CATLIN
Engineers and Scientists

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August 8, 2008

NAVFAC Mid-Atlantic
Marine Corps North Carolina IPT
Environmental Business Line
Code: OPNCEV 3MA
Attn: Mr. Melvin Acree
6506 Hampton Boulevard
Building C, Room 314
Norfolk, VA 23508-1278

Re: **UST Closure Report Addendum**
UST AS-4151-1
Marine Corps Base, Camp Lejeune, North Carolina
Navy Contract No. N62470-05-D-6200
Delivery Order No. 0016
CATLIN Project No. 205-077

Dear Mr. Acree:

This letter and the following attachments are provided as an addendum to the previously submitted *UST Closure Report for UST AS-4151-1* dated January 28, 2008.

Background

A 1,000-gallon waste #6 oil tank (USTAS-4151-1) was located near the northwest corner of Building AS-4151 until removal on May 20, 1991. CATLIN Engineers and Scientists personnel collected four soil samples around the approximate former tank location for laboratory analysis. A monitoring well was also installed and sampled by CATLIN adjacent to the approximate former tank location. This soil and groundwater sampling is documented in the *UST Closure Report for USTAS-4151-1 (UST Closure Report)* dated January 28, 2008. As detailed in *UST Closure Report,* minor diesel range organics (DRO) concentrations above the 10 milligrams per kilogram (mg/kg) State Action Level were revealed at two soil boring locations (USTAS4151-1-SB01 and USTAS4151-1-SB03). The site vicinity and site layout are illustrated on the attached Figure 1 and Figure 2, respectively.

Following review by the North Carolina Department of Environment and Natural Resources (NCDENR), Mr. Bruce Reed with the UST Section requested that an additional soil sample be collected for laboratory analysis adjacent to the previous (December 2007) USTAS4151-1-SB03 (2-3') soil sample. The previous soil sample results revealed 30.3 mg/kg total petroleum hydrocarbon (TPH) DRO, which is above the

10 mg/kg State Action Level. This letter documents the recent re-sampling and laboratory analysis.

Methods

Clean disposable nitrile gloves were used for boring advancement and soil sample collection. The soil sample USTAS4151-1-SB03A was collected by hand from the hand auger bucket and packed directly into new laboratory provided glassware. The hand auger was decontaminated with Liqui-Nox®, pesticide grade isopropyl alcohol, and rinsed with distilled water before boring advancement and prior to soil sample collection.

The soil sample was placed into the appropriate sample jars (provided by the laboratory) with Teflon® lid liners, labeled with the site location, date and time, initials of person collecting sample, sample identification number, and tests required. Samples were then placed on ice in a cooler and maintained at approximately 4° Celsius during storage and transport to the laboratory. A temperature blank was preserved in the cooler along with the site samples. A Chain of Custody form was maintained from the point of sampling until delivery to the laboratory.

Specific laboratory receipt dates and times are indicated on the attached Chain of Custody document.

Soil Sampling

A hand auger boring was advanced near the approximate former USTAS-4151-1 excavation sidewalls and adjacent to the December 2007 soil sample AS4151-1-SB03. One grab soil sample (USTAS4151-1-SB03A) was collected from the hand auger boring approximately two to three feet below land surface (BLS) and approximately one foot above the water table.

A mixture of sands and clays were encountered at the boring location. Complete boring lithological descriptions can be found on the attached boring log. The soil boring/sample location is illustrated on Figure 2.

The USTAS4151-1-SB03A soil sample was collected and submitted for TPH DRO laboratory analysis by Environmental Protection Agency (EPA) Method 8015. Additional soil material was submitted for "Risk-Based" analysis pending the TPH DRO results. The sample identifications and dates are provided on the attached Tables. Soil sample times and laboratory submittal information is included on the Chain of Custody document following the attached laboratory analytical report.

Laboratory analysis for TPH DRO per EPA Method 8015 revealed 32.3 mg/kg DRO (see Table 1). The USTAS4151-1-SB03A soil sample was subsequently analyzed per EPA Methods 8260 and 8270 and Massachusetts Department of Environmental Protection (MADEP) Extractable and Volatile Petroleum Hydrocarbons (EPH and VPH). The "Risk-Based" analysis (EPA 8260, 8270 and MADEP EPH and VPH) results are summarized on Tables 2, 3, 4, and 5, respectively. As indicated on Tables 2, 3, and 5, no

compound/contaminant concentrations were revealed above the lowest corresponding NCDENR Maximum Soil Contaminant Concentration (MSCC). The complete analytical report is attached. Summarized soils sample results are also provided on Figure 2.

Summary and Conclusion

The soil sample USTAS4151-1-SB03 collected in December 2007 revealed 30.3 mg/kg TPH DRO, which is above the NCDENR 10 mg/kg Action Level. The recently (June 30, 2008) collected soil sample USTAS4151-1-SB03A (adjacent to the December 2007 USTAS4151-1-SB03 soil sample) revealed similar TPH DRO concentrations (32.3 mg/kg). Subsequent "Risk-Based" analysis did not reveal any results above the lowest corresponding MSCC.

CATLIN recommends forwarding this letter and all attachments to the NCDENR Wilmington Regional Office with a request for Low Risk Classification and "No Further Action" status.

CATLIN appreciates the opportunity to continue to provide services to NAVFAC Mid-Atlantic and the MCB on your environmental projects. Please feel free to call us at 910-452-5861 with any questions or comments.

Sincerely,

Michael E. Mason, P.E.
Program Manager

Benjamin J. Ashba
Project Manager

Enclosure

cc: Ms. Susan Tsimpinos – NAVFAC Contracts (correspondence only)
Commanding Officer, Attn: Director I&E/EMD/EQB

AS4151-1USTAddendumLtr.doc

ATTACHMENTS

TABLES

TABLE 1
SUMMARY OF SOIL LABORATORY RESULTS
TOTAL PETROLEUM HYDROCARBON
DIESEL RANGE ORGANICS
EPA METHODS 8015

Incident Name: AS-4151-1
Incident Number: 32456

Sample ID	Contaminant of Concern →		Diesel Range Organics
	Date Collected	Sample Depth (ft. BLS)	
NCDENR Action Level (mg/kg)			10
USTAS4151-1-SB03A	6/30/2008	2 - 3	32.3

Note: Soil sample USTAS4151-1-SB03A collected adjacent to sample USTAS4151-1-SB03
ft. BLS = feet below land surface
All results in milligrams per kilogram (mg/kg).

TABLE 2
SUMMARY OF SOIL LABORATORY RESULTS
EPA METHOD 8260

Incident Name: AS-4151-1
Incident Number: 32456

Sample ID	Contaminant of Concern →		Acetone	2-Butanone	Carbon disulfide	All other 8260 Compounds
	Date Collected	Sample Depth (ft. BLS)				
Residential MSCC (mg/kg)			1,564	9,385	1,564	Varies
Industrial/Commercial MSCC (mg/kg)			40,880	245,280	40,880	Varies
Soil to Groundwater MSCC (mg/kg)			2.8	17	4.3	Varies
USTAS4151-1-SB03A	6/30/2008	2 - 3	0.0452 J	0.00633 J	0.00289 J	BMDL

All results in milligrams per kilogram (mg/kg).
ft. BLS = Feet Below Land Surface
BMDL = Below Method Detection Limit
MSCC = Maximum Soil Contaminant Concentration
J = Estimated concentration, below calibration range and above method detection limit

TABLE 3
SUMMARY OF SOIL LABORATORY RESULTS
EPA METHOD 8270

Incident Name: AS-4151-1
Incident Number: 32456

Sample ID	Contaminant of Concern →		Acenaphthene	Chrysene	Dibenzofuran	Fluoranthene	Pyrene	All other 8270 Compounds
	Date Collected	Sample Depth (ft. BLS)						
Residential MSCC (mg/kg)			940	88	62	620	469	Varies
Industrial/Commercial MSCC (mg/kg)			24,000	780	1,635	16,400	12,264	Varies
Soil to Groundwater MSCC (mg/kg)			8.2	38	4.7	280	290	Varies
USTAS4151-1-SB03A	6/30/2008	2 - 3	0.446	0.053 J	0.290 J	0.225 J	0.156 J	BMDL

All results in milligrams per kilogram (mg/kg).
BMDL = Below Method Detection Limit
ft. BLS = Feet Below Land Surface
J = Estimated concentration, below calibration range and above method detection limit
MSCC = Maximum Soil Contaminant Concentration

TABLE 4
SUMMARY OF SOIL LABORATORY RESULTS
EPA METHOD MADEP EPH AND VPH

Incident Name: AS-4151-1
Incident Number: 32456

Sample ID	Contaminant of Concern →		C9-C18 Aliphatics	C19-C36 Aliphatics	C11-C22 Aromatics	C5-C8 Aliphatics	C9-C12 Aliphatics	C9-C10 Aromatics
	Date Collected	Sample Depth (ft. BLS)						
USTAS4151-1-SB03A	6/30/2008	2 - 3	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0

All results in milligrams per kilogram (mg/kg).
ft. BLS = Feet Below Land Surface
< = Less than method detection limit

TABLE 5
SUMMARY OF SOIL LABORATORY RESULTS
EPA METHOD MADEP EPH AND VPH
AS COMPARED TO THE MSCCs

Incident Name: AS-4151-1
Incident Number: 32456

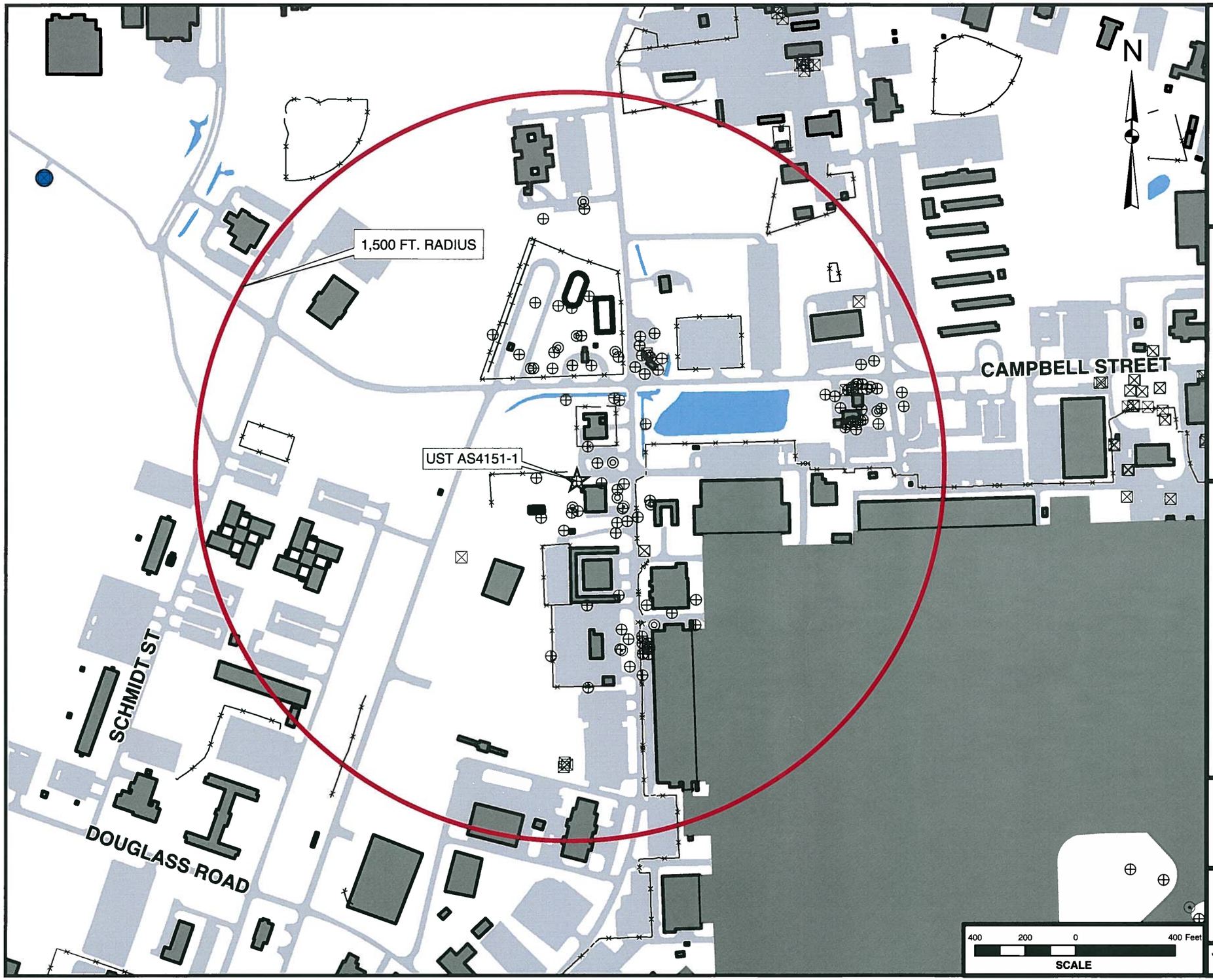
Sample ID	Contaminant of Concern →		C9-C18 Aliphatics	C19-C36 Aliphatics	C9-C22 Aromatics	C5-C8 Aliphatics
	Date Collected	Sample Depth (ft. BLS)				
Residential MSCC (mg/kg)			9,386	93,860	469	939
Industrial/Commercial MSCC (mg/kg)			245,280	#	12,264	24,528
Soil to Groundwater MSCC (mg/kg)			3,300	##	34	72
USTAS4151-1-SB03A	6/30/2008	2 - 3	<20.0	<10.0	<20.0	<10.0

