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CNC CHARLESTON
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UNDERGROUND STORAGE TANK (UST) ASSESSMENT REPORT FOR BUILDING 4 CNC
CHARLESTON SC
5/11/2001
ENVIRONMENTAL ENTERPRISE GROUP

South Carolina Department of Health and Environmental Control (S.C.D.H.E.C.)
Underground Storage Tank (UST) Assessment Report

Submit Completed Form to:

Date Received

State Use Only

UST Regulatory Section
SCDHEC
2600 Bull Street
Columbia, South Carolina 29201
Telephone (803) 734-5331

I OWNERSHIP OF UST(S)

Agency/Owner: Southern Division, Naval Facilities Engineering Command, Caretaker Site Office

Mailing Address: P.O. Box 190010

City: N. Charleston State: SC Zip Code: 29419-9010

Area Code: 843 Telephone Number: 743-9985 Contact Person: Matthew Humphrey

II SITE IDENTIFICATION AND LOCATION

Site I.D. #: Unregulated

Facility Name: Charleston Naval Base Complex, Building 4

Street Address: 2154 Avenue D

City: North Charleston, 29405 County: Charleston

III CLOSURE INFORMATION

Closure Started: 7 May 2001

Closure Completed: 11 May 2001

Number of USTs Closed: 1

N/A

Consultant

EEG, Inc.

UST Removal Contractor

IV. CERTIFICATION (Read and Sign after completing entire submittal)

I certify that I have personally examined and am familiar with the information submitted in this and all attached documents; and that based on my inquiry of those individuals responsible for obtaining this information, I believe that the submitted information is true, accurate and complete.

Matthew Humphrey

Name (Type or Print)

Matthew Humphrey

Signature

V. UST INFORMATION

- A. Product.....
- B. Capacity.....
- C. Age.....
- D. Construction Material.....
- E. Month/Year of Last Use.....
- F. Depth (ft.) To Base of Tank.....
- G. Spill Prevention Equipment Y/N.....
- H.. Overfill Prevention Equipment Y/N.....
- I. Method of Closure Removed/Filled.....
- J. Date Tanks Removed/Filled.....
- K. Visible Corrosion or Pitting Y/N.....
- L. Visible Holes Y/N.....

	Tank 1	Tank 2	Tank 3	Tank 4	Tank 5
Diesel					
165 gal					
Unk					
S					
Unk					
4.5'					
N					
N					
F					
5/10/01					
N					

M. Method of disposal for any USTs removed from the ground (attach disposal manifests)

N/A

N. Method of disposal for any liquid petroleum, sludges, or waste waters removed from the USTs (attach disposal manifests)

The fuel and rinse water were recycled. No sludge existed.

O. If any corrosion, pitting, or holes were observed, describe the location and extent for each UST

No corrosion, pitting or holes were found.

VI. PIPING INFORMATION

- A. Construction Material.....
- B. Distance from UST to Dispenser.....
- C. Number of Dispensers.....
- D. Type of System P/S.....
- E. Was Piping Removed from the Ground? Y/N....
- F. Visible Corrosion or Pitting Y/N.....
- G. Visible Holes Y/N.....
- H. Age.....

	Tank 1	Tank 2	Tank 3	Tank 4	Tank 5
Copper & steel					
12'					
1					
S					
See note					
N					
N					
Unk.					

- I. If any corrosion, pitting, or holes were observed, describe the location and extent for each line.

No corrosion, pitting or holes were observed.

VII. BRIEF SITE DESCRIPTION AND HISTORY

Building 4 was constructed in 1918. The building was used for various purposes, but primarily as a warehouse. Most recently it was used as office space. The date the emergency generating system was installed is unknown.

Note 1:

The portions of the vent line in the excavation and above the ground were removed. The fill line was removed. The supply and return piping was disconnected from UST 4 and the day tank and flushed; the portions within the excavation were removed. The supply and return piping between the day tank and generator and the day tank were removed.

