46.0	92	77	122
Toluene	50.0	52.4	105	75	123
Chlorobenzene	50.0	50.9	102	73	125