All results in milligrams per kilogram (mg/kg).
ft. BLS = Feet Below Land Surface
MSCC = Maximum Soil Contaminant Concentration
MSCCs = Maximum Soil Contaminant Concentrations
< = Less than method detection limit
= Health based level > 100%
= Considered immoble

FIGURES

TANK CLOSURE ADDENDUM
UST AS-4151-1
BUILDING AS-4151
MCAS NEW RIVER

NAVFAC
Naval Facilities Engineering Command



LEGEND

- Type I Monitoring Well
- Type II Monitoring Well
- Type III Monitoring Well
- Pumping Well
- Unknown Well Type
- Fence
- Approximate Former UST Locations
- Buildings and Structures
- Oil/Water Separators
- Slabs
- Roads
- Driveways
- Parking Lots
- Forestland

NOTES

1. GIS Data Layers provided by MCB Camp Lejeune.

CATLIN
Engineers and Scientists

SITE VICINITY MAP

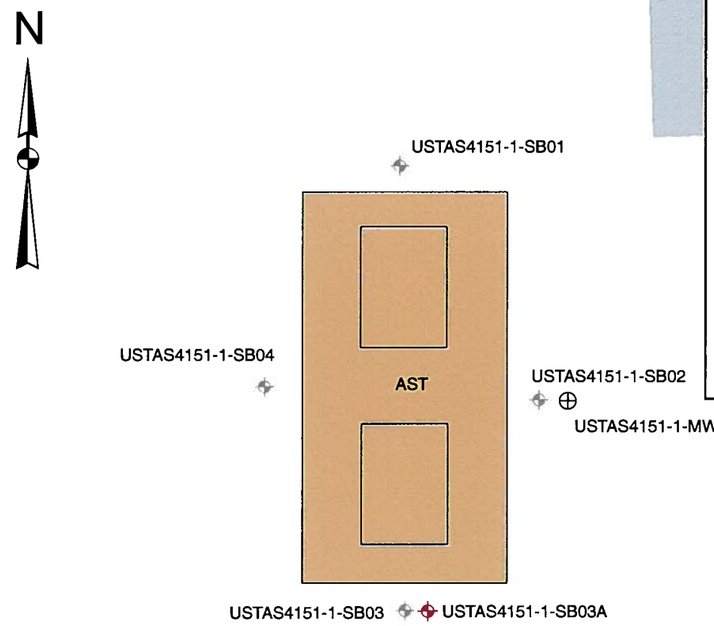
FIGURE 1

Job No.:	Date:	Scale:	Drawn By:	Checked By:
205-077	JULY 2008	AS SHOWN	KAWS	MEM

205-077-LSAs-TCA-FIGURES- USTAS4151-1-JULY08-FIGURE-1

TANK CLOSURE ADDENDUM
UST AS-4151-1
BUILDING AS-4151
MCAS NEW RIVER

NAVFAC Naval Facilities Engineering Command



SUMMARY OF SOIL LABORATORY RESULTS

Sample ID	Contaminant of Concern →		EPA METHOD 8260				EPA METHOD 8270					
	Date Collected	Sample Depth (ft. BLS)	Acetone	2-Butanone	Carbon disulfide	All other 8260 Compounds	Acenaphthene	Chrysene	Dibenzofuran	Fluoranthene	Pyrene	All other 8270 Compounds
Residential MSCC (mg/kg)			1,564	9,385	1,564	Varies	940	88	62	620	469	Varies
Industrial/Commercial MSCC (mg/kg)			40,880	245,280	40,880	Varies	24,000	780	1,635	16,400	12,264	Varies
Soil to Groundwater MSCC (mg/kg)			2.8	17	4.3	Varies	8.2	38	4.7	280	290	Varies
USTAS4151-1-SB03A	6/30/2008	2 - 3	0.0452 J	0.00633 J	0.00289 J	BMDL	0.446	0.053 J	0.290 J	0.225 J	0.156 J	BMDL

All results in milligrams per kilogram (mg/kg).
BMDL = Below Method Detection Limit
ft. BLS = Feet Below Land Surface.
J = Estimated concentration, below calibration range and above method detection limit
MSCC = Maximum Soil Contaminant Concentration

LEGEND

- Type I Monitoring Well
- Type II Monitoring Well
- Type III Monitoring Well
- Pumping Well
- Unknown Well Type
- New Soil Sample
- Existing Soil Sample
- Fence
- Approximate Former UST Locations
- Buildings and Structures
- Oil/Water Separators
- Slabs
- Roads
- Driveways
- Parking Lots
- Forestland
- Above Ground Storage Tank (AST)

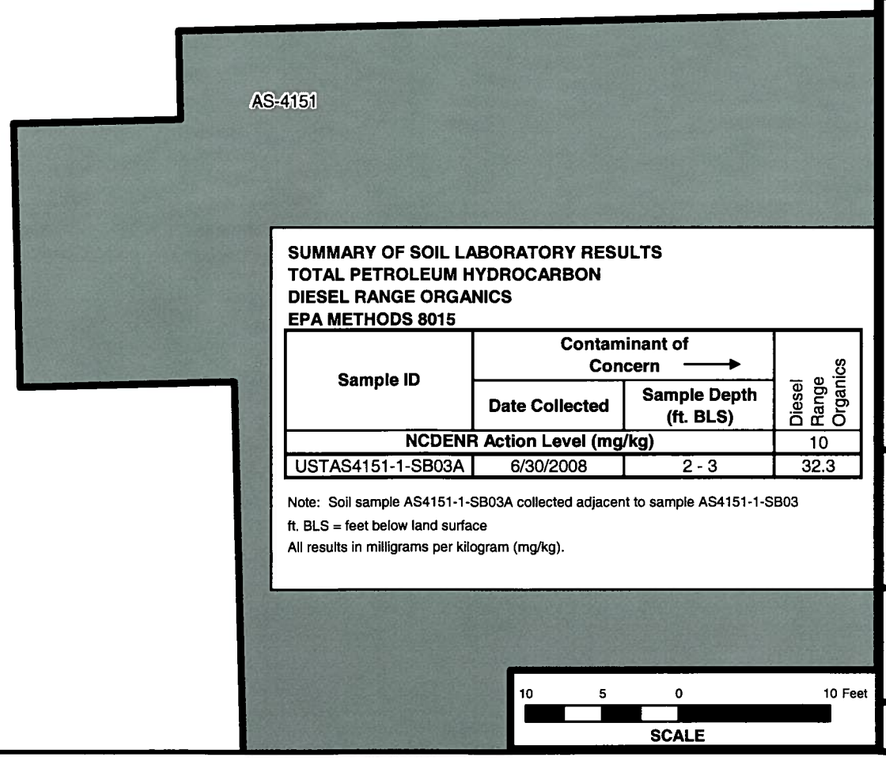
NOTES

1. GIS Data Layers provided by MCB Camp Lejeune.

SUMMARY OF SOIL LABORATORY RESULTS
EPA METHOD MADEP EPH AND VPH

Sample ID	Contaminant of Concern →		C9-C18 Aliphatics	C19-C36 Aliphatics	C9-C22 Aromatics	C5-C8 Aliphatics
	Date Collected	Sample Depth (ft. BLS)				
Residential MSCC (mg/kg)			9,386	93,860	469	939
Industrial/Commercial MSCC (mg/kg)			245,280	#	12,264	24,528
Soil to Groundwater MSCC (mg/kg)			3,300	##	34	72
USTAS4151-1-SB03A	6/30/2008	2 - 3	<20.0	<10.0	<20.0	<10.0

All results in milligrams per kilogram (mg/kg).
ft. BLS = Feet Below Land Surface.
MSCC = Maximum Soil Contaminant Concentration
MSCCs = Maximum Soil Contaminant Concentrations
< = Less than method detection limit
= Health based level > 100%
= Considered immoble



SUMMARY OF SOIL LABORATORY RESULTS
TOTAL PETROLEUM HYDROCARBON
DIESEL RANGE ORGANICS
EPA METHODS 8015

Sample ID	Contaminant of Concern →		Diesel Range Organics
	Date Collected	Sample Depth (ft. BLS)	
NCDENR Action Level (mg/kg)			10
USTAS4151-1-SB03A	6/30/2008	2 - 3	32.3

Note: Soil sample AS4151-1-SB03A collected adjacent to sample AS4151-1-SB03
ft. BLS = feet below land surface
All results in milligrams per kilogram (mg/kg).

CATLIN Engineers and Scientists

SITE PLAN WITH SOIL SAMPLE LOCATION AND SUMMARIZED RESULTS

FIGURE 2

Job No.:	Date:	Scale:	Drawn By:	Checked By:
205-077	JULY 2008	AS SHOWN	KAWS	MEM

205-077-LSAs-TCA-FIGURES- USTAS4151-1-JULY08-FIGURE-2

BORING LOG

BORING LOG

CATLIN ENGINEERS and SCIENTISTS
205-077
Wilmington, NC

SHEET 1 OF 1

PROJECT NO.: 205-077	STATE: NC	COUNTY: Onslow	LOCATION: MCAS, New River
PROJECT NAME: AS-4151-2 Tank Closure Addendum	LOGGED BY: Justin Heter		BORING ID: USTAS4151-2 SB02A
	DRILLER: Justin Heter		
NORTHING: NM	EASTING: NM	CREW:	
SYSTEM: N/A	BORING LOCATION: Adjacent to USTAS4151-2 SB02		LAND ELEV.: NM
DRILL MACHINE: Hand Auger	METHOD: Hand Auger	0 HOUR DTW: NE	BORING DEPTH: 1.0
START DATE: 6/30/08	FINISH DATE: 6/30/08	24 HOUR DTW: NM	ROCK DEPTH: --

DEPTH	BLOW COUNT 0.5 0.5 0.5 0.5	MOI.	OVA RESULTS (ppm) 0 1000 2000 3000 4000	LAB.	USCS	LOG	DEPTH	SOIL AND ROCK DESCRIPTION	ELEVATION
							0.0	LAND SURFACE	
0.0	HAND AUGER	D		1320	SC/ CL			Brown, Clayey SAND to Sandy CLAY.	
1.0							1.0	Boring Terminated at Depth 1.0 ft	

▽ = 0hr. DTW ▼ = 24hr. DTW

CATLIN ENVIRO LOG 205-077 AS4151-2 GPJ CATLIN GDT 7/22/08

LABORATORY ANALYTICAL REPORT AND CHAIN OF CUSTODY DOCUMENTATION

Ben Ashba
Richard Catlin & Associates
P.O. Box 10279
Wilmington, NC 28404-0279

Report Number: G128-2211

Client Project: AS4151-1

Dear Ben Ashba,

Enclosed are the results of the analytical services performed under the referenced project. The samples are certified to meet the requirements of the National Environmental Laboratory Accreditation Conference Standards. Copies of this report and supporting data will be retained in our files for a period of five years in the event they are required for future reference. Any samples submitted to our laboratory will be retained for a maximum of thirty (30) days from the date of this report unless other arrangements are requested.