VIII. SITE CONDITIONS

Yes No Unk

		Yes	No	Unk
A.	<p>Were any petroleum-stained or contaminated soils found in the UST excavation, soil borings, trenches, or monitoring wells?</p> <p>If yes, indicate depth and location on the site map.</p>		X	
B.	<p>Were any petroleum odors detected in the excavation, soil borings, trenches, or monitoring wells?</p> <p>If yes, indicate location on site map and describe the odor (strong, mild, etc.)</p>		X	
C.	<p>Was water present in the UST excavation, soil borings, or trenches?</p> <p>If yes, how far below land surface (indicate location and depth)?</p> <p>_____</p>	X		
D.	<p>Did contaminated soils remain stockpiled on site after closure?</p> <p>If yes, indicate the stockpile location on the site map.</p> <p>Name of DHEC representative authorizing soil removal:</p> <p>_____</p>		X	
E.	<p>Was a petroleum sheen or free product detected on any excavation or boring waters?</p> <p>If yes, indicate location and thickness.</p>		X	

X. SAMPLING METHODOLOGY

Provide a detailed description of the methods used to collect and store (preserve) the samples.

Sampling was performed in accordance with SC DHEC R.61-92 Part 280 and SC DHEC UST Assessment Guidelines.

Sample jars were prepared by the testing laboratory. The grab method was utilized to fill the sample containers leaving as little head space as possible and immediately capped. Soil samples were extracted at the tank ends. Samples for volatiles were taken using the Encore sampler and T-handle.

The samples were marked, logged, and immediately placed in sample coolers packed with ice to maintain an approximate temperature of 4° C. Tools were thoroughly cleaned and decontaminated with organic-free soap and water after each sample.

The samples remained in the custody of EEG, Inc. until they were transferred to General Engineering Laboratories for analysis as documented in the attached Chain-of-Custody Record.