If there are any questions about the report or the services performed during this project, please call SGS Environmental Services at (910) 350-1903. We will be happy to answer any questions or concerns which you may have.

Thank you for using SGS Environmental Services for your analytical services. We look forward to working with you again on any additional analytical needs which you may have.

Sincerely,
SGS Environmental Services, Inc.

07/10/08

Project Manager Date
Ashley Nifong

SGS ENVIRONMENTAL SERVICES, INC.

Results for Total Petroleum Hydrocarbons
by **GC/FID 8015**

Client Sample ID: USTAS4151-1-SB03A
Client Project ID: AS4151-1
Lab Sample ID: G128-2211-1
Lab Project ID: G128-2211
Report Basis: Dry Weight

Analyzed By: EAW
Date Collected: 6/30/2008 13:00
Date Received: 6/30/2008
Matrix: Soil
Solids 80.53

Analyte	Result MG/KG	RL MG/KG	Prep Method	Dilution Factor	Date Analyzed
Diesel Range Organics	**32.3**	7.70	3541	1	07/01/08

Comments:

Flags:

Reviewed By: _____

QC Results for Total Petroleum Hydrocarbons
by GC/FID

Client Sample ID: Batch QC
Lab Sample ID: G128-2212-1H
Batch ID: 11771

Analyzed By: EAW
Matrix: Soil
Solids 84.47

MS/MSD

Analyte	Sample MG/KG	Spiked MG/KG	MS MG/KG	REC %	#	Spiked MG/KG	MSD MG/KG	REC %	#	RPD %
DRO	BQL	73.7	59.1	80.2		70	55.6	79.4		1

LCS

Analyte	Spiked MG/KG	Result MG/KG	REC %	#	LIMITS Lower	Upper
DRO	62.5	50.8	81.3		55.3	137

Reviewed By: _____

Results for Volatiles
by GCMS 8260-5035

Client Sample ID: USTAS4151-1-SB03A
Client Project ID: AS4151-1
Lab Sample ID G128-2211-1B
Lab Project ID: G128-2211
Report Basis: Dry Weight

Analyzed By: MJC
Date Collected: 06-30-2008 13:00
Date Received: 6/30/2008
Matrix: Soil
Sample Amount: 6.40 g
%Solids: 80.5

Report Name Compound	Result MG/KG	Quantitation Limit MG/KG	MDL MG/KG	Dilution Factor	Date Analyzed	Flag
Isopropylbenzene	BQL	0.00485	0.00086	1	7/7/2008	
4-Isopropyltoluene	BQL	0.00485	0.00104	1	7/7/2008	
Methylene chloride	BQL	0.0194	0.00115	1	7/7/2008	
4-Methyl-2-pentanone	BQL	0.00485	0.00449	1	7/7/2008	
Methyl-tert-butyl ether (MTBE)	BQL	0.00485	0.00108	1	7/7/2008	
Naphthalene	BQL	0.00485	0.00083	1	7/7/2008	
n-Propyl benzene	BQL	0.00485	0.00122	1	7/7/2008	
Styrene	BQL	0.00485	0.00107	1	7/7/2008	
1,1,1,2-Tetrachloroethane	BQL	0.00485	0.00099	1	7/7/2008	
1,1,2,2-Tetrachloroethane	BQL	0.00485	0.00110	1	7/7/2008	
Tetrachloroethene	BQL	0.00485	0.00089	1	7/7/2008	
Toluene	BQL	0.00485	0.00097	1	7/7/2008	
1,2,3-Trichlorobenzene	BQL	0.00485	0.00101	1	7/7/2008	
1,2,4-Trichlorobenzene	BQL	0.00485	0.00100	1	7/7/2008	
Trichloroethene	BQL	0.00485	0.00093	1	7/7/2008	
1,1,1-Trichloroethane	BQL	0.00485	0.00110	1	7/7/2008	
1,1,2-Trichloroethane	BQL	0.00485	0.00159	1	7/7/2008	
Trichlorofluoromethane	BQL	0.00485	0.00100	1	7/7/2008	
1,2,3-Trichloropropane	BQL	0.00485	0.00120	1	7/7/2008	
1,2,4-Trimethylbenzene	BQL	0.00485	0.00122	1	7/7/2008	
1,3,5-Trimethylbenzene	BQL	0.00485	0.00111	1	7/7/2008	
Vinyl chloride	BQL	0.00485	0.00132	1	7/7/2008	
m-,p-Xylene	BQL	0.00970	0.00186	1	7/7/2008	
o-Xylene	BQL	0.00485	0.00094	1	7/7/2008	

	Spike Added	Spike Result	Percent Recovered
1,2-Dichloroethane-d4	0.05	0.0602	120
Toluene-d8	0.05	0.0484	97
4-Bromofluorobenzene	0.05	0.0356	71

Comments:

Flags:

Analyst: _____

Reviewed By: _____

SGS ENVIRONMENTAL SERVICES, INC.

Results for Volatiles
by GCMS 8260-5035

Client Sample ID: Method Blank
Client Project ID:
Lab Sample ID VBLK9070708B
Lab Project ID:
Report Basis: Dry Weight

Analyzed By: MJC
Date Collected:
Date Received:
Matrix: Soil
Sample Amount: 5 g
%Solids: 100.0

Report Name / Compound	Result UG/KG	Quantitation Limit UG/KG	MDL UG/KG	Dilution Factor	Date Analyzed	Flag
Isopropylbenzene	BQL	5.00	0.888	1	7/7/2008	
4-Isopropyltoluene	BQL	5.00	1.07	1	7/7/2008	
Methylene chloride	BQL	20.0	1.19	1	7/7/2008	
4-Methyl-2-pentanone	BQL	5.00	4.63	1	7/7/2008	
Methyl-tert-butyl ether (MTBE)	BQL	5.00	1.11	1	7/7/2008	
Naphthalene	BQL	5.00	0.850	1	7/7/2008	
n-Propyl benzene	BQL	5.00	1.26	1	7/7/2008	
Styrene	BQL	5.00	1.10	1	7/7/2008	
1,1,1,2-Tetrachloroethane	BQL	5.00	1.02	1	7/7/2008	
1,1,2,2-Tetrachloroethane	BQL	5.00	1.13	1	7/7/2008	
Tetrachloroethene	BQL	5.00	0.916	1	7/7/2008	
Toluene	BQL	5.00	0.997	1	7/7/2008	
1,2,3-Trichlorobenzene	BQL	5.00	1.04	1	7/7/2008	
1,2,4-Trichlorobenzene	**1.14**	5.00	1.03	1	7/7/2008	J
Trichloroethene	BQL	5.00	0.954	1	7/7/2008	
1,1,1-Trichloroethane	BQL	5.00	1.13	1	7/7/2008	
1,1,2-Trichloroethane	BQL	5.00	1.64	1	7/7/2008	
Trichlorofluoromethane	BQL	5.00	1.03	1	7/7/2008	
1,2,3-Trichloropropane	BQL	5.00	1.24	1	7/7/2008	
1,2,4-Trimethylbenzene	BQL	5.00	1.26	1	7/7/2008	
1,3,5-Trimethylbenzene	BQL	5.00	1.14	1	7/7/2008	
Vinyl chloride	BQL	5.00	1.36	1	7/7/2008	
m-,p-Xylene	BQL	10.0	1.92	1	7/7/2008	
o-Xylene	BQL	5.00	0.969	1	7/7/2008	

	Spike Added	Spike Result	Percent Recovered
1,2-Dichloroethane-d4	50	47.4	95
Toluene-d8	50	49.3	99
4-Bromofluorobenzene	50	48	96

Comments:

Flags:

Analyst: _____

Reviewed By: _____

LABORATORY CONTROL SAMPLE/LABORATORY CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: SGS Environmental — Dilution: 1

Lab Code: NC00919 — Matrix: Soil

LCS: LCS9070708A — Filename: 0707904.D — Date Analyzed: 07/07/08 12:42

LCSD: LCS9070708B — Filename: 0707905.D — Date Analyzed: 07/07/08 13:08

COMPOUND	LCS SPIKE (µg/kg)	LCS CONC (µg/kg)	LCS % REC #	LCSD SPIKE (µg/kg)	LCSD CONC (µg/kg)	LCSD % REC #	% RPD	QC LIMITS RPD	QC LIMITS REC
trans-1,3-dichloropropene	30.0	29.4	98.2	30.0	29.0	96.6	1.64	30	7.27-173
Diisopropyl ether	30.0	27.3	91.1	30.0	26.4	87.9	3.61	30	9.01-172
ethylbenzene	30.0	28.0	93.3	30.0	27.8	92.7	0.681	30	16.7-187
hexachlorobutadiene	30.0	29.1	97.1	30.0	29.3	97.6	0.548	30	16.7-173
2-hexanone	75.0	70.9	94.6	75.0	71.3	95.1	0.576	30	16.7-304
Iodomethane	30.0	33.2	111	30.0	33.3	111	0.210	30	16.7-200
isopropylbenzene	30.0	26.5	88.4	30.0	26.1	87.1	1.52	30	6.43-167
4-isopropyltoluene	30.0	28.1	93.7	30.0	27.7	92.4	1.32	30	6.97-170
Methyl-tert-butyl ether	30.0	26.9	89.8	30.0	28.3	94.5	5.06	30	10.7-173
methylene chloride	30.0	18.2	60.6	30.0	18.5	61.7	1.74	30	8.58-169
4-methyl-2-pentanone	75.0	73.4	97.9	75.0	75.4	100	2.69	30	16.7-293
naphthalene	30.0	27.3	90.9	30.0	30.1	100	9.90	30	16.7-175
n-propyl benzene	30.0	27.6	92.0	30.0	27.3	91.1	0.983	30	7.25-172
styrene	30.0	26.8	89.5	30.0	26.4	88.0	1.69	30	10.2-168
1,1,1,2-tetrachloroethane	30.0	30.4	101	30.0	30.7	102	0.883	30	5.87-177
1,1,2,2-tetrachloroethane	30.0	28.8	95.9	30.0	29.6	98.8	2.91	30	10.9-168
tetrachloroethene	30.0	31.7	106	30.0	31.5	105	0.538	30	16.7-195
toluene	30.0	29.8	99.2	30.0	29.9	99.7	0.503	30	26.6-159
1,2,3-trichlorobenzene	30.0	27.1	90.3	30.0	29.7	99.0	9.15	30	4.64-169
1,2,4-trichlorobenzene	30.0	27.9	93.0	30.0	29.0	96.8	4.04	30	6.55-165
1,1,1-trichloroethane	30.0	28.6	95.3	30.0	29.1	97.1	1.84	30	8.40-173
1,1,2-trichloroethane	30.0	29.1	96.9	30.0	29.9	99.7	2.88	30	12.2-166
trichloroethene	30.0	29.2	97.4	30.0	30.2	101	3.63	30	24.0-158
trichlorofluoromethane	30.0	28.4	94.7	30.0	25.9	86.2	9.40	30	5.64-183
1,2,3-trichloropropane	30.0	29.5	98.2	30.0	29.5	98.4	0.136	30	16.7-186
1,2,4-trimethylbenzene	30.0	27.9	93.0	30.0	27.2	90.8	2.39	30	8.60-168
1,3,5-trimethylbenzene	30.0	27.6	91.9	30.0	27.2	90.5	1.54	30	8.09-168
Vinyl acetate	75.0	71.2	95.0	75.0	68.7	91.6	3.59	30	16.7-225
vinyl chloride	30.0	29.4	97.8	30.0	29.8	99.4	1.59	30	7.56-178
m/p-xylene	60.0	56.2	93.8	60.0	54.2	90.4	3.71	30	8.91-169
o-xylene	30.0	28.5	95.1	30.0	28.6	95.5	0.420	30	9.45-167

System Monitoring Compound Results

		LCS SPIKE (µg/kg)	LCS CONC (µg/kg)	LCS % REC #	LCSD SPIKE (µg/kg)	LCSD CONC (µg/kg)	LCSD % REC #	QC LIMITS REC
460-00-4	4-Bromofluorobenzene	50	50.77	102	50	50.7	101	49.1-151
17060-07-0	1,2-Dichloroethane-d4	50	48.28	96.6	50	47.91	95.8	37.8-170
2037-26-5	Toluene-d8	50	50.21	100	50	50.16	100	58.8-144

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 1 out of 72 outside of limits

Spike Recovery: 2 out of 144 outside of limits

COMMENTS: _____

Analyst: _____ Reviewed by: _____

3B

SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: SGS Environmental — Inst: MSD9

Lab Code: NC00919 — Batch: 9070708

EPA Sample No.: g760-8-3a, g760-8-3a, g760-8-3a — Dilution: 1

Filenames: 0707911.D, 0707912.D, 0707913.D — Matrix: Soil

COMPOUND	SAMPLE CONC (µg/kg)	MS SPIKE (µg/kg)	MS CONC (µg/kg)	MS % REC #	MSD SPIKE (µg/kg)	MSD CONC (µg/kg)	MSD % REC #	% RPD	QC LIMITS RPD	QC LIMITS REC
trans-1,3-dichloropropene	BQL	30.6	29.1	95.0	30.6	28.0	91.4	3.83	30	44.7-144
Diisopropyl ether	BQL	30.6	29.5	96.2	30.6	28.4	92.7	3.64	30	79.4-122
ethylbenzene	BQL	30.6	30.4	99.2	30.6	27.9	91.2	8.37	30	73.8-126
hexachlorobutadiene	BQL	30.6	26.2	85.6	30.6	22.6	73.9	14.6	30	51.8-134
2-hexanone	BQL	30.6	67.7	221*	30.6	66.8	218*	1.43	30	41.6-111
Iodomethane	BQL	30.6	29.8	97.4	30.6	31.2	102	4.55	30	40.6-126
isopropylbenzene	BQL	30.6	27.2	88.6	30.6	25.7	83.8	5.64	30	74.3-123
4-isopropyltoluene	BQL	30.6	29.3	95.7	30.6	27.2	88.9	7.37	30	74.6-122
Methyl-tert-butyl ether	BQL	30.6	27.2	88.8	30.6	26.8	87.6	1.32	30	66.5-136
methylene chloride	BQL	122	19.4	15.9*	122	18.2	14.8*	6.78	30	48.6-155
4-methyl-2-pentanone	BQL	30.6	73.6	240*	30.6	72.3	236*	1.85	30	6.88-166
naphthalene	BQL	30.6	24.7	80.7	30.6	24.8	80.8	0.0825	30	55.1-140
n-propyl benzene	BQL	30.6	29.8	97.2	30.6	27.6	90.0	7.69	30	71.6-128
styrene	BQL	30.6	26.8	87.6	30.6	26.9	87.7	0.114	30	73.2-123
1,1,1,2-tetrachloroethane	BQL	30.6	29.4	95.9	30.6	28.0	91.4	4.73	30	69.4-120
1,1,2,2-tetrachloroethane	BQL	30.6	29.7	96.9	30.6	28.4	92.9	4.22	30	75.7-136
tetrachloroethene	BQL	30.6	31.4	102	30.6	30.8	101	1.71	30	45.8-153
toluene	BQL	30.6	29.7	97.0	30.6	27.6	90.1	7.45	30	66.4-128
1,2,3-trichlorobenzene	BQL	30.6	24.9	81.4	30.6	23.8	77.7	4.57	30	61.0-126
1,2,4-trichlorobenzene	BQL	30.6	25.7	83.9	30.6	23.6	77.2	8.40	30	60.6-125
1,1,1-trichloroethane	BQL	30.6	29.9	97.6	30.6	28.9	94.3	3.40	30	78.4-121
1,1,2-trichloroethane	BQL	30.6	29.3	95.7	30.6	28.4	92.5	3.33	30	64.8-128
trichloroethene	BQL	30.6	29.8	97.2	30.6	29.3	95.7	1.56	30	84.9-136
trichlorofluoromethane	BQL	30.6	29.5	96.3	30.6	29.5	96.3	0.0346	30	76.8-132
1,2,3-trichloropropane	BQL	30.6	30.0	98.1	30.6	28.7	93.8	4.48	30	10.0-218
1,2,4-trimethylbenzene	BQL	30.6	29.8	97.2	30.6	28.3	92.3	5.14	30	31.0-172
1,3,5-trimethylbenzene	BQL	30.6	29.7	96.8	30.6	27.8	90.8	6.47	30	67.7-132
Vinyl acetate	BQL	76.6	63.2	82.6	76.6	56.0	73.0	12.2	30	0.00-355
vinyl chloride	BQL	30.6	30.5	99.5	30.6	30.9	101	1.53	30	68.1-137
m/p-xylene	BQL	61.3	53.8	87.8	61.3	54.4	88.8	1.11	30	79.8-118
o-xylene	BQL	30.6	28.9	94.3	30.6	28.3	92.5	2.00	30	80.0-121

System Monitoring Compound Results

		MS SPIKE (µg/kg)	MS CONC (µg/kg)	MS % REC #	MSD SPIKE (µg/kg)	MSD CONC (µg/kg)	MSD % REC #	QC LIMITS REC
460-00-4	4-Bromofluorobenzene	50	51.7	103	50	51.57	103	49.1-151
17060-07-0	1,2-Dichloroethane-d4	50	50.35	101	50	50.45	101	37.8-170
2037-26-5	Toluene-d8	50	50.96	102	50	50.68	101	58.8-144

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

MS Spike Recovery: 4 failure(s) out of 72. MSD Spike Recovery: 4 failure(s) out of 72.

RPD: 1 out of 72 outside of limits

COMMENTS: _____

Analyst: _____ Reviewed by: _____

Results for Semivolatiles by GCMS 8270

Client Sample ID: USTAS4151-1-SB03A
Client Project ID: AS4151-1
Lab Sample ID: G128-2211-1I
Lab Project ID: G128-2211
Report Basis: Dry weight

Analyzed By: DES
Date Collected: 6/30/2008 13:00
Date Received: 6/30/2008
Date Extracted: 7/7/2008
Matrix: Soil
% Solids: 80.53

Compound	Result mg/Kg	RL mg/Kg	MDL mg/Kg	Dilution Factor	Date Analyzed	Flag
2-Methylphenol	BQL	0.381	0.134	1	7/9/2008	
3- & 4-Methylphenol	BQL	0.381	0.129	1	7/9/2008	
Naphthalene	BQL	0.381	0.031	1	7/9/2008	
2-Nitroaniline	BQL	0.381	0.060	1	7/9/2008	
3-Nitroaniline	BQL	1.91	0.393	1	7/9/2008	
4-Nitroaniline	BQL	1.91	0.118	1	7/9/2008	
Nitrobenzene	BQL	0.381	0.052	1	7/9/2008	
2-Nitrophenol	BQL	0.381	0.118	1	7/9/2008	
4-Nitrophenol	BQL	1.91	0.106	1	7/9/2008	
N-Nitrosodi-n-propylamine	BQL	0.381	0.049	1	7/9/2008	
Pentachlorophenol	BQL	1.91	0.100	1	7/9/2008	
Phenanthrene	BQL	0.381	0.044	1	7/9/2008	
Phenol	BQL	0.381	0.105	1	7/9/2008	
Pyrene	**0.156**	0.381	0.073	1	7/9/2008	J
1,2,4-Trichlorobenzene	BQL	0.381	0.048	1	7/9/2008	
2,4,5-Trichlorophenol	BQL	0.381	0.148	1	7/9/2008	
2,4,6-Trichlorophenol	BQL	0.381	0.136	1	7/9/2008	

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	9.1	91
2-Fluorophenol	10	8.7	87
Nitrobenzene-d5	10	9.6	96
Phenol-d6	10	8.9	89
2,4,6-Tribromophenol	10	8.1	81
4-Terphenyl-d14	10	9.8	98

Comments:

* N-Nitrosodiphenylamine is reported as the breakdown product Diphenylamine.

Flags:

BQL = Below Quantitation Limits.
J = Detected below the quantitation limit.

Reviewed By:

Results for Semivolatiles by GCMS 8270

Client Sample ID: Method Blank
Client Project ID:
Lab Sample ID: PB11810
Lab Project ID:
Report Basis: Dry Weight

Analyzed By: DES
Date Collected:
Date Received:
Date Extracted: 7/7/2008
Matrix: SOIL
% Solids: 100

Compound	Result ug/Kg	RL ug/Kg	MDL ug/Kg	Dilution Factor	Date Analyzed	Flag
2-Methylphenol	BQL	313	110	1	7/9/2008	
3- & 4-Methylphenol	BQL	313	106	1	7/9/2008	
Naphthalene	BQL	313	25.3	1	7/9/2008	
2-Nitroaniline	BQL	313	49.1	1	7/9/2008	
3-Nitroaniline	BQL	1560	322	1	7/9/2008	
4-Nitroaniline	BQL	1560	96.3	1	7/9/2008	
Nitrobenzene	BQL	313	42.2	1	7/9/2008	
2-Nitrophenol	BQL	313	96.9	1	7/9/2008	
4-Nitrophenol	BQL	1560	86.6	1	7/9/2008	
N-Nitrosodi-n-propylamine	BQL	313	39.7	1	7/9/2008	
Pentachlorophenol	BQL	1560	81.6	1	7/9/2008	
Phenanthrene	BQL	313	35.6	1	7/9/2008	
Phenol	BQL	313	85.6	1	7/9/2008	
Pyrene	BQL	313	60.0	1	7/9/2008	
1,2,4-Trichlorobenzene	BQL	313	39.1	1	7/9/2008	
2,4,5-Trichlorophenol	BQL	313	121	1	7/9/2008	
2,4,6-Trichlorophenol	BQL	313	111	1	7/9/2008	

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	9.5	94
2-Fluorophenol	10	7.8	78
Nitrobenzene-d5	10	9.2	92
Phenol-d6	10	8.4	84
2,4,6-Tribromophenol	10	8	80
4-Terphenyl-d14	10	10	100

Comments:

* N-Nitrosodiphenylamine is reported as the breakdown product Diphenylamine.

Flags:

BQL = Below Quantitation Limits.
J = Detected below the quantitation limit.

Reviewed By:

LABORATORY CONTROL SAMPLE SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: SGS Environmental Services, Inc.