XI. RECEPTORS

Yes No

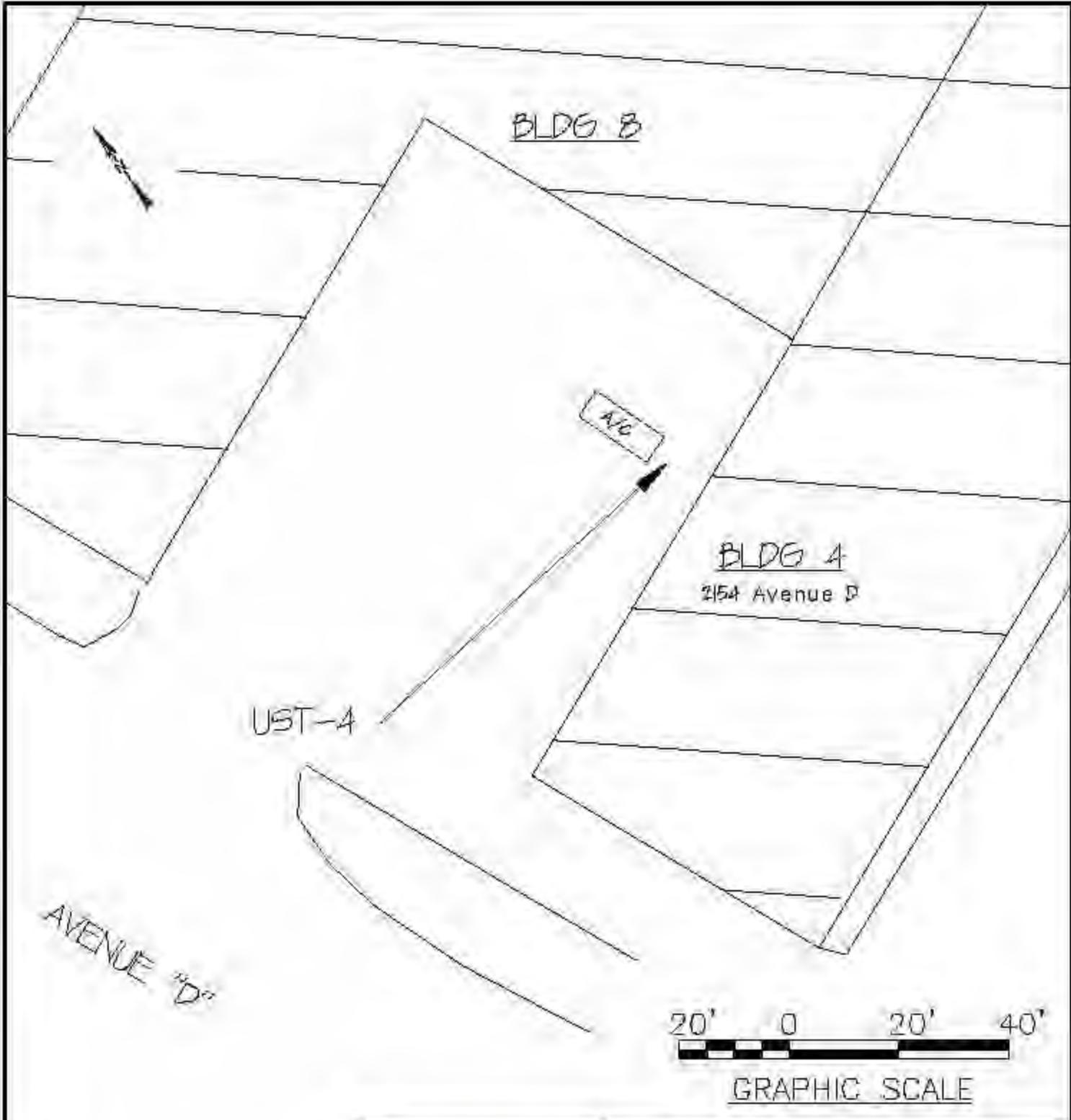
A.	Are there any lakes, ponds, streams, or wetlands located within 1000 feet of the UST system?		X
If yes, indicate type of receptor, distance, and direction on site map.			
B.	Are there any public, private, or irrigation water supply wells within 1000 feet of the UST system?		X
If yes, indicate type of well, distance, and direction on site map.			
C.	Are there any underground structures (e.g., basements) located within 100 feet of the UST system?	X	
If yes, indicate the type of structure, distance, and direction on site map.			
[Bldgs 4 & 8 have basements]			
D.	Are there any underground utilities (e.g., telephone, electricity, gas, water, sewer, storm drain) located within 100 feet of the UST system that could potentially come in contact with the contamination?	X	
If yes, indicate the type of utility, distance, and direction on the site map.			
[Site crisscrossed with electrical distribution lines]			
E.	Has contaminated soil been identified at a depth of less than 3 feet below land surface in an area that is not capped by asphalt or concrete?		X
If yes, indicate the area of contaminated soil on the site map.			

Attachment I

SITE MAP

You must supply a scaled site map. It should include all buildings, road names, utilities, tank and dispenser island locations, labeled sample locations, extent of excavation, and any other pertinent information.