Lab Code: NC00919 Case No.: SAS No.: SDG No:

Matrix: (soil/water) SOIL Lab Sample ID: LCS11810

Sample wt/vol: 32 (g) Lab File ID: 0709612.D

Level: (low/med) LOW

% Moisture: 0% Decanted:(Y/N) N Date Analyzed: 07/09/08 14:41

Concentrated Extract Volume: 10000 (µL) Dilution Factor: 1

Injection Volume: 1 (µL) Extraction: (Type) 3541

GPC Cleanup: N

CAS NO.	COMPOUND	SPIKE AMT (µg/kg)	SAMP CONC (µg/kg)	% REC #	QC LIMITS
87-68-3	Hexachlorobutadiene	3125	2680	85.9	73.1-114
77-47-4	Hexachlorocyclopentadiene	3125	5980	191	0.00-854
67-72-1	Hexachloroethane	3125	2750	87.9	70.9-106
193-39-5	Indeno(1,2,3-c,d)pyrene	3125	3010	96.3	65.2-135
78-59-1	Isophorone	3125	2570	82.3	76.7-116
90-12-0	1-Methylnaphthalene	3125	2860	91.5	73.1-108
91-57-6	2-Methylnaphthalene	3125	2750	88.0	75.3-113
95-48-7	2-Methylphenol	3125	2670	85.5	69.4-110
108-39-4	4-Methylphenol	6250	5870	94.0	70.0-116
621-64-7	N-Nitrosodi-n-propylamine	3125	2850	91.2	69.7-117
86-30-6	Diphenylamine	3125	2790	89.4	69.1-105
91-20-3	Naphthalene	3125	2880	92.0	78.4-115
88-74-4	2-Nitroaniline	3125	2810	89.8	65.0-109
99-09-2	3-Nitroaniline	3125	2540	81.4	57.4-102
100-01-6	4-Nitroaniline	3125	2660	85.0	62.8-113
98-95-3	Nitrobenzene	3125	2900	92.7	72.7-113
88-75-5	2-Nitrophenol	3125	2810	89.9	71.8-113
100-02-7	4-Nitrophenol	3125	2130	68.3	39.6-116
87-86-5	Pentachlorophenol	3125	1950	62.5	49.8-106
85-01-8	Phenanthrene	3125	2750	88.0	70.9-110
108-95-2	Phenol	3125	2890	92.5	72.1-106
129-00-0	Pyrene	3125	2760	88.3	71.9-112
110-86-1	Pyridine	3125	2310	74.0	31.1-97.3
120-82-1	1,2,4-Trichlorobenzene	3125	2780	89.0	73.6-107
95-95-4	2,4,5-Trichlorophenol	3125	2760	88.4	69.1-114
88-06-2	2,4,6-Trichlorophenol	3125	2680	85.7	71.2-112

System Monitoring Compound Results		Spike Added (µg/kg)	Spike Result (µg/kg)	Percent Rec. (%)	Percent Recovery (%)
118-79-6	2,4,6-Tribromophenol	3125	2560	82.0	41.1-129
321-60-8	2-Fluorobiphenyl	3125	2870	91.8	56.4-116
367-12-4	2-Fluorophenol	3125	2710	86.7	41.8-123
1718-51-0	4-Terphenyl-d14	3125	3190	102	43.8-140
4165-60-0	Nitrobenzene-d5	3125	2970	94.9	46.1-117
13127-88-3	Phenol-d6	3125	2770	88.5	47.9-125

Analyst:

SGS Environmental Services, Inc.

3D

SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: SGS Environmental Services, Inc.

Lab Code: NC00919 Inst: MSD6

EPA Sample No.: G760-8-8G, G760-8-8H, G760-8-8I Batch: 6070908

Filenames: 0709621.D, 0709625.D, 0709626.D Dilution: 1

COMPOUND	SAMPLE CONC (µg/kg)	MS SPIKE (µg/kg)	MS CONC (µg/kg)	MS % REC #	MSD SPIKE (µg/kg)	MSD CONC (µg/kg)	MSD % REC #	% RPD	QC LIMITS RPD	QC LIMITS REC
Hexachlorobutadiene	BQL	3210	2670	83.2	3230	2520	77.9	6.58	30	69.1-118
Hexachlorocyclopentadiene	BQL	3210	4880	152	3230	4620	143	6.11	30	-10.4-176
Hexachloroethane	BQL	3210	2720	84.6	3230	2550	79.0	6.85	30	68.0-122
Indeno(1,2,3-c,d)pyrene	BQL	3210	3120	97.2	3230	3030	93.7	3.67	30	29.1-157
Isophorone	BQL	3210	2620	81.6	3230	2460	76.2	6.84	30	65.2-143
1-Methylnaphthalene	BQL	3210	2880	89.8	3230	2740	84.6	5.96	30	68.0-130
2-Methylnaphthalene	BQL	3210	2820	87.9	3230	2650	81.8	7.19	30	74.1-111
2-Methylphenol	BQL	3210	2650	82.5	3230	2630	81.2	1.59	30	78.7-116
4-Methylphenol	BQL	6430	5850	91.0	6470	5680	87.8	3.64	30	71.2-101
N-Nitrosodi-n-propylamine	BQL	3210	2920	90.9	3230	2760	85.5	6.12	30	74.3-133
Diphenylamine	BQL	3210	2850	88.8	3230	2770	85.6	3.67	30	73.6-208
Naphthalene	BQL	3210	2950	91.8	3230	2780	85.9	6.64	30	49.9-137
2-Nitroaniline	BQL	3210	2770	86.2	3230	2760	85.2	1.17	30	70.0-129
3-Nitroaniline	BQL	3210	2690	83.7	3230	2570	79.6	5.02	30	76.6-356
4-Nitroaniline	BQL	3210	2940	91.5	3230	2890	89.4	2.32	30	50.8-178
Nitrobenzene	BQL	3210	2890	89.9	3230	2810	86.8	3.51	30	71.4-122
2-Nitrophenol	BQL	3210	2920	90.9	3230	2770	85.8	5.77	30	63.3-112
4-Nitrophenol	BQL	3210	2170	67.7	3230	2080	64.4	5.00	30	56.8-133
Pentachlorophenol	BQL	3210	2060	64.0	3230	1860	57.6	10.5	30	29.2-108
Phenanthrene	BQL	3210	2930	91.1	3230	2780	85.9	5.88	30	55.8-128
Phenol	BQL	3210	2890	90.0	3230	2860	88.3	1.91	30	71.2-120
Pyrene	BQL	3210	2970	92.4	3230	2810	86.8	6.25	30	68.5-140
Pyridine	BQL	3210	2660	82.7	3230	2370	73.3	12.1	30	50.0-150
1,2,4-Trichlorobenzene	BQL	3210	2820	87.7	3230	2630	81.4	7.45	30	68.9-119
2,4,5-Trichlorophenol	BQL	3210	2580	80.4	3230	2470	76.4	5.10	30	72.4-118
2,4,6-Trichlorophenol	BQL	3210	2690	83.6	3230	2640	81.6	2.42	30	67.9-116

System Monitoring Compound Results		Spike Added (µg kg)	MS Result (µg kg)	MS Rec. (%)	Spike Added (µg kg)	MSD Result (µg/kg)	MSD Rec. (%)	Percent Recovery (%)
118-79-6	2,4,6-Tribromophenol	10	79	79.0	10	74.7	74.7	41.1-129
321-60-8	2-Fluorobiphenyl	10	92.2	92.2	10	82.3	82.3	56.4-116
367-12-4	2-Fluorophenol	10	88.4	88.4	10	79.6	79.6	41.8-123
1718-51-0	4-Terphenyl-d14	10	105.8	106	10	94	94.0	43.8-140
4165-60-0	Nitrobenzene-d5	10	94.1	94.1	10	84.7	84.7	46.1-117
13127-88-3	Phenol-d6	10	87.1	87.1	10	81.5	81.5	47.9-125

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 1 out of 67 outside of limits

Spike Recovery: 4 out of 134 outside of limits

COMMENTS:

Analyst: DS

Attachment 3

EPH Laboratory Reporting Form

Calibration and QA/QC Information

Initial Calibration Date: 06/05/08

Calibration Ranges and Limits

Range	MDL (02/15/08) (µg/L)	MDL (02/11/08) (mg/Kg)	ML (µg/L)	ML (mg/Kg)	RL (µg/L)	RL (mg/Kg)
C9-C18 Aliphatics	1.66	0.274	5.28	0.871	100	10
C19-C36 Aliphatics	2.79	0.201	8.87	0.639	100	10
C11-C22 Aromatics	2.64	0.110	8.40	0.350	100	10

Calibration Concentration Levels

Range	Levels (µg/L)	Levels (mg/Kg)	%RSD if CF r if LR	Method of Quantitation
C_9-C_{18} Aliphatics	200	33.3	1.89	Calibration Factor
	100	16.7		
	50	8.33		
	25	4.17		
	5	0.833		
C_{19}-C_{36} Aliphatics	200	33.3	0.86	Calibration Factor
	100	16.7		
	50	8.33		
	25	4.17		
	5	0.833		
C_{11}-C_{22} Aromatics	200	33.3	0.99	Linear Regression
	100	16.7		
	50	8.33		
	25	4.17		
	5	0.833		

Calibration Check Date: 07/09/08
07/09/08

Filenames: ep070908/001f0101.d
ep070908/002f0201.d

Calibration Check

Range	Levels (µg/L)	Levels (mg/Kg)	%Difference if CF %Drift if LR	Limits
C9-C18 Aliphatics	100	16.7	16.5	≤±25%
C19-C36 Aliphatics	100	16.7	16.3	≤±25%
C11-C22 Aromatics	100	16.7	16.1	≤±25%

MDL = Method Detection Limit
ML = Minimum Limit
RL = Reportable Limit
RPD = Relative Percent Difference
%RSD = Percent Relative Standard Deviation
CCC = Correlation Coefficient of Curve

VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Richard Catlin & Associates

Project Name: AS4151-1

Sample Information	
Sample Identification	USTAS4151-1-SB03A
Sample Matrix	Soil
Collection Option (for Soil)*	2
Date Collected	06/30/08
Date Received	06/30/08
Date Extracted	07/01/08
Date Analyzed	07/07/08 22:31 - 07/07/08 22:31
Dry Weight	80.5
Dilution Factor	1 - 1

Analytical Results			
Analyte	Result mg/Kg	Report Limit mg/Kg	Flags
C_5-C_8 Aliphatics**	BQL	10.0	
C_9-C_{12} Aliphatics**	BQL	10.0	
C_9-C_{10} Aromatics**	BQL	10.0	

	Percent Recovery	Flags	Limits Lower	Limits Upper
Surrogate % Recovery - PID	97.8		70	130
Surrogate % Recovery - FID	100		70	130

* = Option 1 = Established fill line on vial, Option 2 = Sampling Device/Brand, or Option 3 = Field weight of soil.

** = Excludes any surrogates or internal standards and are unadjusted for individual analytes.

Lab Info: g128-2211-1e	Lab Info: g128-2211-1e
FID Info: VP070708/032F0101.D	PID Info: VP070708/032R0101.D

Reviewed By:

SGS ENVIRONMENTAL SERVICES, INC.

LABORATORY CONTROL SPIKE RESULTS
by Method VPH

SGS Environmental Services, Inc.

Lab Sample ID:	LCS4070708A	Analyzed By:		
Lab Project ID:	Batch QC	Matrix:	Soil	
Report Basis:	Dry	Percent Solids:	100	%

Analytical QC Results Summary

Analyte	Expected Amount mg/Kg	Measured Amount mg/Kg	Percent Recovery (%)	Lower Limit (%)	Upper Limit (%)	Qualifier
C5-C8 Aliphatics		8.44				
C9-C12 Aliphatics		3.20				
C9-C10 Aromatics		2.93				
Total VPH	16.0	14.6	91.3	70.0	130	

Surrogate Standards	Expected Amount mg/Kg	Measured Amount mg/Kg	Percent Recovery (%)	Lower Limit (%)	Upper Limit (%)	Qualifier
Surrogate - PID	100	94.5	94.5	70.0	130	
Surrogate - FID	100	97.0	97.0	70.0	130	

Reviewed By: _____

Attachment 2

VPH Laboratory Reporting Form

Calibration and QA/QC Information

FID Initial Calibration Date: 07/06/08 PID Initial Calibration Date: 07/06/08

Calibration Ranges and Limits

Range	MDL (µg/L)	MDL (mg/Kg)	ML (µg/L)	ML (mg/Kg)	RL (µg/L)	RL (mg/Kg)
C_5-C_8 Aliphatics	2.02	0.175	6.42	0.557	100	10
C_9-C_{12} Aliphatics	1.51	0.118	4.80	0.375	100	10
C_9-C_{10} Aromatics	0.902	0.132	2.87	0.420	100	10

Calibration Concentration Levels

Range	Levels (µg/L)	Levels (mg/Kg)	%RSD if CF r if LR	Method of Quantitation
C_5-C_8 Aliphatics	10	0.8	17.43	Calibration Factor
	50	4		
	100	8		
	200	16		
	500	40		
C_9-C_{12} Aliphatics	10	0.8	21.36	Calibration Factor
	50	4		
	100	8		
	200	16		
	500	40		
C_9-C_{10} Aromatics	10	0.8	16.31	Calibration Factor
	50	4		
	100	8		
	200	16		
	500	40		

Calibration Check Date: 07/07/08 Filename: VP070708/002F0101.d

Calibration Check

Range	Levels (µg/L)	Levels (mg/Kg)	%Difference if CF %Drift if LR	Limits
C_5-C_8 Aliphatics	200	16	-3.6	±25%
C_9-C_{12} Aliphatics	200	16	-9.4	±25%
C_9-C_{10} Aromatics	200	16	-4.4	±25%

MDL = Method Detection Limit
ML = Minimum Limit
RL = Reportable Limit
RPD = Relative Percent Difference
%RSD = Percent Relative Standard Deviation
CCC = Correlation Coefficient of Curve

CHAIN OF CUSTODY RECORD
SGS Environmental Services Inc.

Locations Nationwide
- Alaska
- Hawaii
- Ohio
- Maryland
- New Jersey
- North Carolina
- West Virginia

www.us.sgs.com

C882[illegible]

(1)

CLIENT: Catlin

CONTACT: Ben Ashba PHONE NO: 910)452-5861

PROJECT: AS4151-1 SITE/PWSID#: 205-077

REPORTS TO: Ben Ashba E-MAIL:

FAX NO.:( )

INVOICE TO: Sheila @Catlin QUOTE # DOD101

P.O. NUMBER 280630-4

SGS Reference: G128-2211

PAGE 1 OF 1

(2)

LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	No CONTAINERS	SAMPLE TYPE (C= COMP, G= GRAB)	Preservatives Used	(3) Analysis Required: DRO	8260	8270	EPH	VPH	REMARKS
	USTAS4151-1-SB03A	6/30	1300	S	7	G		✓	HOLD				

(5)

Collected/Relinquished By:(1)	Date	Time	Received By:	Date	Time
Justin Hetts	6/30/08	1505		6/30/0	1505
Relinquished By: (2)	Date	Time	Received By:	Date	Time
Relinquished By: (3)	Date	Time	Received By:	Date	Time
Relinquished By: (4)	Date	Time	Received By:	Date	Time

(4)

Shipping Carrier:

Shipping Ticket No:

Special Deliverable Requirements:

Samples Received Cold? (Circle) YES NO

Temperature °C: 12.8°C on ice Container

Chain of Custody Seal: (Circle) Top

INTACT BROKEN ABSENT

Special Instructions:
Test for DRO, HOLD other analysis until results

Requested Turnaround Time:
☑ RUSH 24-hr DRO (Date Needed) ☐ STD

☐ 200 W. Potter Drive Anchorage, AK 99518 Tel: (907) 562-2343 Fax: (907) 561-5301
☐ 5500 Business Drive Wilmington, NC 28405 Tel: (910) 350-1903 Fax: (910) 350-1557
☐ 1270 Greenbrier Street Charleston, WV 25311 Tel: (304) 346-0725 Fax: (304) 346-0761

White - Retained by Lab
Yellow - Returned with Report
Pink - Retained by Sampler

N.C. CERTIFICATION #481

SGS ENVIRONMENTAL SERVICES, INC.

BORING LOG

BORING LOG

CATLIN ENGINEERS and SCIENTISTS
205-077
Wilmington, NC

SHEET 1 OF 1

PROJECT NO.: 205-077	STATE: NC	COUNTY: Onslow	LOCATION: MCAS, New River
PROJECT NAME: AS-4151-2 Tank Closure Addendum	LOGGED BY: Justin Heter		BORING ID: USTAS4151-2 SB02A
	DRILLER: Justin Heter		
NORTHING: NM	EASTING: NM	CREW:	
SYSTEM: N/A	BORING LOCATION: Adjacent to USTAS4151-2 SB02		LAND ELEV.: NM
DRILL MACHINE: Hand Auger	METHOD: Hand Auger	0 HOUR DTW: NE	BORING DEPTH: 1.0
START DATE: 6/30/08	FINISH DATE: 6/30/08	24 HOUR DTW: NM	ROCK DEPTH: --

DEPTH	BLOW COUNT 0.5 0.5 0.5 0.5	MOI.	OVA RESULTS (ppm) 0 1000 2000 3000 4000	LAB.	USCS	LOG	SOIL AND ROCK DESCRIPTION DEPTH	ELEVATION
							0.0	LAND SURFACE
0.0	HAND AUGER	D		1320	SC/ CL		Brown, Clayey SAND to Sandy CLAY.	
1.0							1.0	Boring Terminated at Depth 1.0 ft

▽ = 0hr. DTW ▼ = 24hr. DTW

CATLIN ENVIRO LOG 205-077_AS4151-2.GPJ CATLIN.GDT 7/22/08

LABORATORY ANALYTICAL REPORT AND CHAIN OF CUSTODY DOCUMENTATION

Ben Ashba
Richard Catlin & Associates
P.O. Box 10279
Wilmington, NC 28404-0279

Report Number: G128-2211

Client Project: AS4151-1

Dear Ben Ashba,

Enclosed are the results of the analytical services performed under the referenced project. The samples are certified to meet the requirements of the National Environmental Laboratory Accreditation Conference Standards. Copies of this report and supporting data will be retained in our files for a period of five years in the event they are required for future reference. Any samples submitted to our laboratory will be retained for a maximum of thirty (30) days from the date of this report unless other arrangements are requested.

If there are any questions about the report or the services performed during this project, please call SGS Environmental Services at (910) 350-1903. We will be happy to answer any questions or concerns which you may have.

Thank you for using SGS Environmental Services for your analytical services. We look forward to working with you again on any additional analytical needs which you may have.

Sincerely,
SGS Environmental Services, Inc.

07/10/08

Project Manager Date
Ashley Nifong

List of Reporting Abbreviations and Data Qualifiers

B = Compound also detected in batch blank

BQL = Below Quantitation Limit (RL or MDL)

DF = Dilution Factor

Dup = Duplicate

D = Detected, but RPD is > 40% between results in dual column method.

E = Estimated concentration, exceeds calibration range.

J = Estimated concentration, below calibration range and above MDL

LCS(D) = Laboratory Control Spike (Duplicate)

MDL = Method Detection Limit

MS(D) = Matrix Spike (Duplicate)

PQL = Practical Quantitation Limit

RL/CL = Reporting Limit / Control Limit

RPD = Relative Percent Difference

mg/kg = milligram per kilogram, ppm, parts per million

ug/kg = micrograms per kilogram, ppb, parts per billion

mg/L = milligram per liter, ppm, parts per million

ug/L = micrograms per liter, ppb, parts per billion

% Rec = Percent Recovery

% soilds = Percent Solids

Special Notes:

1) Metals and mercury samples are digested with a hot block, see the standard operating procedure document for details.

2) Uncertainty for all reported data is less than or equal to 30 percent.

MI34.021208.4

SGS ENVIRONMENTAL SERVICES, INC.

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: USTAS4151-1-SB03A
Client Project ID: AS4151-1
Lab Sample ID: G128-2211-1
Lab Project ID: G128-2211
Report Basis: Dry Weight

Analyzed By: EAW
Date Collected: 6/30/2008 13:00
Date Received: 6/30/2008
Matrix: Soil
Solids 80.53

Analyte	Result MG/KG	RL MG/KG	Prep Method	Dilution Factor	Date Analyzed
Diesel Range Organics	**32.3**	7.70	3541	1	07/01/08

Comments:

Flags:

Reviewed By: _____

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: Method Blank
Client Project ID:
Lab Sample ID: PB11771
Lab Project ID:
Report Basis: Dry Weight

Analyzed By: EAW
Date Collected:
Date Received:
Matrix: SOIL
Solids 100.00

Analyte	Result mg/KG	RL mg/KG	Prep Method	Dilution Factor	Date Analyzed
Diesel Range Organics	BQL	6.25	3541	1	07/01/08

Comments:

Flags:

Reviewed By:

SGS ENVIRONMENTAL SERVICES, INC.

QC Results for Total Petroleum Hydrocarbons
by GC/FID

Client Sample ID: Batch QC
Lab Sample ID: G128-2212-1H
Batch ID: 11771

Analyzed By: EAW
Matrix: Soil
Solids 84.47

MS/MSD

Analyte	Sample MG/KG	Spiked MG/KG	MS MG/KG	REC %	#	Spiked MG/KG	MSD MG/KG	REC %	#	RPD %
DRO	BQL	73.7	59.1	80.2		70	55.6	79.4		1

LCS

Analyte	Spiked MG/KG	Result MG/KG	REC %	#	LIMITS Lower	Upper
DRO	62.5	50.8	81.3		55.3	137

Reviewed By: _____

Results for Volatiles
by GCMS 8260-5035

Client Sample ID: USTAS4151-1-SB03A
Client Project ID: AS4151-1
Lab Sample ID G128-2211-1B
Lab Project ID: G128-2211
Report Basis: Dry Weight

Analyzed By: MJC
Date Collected: 06-30-2008 13:00
Date Received: 6/30/2008
Matrix: Soil
Sample Amount: 6.40 g
%Solids: 80.5

Report Name Compound	Result MG/KG	Quantitation Limit MG/KG	MDL MG/KG	Dilution Factor	Date Analyzed	Flag
Acetone	**0.0452**	0.0485	0.00670	1	7/7/2008	J
Benzene	BQL	0.00485	0.00104	1	7/7/2008	
Bromobenzene	BQL	0.00485	0.00100	1	7/7/2008	
Bromochloromethane	BQL	0.00485	0.00167	1	7/7/2008	
Bromodichloromethane	BQL	0.00485	0.00096	1	7/7/2008	
Bromoform	BQL	0.00485	0.00097	1	7/7/2008	
Bromomethane	BQL	0.00485	0.00102	1	7/7/2008	
2-Butanone	**0.00633**	0.0243	0.00527	1	7/7/2008	J
n-Butylbenzene	BQL	0.00485	0.00093	1	7/7/2008	
sec-Butylbenzene	BQL	0.00485	0.00098	1	7/7/2008	
tert-Butylbenzene	BQL	0.00485	0.00109	1	7/7/2008	
Carbon disulfide	**0.00289**	0.00485	0.00260	1	7/7/2008	J
Carbon tetrachloride	BQL	0.00485	0.00099	1	7/7/2008	
Chlorobenzene	BQL	0.00485	0.00115	1	7/7/2008	
Chloroethane	BQL	0.00485	0.00154	1	7/7/2008	
Chloroform	BQL	0.00485	0.00116	1	7/7/2008	
Chloromethane	BQL	0.00485	0.00110	1	7/7/2008	
2-Chlorotoluene	BQL	0.00485	0.00098	1	7/7/2008	
4-Chlorotoluene	BQL	0.00485	0.00121	1	7/7/2008	
Dibromochloromethane	BQL	0.00485	0.00134	1	7/7/2008	
1,2-Dibromo-3-chloropropane	BQL	0.0243	0.00141	1	7/7/2008	
Dibromomethane	BQL	0.00485	0.00146	1	7/7/2008	
1,2-Dibromoethane (EDB)	BQL	0.00485	0.00110	1	7/7/2008	
1,2-Dichlorobenzene	BQL	0.00485	0.00125	1	7/7/2008	
1,3-Dichlorobenzene	BQL	0.00485	0.00124	1	7/7/2008	
1,4-Dichlorobenzene	BQL	0.00485	0.00102	1	7/7/2008	
trans-1,4-Dichloro-2-butene	BQL	0.0243	0.00134	1	7/7/2008	
1,1-Dichloroethane	BQL	0.00485	0.00103	1	7/7/2008	
1,1-Dichloroethene	BQL	0.00485	0.00144	1	7/7/2008	
1,2-Dichloroethane	BQL	0.00485	0.00128	1	7/7/2008	
cis-1,2-Dichloroethene	BQL	0.00485	0.00124	1	7/7/2008	
trans-1,2-dichloroethene	BQL	0.00485	0.00110	1	7/7/2008	
1,2-Dichloropropane	BQL	0.00485	0.00114	1	7/7/2008	
1,3-Dichloropropane	BQL	0.00485	0.00109	1	7/7/2008	
2,2-Dichloropropane	BQL	0.00485	0.00116	1	7/7/2008	
1,1-Dichloropropene	BQL	0.00485	0.00152	1	7/7/2008	
cis-1,3-Dichloropropene	BQL	0.00485	0.00081	1	7/7/2008	
trans-1,3-Dichloropropene	BQL	0.00485	0.00093	1	7/7/2008	
Dichlorodifluoromethane	BQL	0.00485	0.00128	1	7/7/2008	
Diisopropyl ether (DIPE)	BQL	0.00485	0.00110	1	7/7/2008	
Ethylbenzene	BQL	0.00485	0.00084	1	7/7/2008	
Hexachlorobutadiene	BQL	0.00485	0.00095	1	7/7/2008	
2-Hexanone	BQL	0.00485	0.00314	1	7/7/2008	
Iodomethane	BQL	0.00485	0.00105	1	7/7/2008	