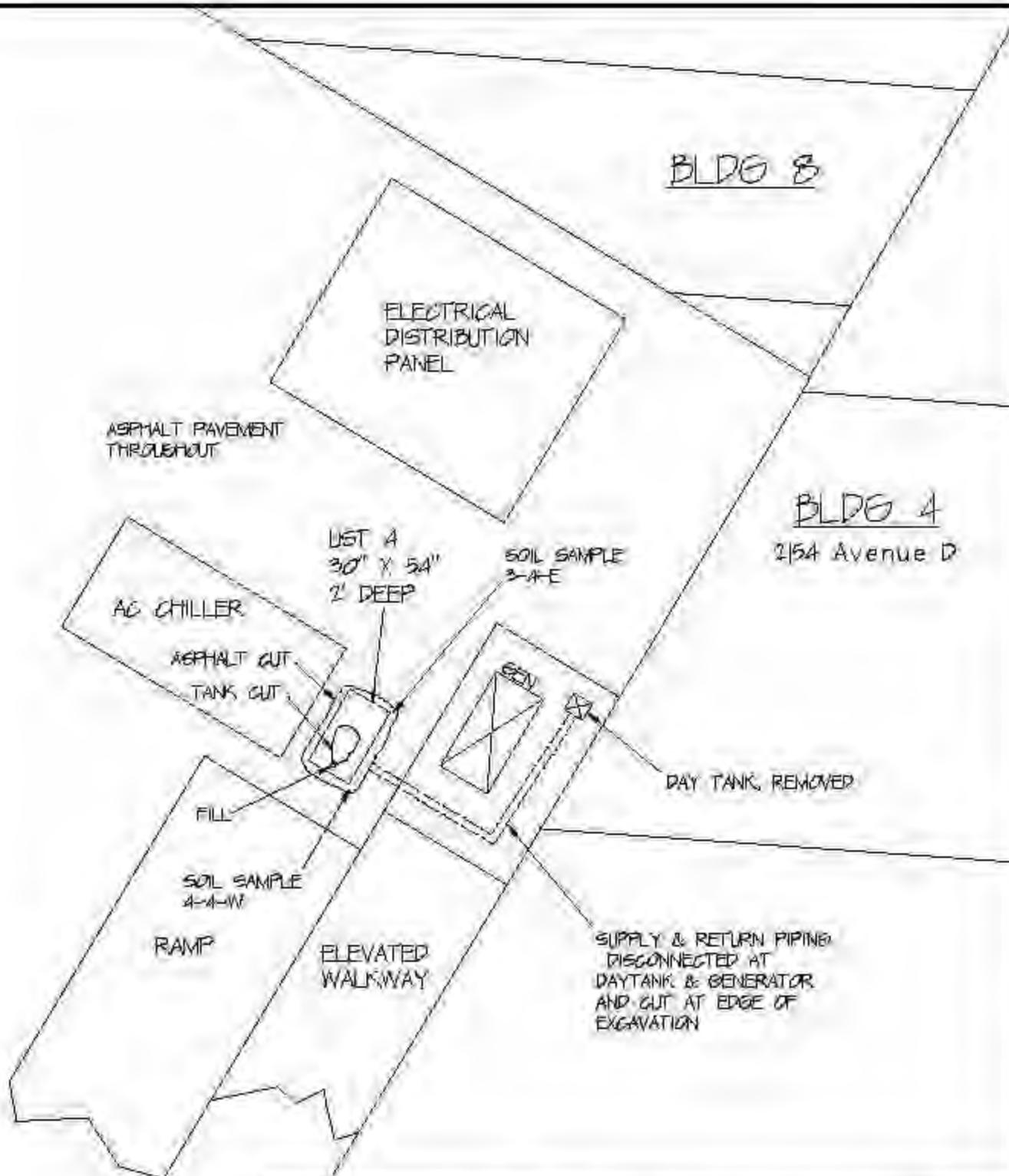
Site Maps 1 and 2
Photographs A, B, C, and D



Environmental Enterprise Group, Inc.
 1949 Avenue D
 N. Charleston, SC 29405
 Ph. 843.202.6082

Site Map 1
 UST 4
 Charleston Naval Base
 Charleston, SC

DWG DATE: 14 JUN 2001 | DWG NAME: ust-4_1



Environmental Enterprise Group, Inc.
1948 Avenue D
N. Charleston, SC 29405
Ph. 843.202.6052

Site Map 2
UST4
Charleston Naval Base
Charleston, SC

DWG DATE: 14 JUN 2001 DWG NAME: ust-4_2



Photo A – UST 4 site (looking west) prior to commencing work.



Photo B – UST 4 after opening cut in the top and the fill line cut.



Photo C – Tank cleaned and filled in place with sand.



Photo D – Site work completed.

Attachment II
ANALYTICAL RESULTS

You must submit the laboratory report and chain-of-custody form for the samples. These samples must be analyzed by a South Carolina certified laboratory.