Results for Volatiles
by GCMS 8260-5035

Client Sample ID: USTAS4151-1-SB03A
Client Project ID: AS4151-1
Lab Sample ID G128-2211-1B
Lab Project ID: G128-2211
Report Basis: Dry Weight

Analyzed By: MJC
Date Collected: 06-30-2008 13:00
Date Received: 6/30/2008
Matrix: Soil
Sample Amount: 6.40 g
%Solids: 80.5

Report Name Compound	Result MG/KG	Quantitation Limit MG/KG	MDL MG/KG	Dilution Factor	Date Analyzed	Flag
Isopropylbenzene	BQL	0.00485	0.00086	1	7/7/2008	
4-Isopropyltoluene	BQL	0.00485	0.00104	1	7/7/2008	
Methylene chloride	BQL	0.0194	0.00115	1	7/7/2008	
4-Methyl-2-pentanone	BQL	0.00485	0.00449	1	7/7/2008	
Methyl-tert-butyl ether (MTBE)	BQL	0.00485	0.00108	1	7/7/2008	
Naphthalene	BQL	0.00485	0.00083	1	7/7/2008	
n-Propyl benzene	BQL	0.00485	0.00122	1	7/7/2008	
Styrene	BQL	0.00485	0.00107	1	7/7/2008	
1,1,1,2-Tetrachloroethane	BQL	0.00485	0.00099	1	7/7/2008	
1,1,2,2-Tetrachloroethane	BQL	0.00485	0.00110	1	7/7/2008	
Tetrachloroethene	BQL	0.00485	0.00089	1	7/7/2008	
Toluene	BQL	0.00485	0.00097	1	7/7/2008	
1,2,3-Trichlorobenzene	BQL	0.00485	0.00101	1	7/7/2008	
1,2,4-Trichlorobenzene	BQL	0.00485	0.00100	1	7/7/2008	
Trichloroethene	BQL	0.00485	0.00093	1	7/7/2008	
1,1,1-Trichloroethane	BQL	0.00485	0.00110	1	7/7/2008	
1,1,2-Trichloroethane	BQL	0.00485	0.00159	1	7/7/2008	
Trichlorofluoromethane	BQL	0.00485	0.00100	1	7/7/2008	
1,2,3-Trichloropropane	BQL	0.00485	0.00120	1	7/7/2008	
1,2,4-Trimethylbenzene	BQL	0.00485	0.00122	1	7/7/2008	
1,3,5-Trimethylbenzene	BQL	0.00485	0.00111	1	7/7/2008	
Vinyl chloride	BQL	0.00485	0.00132	1	7/7/2008	
m-,p-Xylene	BQL	0.00970	0.00186	1	7/7/2008	
o-Xylene	BQL	0.00485	0.00094	1	7/7/2008	

	Spike Added	Spike Result	Percent Recovered
1,2-Dichloroethane-d4	0.05	0.0602	120
Toluene-d8	0.05	0.0484	97
4-Bromofluorobenzene	0.05	0.0356	71

Comments:

Flags:

Analyst: _____

Reviewed By: _____

SGS ENVIRONMENTAL SERVICES, INC.

Results for Volatiles
by GCMS 8260-5035

Client Sample ID: Method Blank
Client Project ID:
Lab Sample ID VBLK9070708B
Lab Project ID:
Report Basis: Dry Weight

Analyzed By: MJC
Date Collected:
Date Received:
Matrix: Soil
Sample Amount: 5 g
%Solids: 100.0

Report Name Compound	Result UG/KG	Quantitation Limit UG/KG	MDL UG/KG	Dilution Factor	Date Analyzed	Flag
Acetone	BQL	50.0	6.91	1	7/7/2008	
Benzene	BQL	5.00	1.07	1	7/7/2008	
Bromobenzene	BQL	5.00	1.03	1	7/7/2008	
Bromochloromethane	BQL	5.00	1.72	1	7/7/2008	
Bromodichloromethane	BQL	5.00	0.992	1	7/7/2008	
Bromoform	BQL	5.00	1.00	1	7/7/2008	
Bromomethane	BQL	5.00	1.05	1	7/7/2008	
2-Butanone	BQL	25.0	5.43	1	7/7/2008	
n-Butylbenzene	BQL	5.00	0.955	1	7/7/2008	
sec-Butylbenzene	BQL	5.00	1.01	1	7/7/2008	
tert-Butylbenzene	BQL	5.00	1.12	1	7/7/2008	
Carbon disulfide	BQL	5.00	2.68	1	7/7/2008	
Carbon tetrachloride	BQL	5.00	1.02	1	7/7/2008	
Chlorobenzene	BQL	5.00	1.19	1	7/7/2008	
Chloroethane	BQL	5.00	1.59	1	7/7/2008	
Chloroform	BQL	5.00	1.20	1	7/7/2008	
Chloromethane	BQL	5.00	1.13	1	7/7/2008	
2-Chlorotoluene	BQL	5.00	1.01	1	7/7/2008	
4-Chlorotoluene	BQL	5.00	1.25	1	7/7/2008	
Dibromochloromethane	BQL	5.00	1.38	1	7/7/2008	
1,2-Dibromo-3-chloropropane	BQL	25.0	1.45	1	7/7/2008	
Dibromomethane	BQL	5.00	1.51	1	7/7/2008	
1,2-Dibromoethane (EDB)	BQL	5.00	1.13	1	7/7/2008	
1,2-Dichlorobenzene	BQL	5.00	1.29	1	7/7/2008	
1,3-Dichlorobenzene	BQL	5.00	1.28	1	7/7/2008	
1,4-Dichlorobenzene	BQL	5.00	1.05	1	7/7/2008	
trans-1,4-Dichloro-2-butene	BQL	25.0	1.38	1	7/7/2008	
1,1-Dichloroethane	BQL	5.00	1.06	1	7/7/2008	
1,1-Dichloroethene	BQL	5.00	1.48	1	7/7/2008	
1,2-Dichloroethane	BQL	5.00	1.32	1	7/7/2008	
cis-1,2-Dichloroethene	BQL	5.00	1.28	1	7/7/2008	
trans-1,2-dichloroethene	BQL	5.00	1.13	1	7/7/2008	
1,2-Dichloropropane	BQL	5.00	1.18	1	7/7/2008	
1,3-Dichloropropane	BQL	5.00	1.12	1	7/7/2008	
2,2-Dichloropropane	BQL	5.00	1.20	1	7/7/2008	
1,1-Dichloropropene	BQL	5.00	1.57	1	7/7/2008	
cis-1,3-Dichloropropene	BQL	5.00	0.833	1	7/7/2008	
trans-1,3-Dichloropropene	BQL	5.00	0.963	1	7/7/2008	
Dichlorodifluoromethane	BQL	5.00	1.32	1	7/7/2008	
Diisopropyl ether (DIPE)	BQL	5.00	1.13	1	7/7/2008	
Ethylbenzene	BQL	5.00	0.866	1	7/7/2008	
Hexachlorobutadiene	BQL	5.00	0.975	1	7/7/2008	
2-Hexanone	BQL	5.00	3.24	1	7/7/2008	
Iodomethane	BQL	5.00	1.08	1	7/7/2008	

SGS ENVIRONMENTAL SERVICES, INC.

Results for Volatiles
by GCMS 8260-5035

Client Sample ID: Method Blank
Client Project ID:
Lab Sample ID VBLK9070708B
Lab Project ID:
Report Basis: Dry Weight

Analyzed By: MJC
Date Collected:
Date Received:
Matrix: Soil
Sample Amount: 5 g
%Solids: 100.0

Report Name Compound	Result UG/KG	Quantitation Limit UG/KG	MDL UG/KG	Dilution Factor	Date Analyzed	Flag
Isopropylbenzene	BQL	5.00	0.888	1	7/7/2008	
4-Isopropyltoluene	BQL	5.00	1.07	1	7/7/2008	
Methylene chloride	BQL	20.0	1.19	1	7/7/2008	
4-Methyl-2-pentanone	BQL	5.00	4.63	1	7/7/2008	
Methyl-tert-butyl ether (MTBE)	BQL	5.00	1.11	1	7/7/2008	
Naphthalene	BQL	5.00	0.850	1	7/7/2008	
n-Propyl benzene	BQL	5.00	1.26	1	7/7/2008	
Styrene	BQL	5.00	1.10	1	7/7/2008	
1,1,1,2-Tetrachloroethane	BQL	5.00	1.02	1	7/7/2008	
1,1,2,2-Tetrachloroethane	BQL	5.00	1.13	1	7/7/2008	
Tetrachloroethene	BQL	5.00	0.916	1	7/7/2008	
Toluene	BQL	5.00	0.997	1	7/7/2008	
1,2,3-Trichlorobenzene	BQL	5.00	1.04	1	7/7/2008	
1,2,4-Trichlorobenzene	**1.14**	5.00	1.03	1	7/7/2008	J
Trichloroethene	BQL	5.00	0.954	1	7/7/2008	
1,1,1-Trichloroethane	BQL	5.00	1.13	1	7/7/2008	
1,1,2-Trichloroethane	BQL	5.00	1.64	1	7/7/2008	
Trichlorofluoromethane	BQL	5.00	1.03	1	7/7/2008	
1,2,3-Trichloropropane	BQL	5.00	1.24	1	7/7/2008	
1,2,4-Trimethylbenzene	BQL	5.00	1.26	1	7/7/2008	
1,3,5-Trimethylbenzene	BQL	5.00	1.14	1	7/7/2008	
Vinyl chloride	BQL	5.00	1.36	1	7/7/2008	
m-,p-Xylene	BQL	10.0	1.92	1	7/7/2008	
o-Xylene	BQL	5.00	0.969	1	7/7/2008	

	Spike Added	Spike Result	Percent Recovered
1,2-Dichloroethane-d4	50	47.4	95
Toluene-d8	50	49.3	99
4-Bromofluorobenzene	50	48	96

Comments:

Flags:

Analyst: _____

Reviewed By: _____

LABORATORY CONTROL SAMPLE/LABORATORY CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: SGS Environmental — Dilution: 1