Certified Analytical Results
Chain-of-Custody



GENERAL ENGINEERING LABORATORIES

Meeting today's needs with a vision for tomorrow.

Certificate of Analysis

Company : EEG, Inc.
 Address : 1649 Avenue D
 Charleston, SC 29405

Contact: Copes Wanamaker
 Project: Routine Analytical - Wanamaker

Report Date: May 17, 2001

Page 1 of 2

Client Sample ID: 3-4-E
 Sample ID: 42147003
 Matrix: Soil
 Collect Date: 11-MAY-01
 Receive Date: 11-MAY-01
 Collector: Client
 Moisture: 10%

Project: EEGI00201
 Client ID: EEGI001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Semi-Volatiles-GC/MS											
<i>3550/8270 PAH STD LIST IN SOIL</i>											
Acenaphthene	J	22.6	4.45	37.0	ug/kg	1	KGB1	05/15/01	1320	77819	1
Acenaphthylene	U	ND	4.08	37.0	ug/kg	1					
Anthracene		65.8	5.19	37.0	ug/kg	1					
Benzo(a)anthracene		296	6.67	37.0	ug/kg	1					
Benzo(a)pyrene		375	2.22	37.0	ug/kg	1					
Benzo(b)fluoranthene		680	2.59	37.0	ug/kg	1					
Benzo(ghi)perylene		191	5.56	37.0	ug/kg	1					
Benzo(k)fluoranthene	U	ND	5.56	37.0	ug/kg	1					
Chrysene		339	7.04	37.0	ug/kg	1					
Dibenzo(a,h)anthracene	U	ND	2.96	37.0	ug/kg	1					
Fluoranthene		594	3.70	37.0	ug/kg	1					
Fluorene	U	ND	3.33	37.0	ug/kg	1					
Indeno(1,2,3-cd)pyrene		179	7.41	37.0	ug/kg	1					
Phenanthrene		293	4.45	37.0	ug/kg	1					
Pyrene		402	9.63	37.0	ug/kg	1					
Volatile Organics											
<i>5035/8260B BTEX Extended List</i>											
Benzene	U	ND	0.395	2.03	ug/kg	1	TLW	05/11/01	1406	77385	2
Ethylbenzene	U	ND	0.355	2.03	ug/kg	1					
Naphthalene		4.28	0.294	1.01	ug/kg	1					
Toluene	J	0.588	0.507	2.03	ug/kg	1					
Xylenes (total)		3.35	1.06	3.04	ug/kg	1					
tert-Butyl methyl ether	U	ND	2.31	2.03	ug/kg	1					

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3550B	3550B BNA Soil Prep-8270C Analysis	JMA	05/14/01	1830	77731
SW846 5035	5030/8260A and 5035/8260B Prep	TLW	05/11/01	1135	77455

The following Analytical Methods were performed

Method	Description
1	SW846 8270C
2	SW846 8260B

Surrogate recovery	Test	Recovery%	Acceptable Limits
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P O Box 30712 • Charleston, SC 29417 • 2040 Savage Road • 29407

(843) 556-8171 • Fax (843) 766-1178



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Page 2 of 2

Client Sample ID: 3-4-E
Sample ID: 42147003

Project: EEGI00201
Client ID: EEGI001

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
2-Fluorobiphenyl	3550/8270	PAH STD LIST IN SOIL		78%		(42%-108%)				
Nitrobenzene-d5	3550/8270	PAH STD LIST IN SOIL		73%		(39%-107%)				
p-Terphenyl-d14	3550/8270	PAH STD LIST IN SOIL		84%		(46%-128%)				
Bromofluorobenzene	5035/8260B	BTEX Extended List		104%		(61%-146%)				
Dibromofluoromethane	5035/8260B	BTEX Extended List		95%		(54%-144%)				
Toluene-d8	5035/8260B	BTEX Extended List		95%		(61%-131%)				

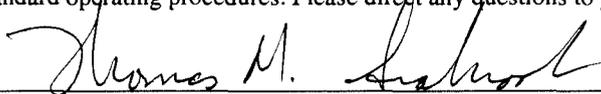
Notes:

The Qualifiers in this report are defined as follows :

- ** Indicates the analyte is a surrogate compound.
- < Actual result is less than amount reported
- > Actual result is greater than amount reported
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the compound was analyzed for but not detected above the detection limit

The above sample is reported on a dry weight basis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, Inc. standard operating procedures. Please direct any questions to your Project Manager, Tom Seabrook at 843-556-8171 Ext. 4479.



Reviewed by



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Contact: Copes Wanamaker
 Project: Routine Analytical - Wanamaker

Report Date: May 17, 2001

Page 1 of 2

Client Sample ID: 4-4-W
 Sample ID: 42147004
 Matrix: Soil
 Collect Date: 11-MAY-01
 Receive Date: 11-MAY-01
 Collector: Client
 Moisture: 9.65%

Project: EEGI00201
 Client ID: EEGI001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Semi-Volatiles-GC/MS											
<i>3550/8270 PAH STD LIST IN SOIL</i>											
Acenaphthene	J	31.8	4.43	36.9	ug/kg	1	KGB1	05/15/01	1342	77819	1
Acenaphthylene	J	14.0	4.06	36.9	ug/kg	1					
Anthracene		86.7	5.17	36.9	ug/kg	1					
Benzo(a)anthracene		229	6.64	36.9	ug/kg	1					
Benzo(a)pyrene		263	2.21	36.9	ug/kg	1					
Benzo(b)fluoranthene		451	2.58	36.9	ug/kg	1					
Benzo(ghi)perylene		122	5.53	36.9	ug/kg	1					
Benzo(k)fluoranthene	U	ND	5.53	36.9	ug/kg	1					
Chrysene		238	7.01	36.9	ug/kg	1					
Dibenzo(a,h)anthracene	U	ND	2.95	36.9	ug/kg	1					
Fluoranthene		437	3.69	36.9	ug/kg	1					
Fluorene	U	ND	3.32	36.9	ug/kg	1					
Indeno(1,2,3-cd)pyrene		109	7.38	36.9	ug/kg	1					
Phenanthrene		376	4.43	36.9	ug/kg	1					
Pyrene		302	9.59	36.9	ug/kg	1					
Volatile Organics											
<i>5035/8260B BTEX Extended List</i>											
Benzene	U	ND	0.475	2.44	ug/kg	1	TLW	05/11/01	1435	77385	2
Ethylbenzene	U	ND	0.427	2.44	ug/kg	1					
Naphthalene		10.5	0.353	1.22	ug/kg	1					
Toluene	U	ND	0.609	2.44	ug/kg	1					
Xylenes (total)	J	3.62	1.28	3.66	ug/kg	1					
tert-Butyl methyl ether	U	ND	2.78	2.44	ug/kg	1					

The following Prep Methods were performed

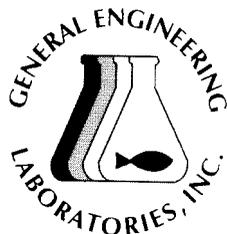
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Client ID: EEGI001

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
2-Fluorobiphenyl	3550/8270	PAH STD LIST IN SOIL		57%		(42%-108%)				
Nitrobenzene-d5	3550/8270	PAH STD LIST IN SOIL		53%		(39%-107%)				
p-Terphenyl-d14	3550/8270	PAH STD LIST IN SOIL		69%		(46%-128%)				
Bromofluorobenzene	5035/8260B	BTEX Extended List		106%		(61%-146%)				
Dibromofluoromethane	5035/8260B	BTEX Extended List		94%		(54%-144%)				
Toluene-d8	5035/8260B	BTEX Extended List		99%		(61%-131%)				

Notes:

The Qualifiers in this report are defined as follows :

- ** Indicates the analyte is a surrogate compound.
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Reviewed by