Lab Code: NC00919 — Matrix: Soil

LCS: LCS9070708A — ilename: 0707904.D — Date Analyzed: 07/07/08 12:42

LCSD: LCS9070708B — ilename: 0707905.D — Date Analyzed: 07/07/08 13:08

COMPOUND	LCS SPIKE (µg/kg)	LCS CONC (µg/kg)	LCS % REC #	LCSD SPIKE (µg/kg)	LCSD CONC (µg/kg)	LCSD % REC #	% RPD	QC LIMITS RPD	QC LIMITS REC
acetone	75.0	65.2	87.0	75.0	68.3	91.0	4.52	30	16.7-286
acrolein	300	340	113	300	364	121	6.73	30	16.7-226
acrylonitrile	300	284	94.8	300	280	93.4	1.44	30	13.3-201
benzene	30.0	28.9	96.3	30.0	28.8	96.1	0.208	30	68.6-132
bromobenzene	30.0	31.1	104	30.0	31.1	104	0.0642	30	56.7-146
bromochloromethane	30.0	31.3	104	30.0	31.3	104	0.032	30	52.5-154
bromodichloromethane	30.0	27.8	92.5	30.0	28.0	93.3	0.897	30	65.4-137
bromoform	30.0	31.2	104	30.0	31.6	105	1.50	30	48.3-147
bromomethane	30.0	23.7	78.9	30.0	40.7	136	53.0*	30	16.7-246
2-butanone	75.0	69.7	93.0	75.0	69.4	92.6	0.417	30	16.7-314
n-butylbenzene	30.0	25.3	84.3	30.0	24.5	81.6	3.21	30	58.4-135
sec-butylbenzene	30.0	28.2	94.1	30.0	27.8	92.8	1.39	30	57.2-136
tert-butylbenzene	30.0	28.3	94.4	30.0	27.8	92.8	1.71	30	50.8-139
Carbon disulfide	30.0	26.1	87.1	30.0	27.2	90.6	3.90	30	16.7-276
carbon tetrachloride	30.0	28.7	95.6	30.0	28.7	95.7	0.0697	30	61.1-141
chlorobenzene	30.0	30.5	102	30.0	30.4	101	0.985	30	63.0-129
chloroethane	30.0	26.4	88.2	30.0	31.0	103	15.7	30	22.5-200
2-chloroethyl vinyl ether	300	0.00	0.00*	300	0.00	0.00*	-	30	16.7-275
chloroform	30.0	28.5	95.0	30.0	28.2	93.9	1.09	30	65.0-137
chloromethane	30.0	27.2	90.7	30.0	27.3	91.0	0.257	30	16.7-182
2-chlorotoluene	30.0	28.4	94.7	30.0	28.4	94.7	0.00	30	61.1-138
4-chlorotoluene	30.0	28.0	93.4	30.0	27.6	92.0	1.51	30	63.8-134
dibromochloromethane	30.0	30.1	100	30.0	30.7	102	1.74	30	56.0-144
1,2-dibromo-3-chloropropane	150	133	88.5	150	137	91.6	3.42	30	16.7-213
1,2-dibromomethane	30.0	30.6	102	30.0	30.8	103	0.553	30	58.8-139
dibromomethane	30.0	28.5	94.9	30.0	29.0	96.7	1.81	30	54.1-154
1,2-dichlorobenzene	30.0	28.1	93.8	30.0	28.1	93.6	0.249	30	61.5-138
1,3-dichlorobenzene	30.0	28.2	94.1	30.0	27.8	92.6	1.64	30	61.5-138
1,4-dichlorobenzene	30.0	28.7	95.5	30.0	28.2	93.9	1.72	30	61.1-138
trans-1,4-Dichloro-2-butene	150	142	94.4	150	140	93.1	1.46	30	16.7-212
dichlorodifluoromethane	30.0	30.6	102	30.0	30.5	102	0.328	30	25.4-165
1,1-dichloroethane	30.0	28.0	93.4	30.0	28.0	93.5	0.0714	30	62.4-140
1,2-dichloroethane	30.0	28.0	93.3	30.0	28.2	94.1	0.818	30	55.3-152
1,1-dichloroethene	30.0	27.2	90.8	30.0	29.1	97.1	6.70	30	65.4-134
cis-1,2-dichloroethene	30.0	30.6	102	30.0	30.5	102	0.262	30	63.8-138
trans-1,2-dichloroethene	30.0	27.8	92.6	30.0	28.2	94.2	1.64	30	63.3-139
1,2-dichloropropane	30.0	28.7	95.5	30.0	28.7	95.6	0.105	30	60.0-139
1,3-dichloropropane	30.0	29.2	97.5	30.0	29.7	99.0	1.46	30	62.3-136
2,2-dichloropropane	30.0	29.1	97.1	30.0	28.9	96.4	0.689	30	62.5-140
1,1-dichloropropene	30.0	29.4	98.2	30.0	29.4	98.2	0.034	30	60.9-136
cis-1,3-dichloropropene	30.0	29.6	98.8	30.0	29.7	98.9	0.135	30	59.8-141

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 1 out of 72 outside of limits

Spike Recovery: 2 out of 144 outside of limits

COMMENTS: _____

_____

LABORATORY CONTROL SAMPLE/LABORATORY CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: SGS Environmental — Dilution: 1

Lab Code: NC00919 — Matrix: Soil

LCS: LCS9070708A — Filename: 0707904.D — Date Analyzed: 07/07/08 12:42

LCSD: LCS9070708B — Filename: 0707905.D — Date Analyzed: 07/07/08 13:08

COMPOUND	LCS SPIKE (µg/kg)	LCS CONC (µg/kg)	LCS % REC #	LCSD SPIKE (µg/kg)	LCSD CONC (µg/kg)	LCSD % REC #	% RPD	QC LIMITS RPD	QC LIMITS REC
trans-1,3-dichloropropene	30.0	29.4	98.2	30.0	29.0	96.6	1.64	30	7.27-173
Diisopropyl ether	30.0	27.3	91.1	30.0	26.4	87.9	3.61	30	9.01-172
ethylbenzene	30.0	28.0	93.3	30.0	27.8	92.7	0.681	30	16.7-187
hexachlorobutadiene	30.0	29.1	97.1	30.0	29.3	97.6	0.548	30	16.7-173
2-hexanone	75.0	70.9	94.6	75.0	71.3	95.1	0.576	30	16.7-304
Iodomethane	30.0	33.2	111	30.0	33.3	111	0.210	30	16.7-200
isopropylbenzene	30.0	26.5	88.4	30.0	26.1	87.1	1.52	30	6.43-167
4-isopropyltoluene	30.0	28.1	93.7	30.0	27.7	92.4	1.32	30	6.97-170
Methyl-tert-butyl ether	30.0	26.9	89.8	30.0	28.3	94.5	5.06	30	10.7-173
methylene chloride	30.0	18.2	60.6	30.0	18.5	61.7	1.74	30	8.58-169
4-methyl-2-pentanone	75.0	73.4	97.9	75.0	75.4	100	2.69	30	16.7-293
naphthalene	30.0	27.3	90.9	30.0	30.1	100	9.90	30	16.7-175
n-propyl benzene	30.0	27.6	92.0	30.0	27.3	91.1	0.983	30	7.25-172
styrene	30.0	26.8	89.5	30.0	26.4	88.0	1.69	30	10.2-168
1,1,1,2-tetrachloroethane	30.0	30.4	101	30.0	30.7	102	0.883	30	5.87-177
1,1,2,2-tetrachloroethane	30.0	28.8	95.9	30.0	29.6	98.8	2.91	30	10.9-168
tetrachloroethene	30.0	31.7	106	30.0	31.5	105	0.538	30	16.7-195
toluene	30.0	29.8	99.2	30.0	29.9	99.7	0.503	30	26.6-159
1,2,3-trichlorobenzene	30.0	27.1	90.3	30.0	29.7	99.0	9.15	30	4.64-169
1,2,4-trichlorobenzene	30.0	27.9	93.0	30.0	29.0	96.8	4.04	30	6.55-165
1,1,1-trichloroethane	30.0	28.6	95.3	30.0	29.1	97.1	1.84	30	8.40-173
1,1,2-trichloroethane	30.0	29.1	96.9	30.0	29.9	99.7	2.88	30	12.2-166
trichloroethene	30.0	29.2	97.4	30.0	30.2	101	3.63	30	24.0-158
trichlorofluoromethane	30.0	28.4	94.7	30.0	25.9	86.2	9.40	30	5.64-183
1,2,3-trichloropropane	30.0	29.5	98.2	30.0	29.5	98.4	0.136	30	16.7-186
1,2,4-trimethylbenzene	30.0	27.9	93.0	30.0	27.2	90.8	2.39	30	8.60-168
1,3,5-trimethylbenzene	30.0	27.6	91.9	30.0	27.2	90.5	1.54	30	8.09-168
Vinyl acetate	75.0	71.2	95.0	75.0	68.7	91.6	3.59	30	16.7-225
vinyl chloride	30.0	29.4	97.8	30.0	29.8	99.4	1.59	30	7.56-178
m/p-xylene	60.0	56.2	93.8	60.0	54.2	90.4	3.71	30	8.91-169
o-xylene	30.0	28.5	95.1	30.0	28.6	95.5	0.420	30	9.45-167

System Monitoring Compound Results

		LCS SPIKE (µg/kg)	LCS CONC (µg/kg)	LCS % REC #	LCSD SPIKE (µg/kg)	LCSD CONC (µg/kg)	LCSD % REC #	QC LIMITS REC
460-00-4	4-Bromofluorobenzene	50	50.77	102	50	50.7	101	49.1-151
17060-07-0	1,2-Dichloroethane-d4	50	48.28	96.6	50	47.91	95.8	37.8-170
2037-26-5	Toluene-d8	50	50.21	100	50	50.16	100	58.8-144

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 1 out of 72 outside of limits

Spike Recovery: 2 out of 144 outside of limits

COMMENTS: _____

Analyst: _____ Reviewed by: _____

SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: SGS Environmental — Inst: MSD9

Lab Code: NC00919 — Batch: 9070708

EPA Sample No.: g760-8-3a, g760-8-3a, g760-8-3a — Dilution: 1

Filenames: 0707911.D, 0707912.D, 0707913.D — Matrix: Soil

COMPOUND	SAMPLE CONC (µg/kg)	MS SPIKE (µg/kg)	MS CONC (µg/kg)	MS % REC #	MSD SPIKE (µg/kg)	MSD CONC (µg/kg)	MSD % REC #	% RPD	QC LIMITS RPD	QC LIMITS REC
acetone	BQL	30.6	71.1	232	30.6	71.7	234	0.744	30	6.81-355
acrolein	BQL	306	318	104	306	311	101	2.47	30	0.00-6510
acrylonitrile	BQL	306	300	97.9	306	293	95.6	2.42	30	0.00-5670
benzene	BQL	30.6	29.9	97.5	30.6	28.5	93.0	4.76	30	74.8-133
bromobenzene	BQL	30.6	30.2	98.6	30.6	29.1	94.9	3.76	30	66.1-140
bromochloromethane	BQL	30.6	30.2	98.6	30.6	29.0	94.5	4.25	30	85.1-136
bromodichloromethane	BQL	30.6	29.4	96.0	30.6	27.9	91.1	5.24	30	77.4-140
bromoform	BQL	30.6	29.5	96.4	30.6	28.4	92.9	3.70	30	74.7-161
bromomethane	BQL	30.6	32.6	106	30.6	29.4	96.0	10.1	30	30.4-127
2-butanone	BQL	30.6	75.4	246	30.6	73.2	239	2.97	30	40.9-256
n-butylbenzene	BQL	30.6	26.4	86.2	30.6	24.0	78.2	9.77	30	41.2-147
sec-butylbenzene	BQL	30.6	29.9	97.7	30.6	27.4	89.4	8.88	30	56.7-138
tert-butylbenzene	BQL	30.6	30.0	97.8	30.6	27.7	90.4	7.87	30	60.5-142
Carbon disulfide	BQL	30.6	28.1	91.8	30.6	27.2	88.9	3.14	30	64.3-145
carbon tetrachloride	BQL	30.6	29.9	97.6	30.6	28.4	92.7	5.18	30	64.2-142
chlorobenzene	BQL	30.6	29.3	95.5	30.6	27.9	91.0	4.90	30	66.3-135
chloroethane	BQL	30.6	35.0	114	30.6	33.8	110	3.50	30	20.7-182
2-chloroethyl vinyl ether	BQL	30.6	0.00	0.00*	30.6	0.00	0.00*	--	30	16.7-283
chloroform	BQL	30.6	29.8	97.3	30.6	28.5	93.0	4.55	30	71.1-143
chloromethane	BQL	30.6	28.8	93.8	30.6	29.3	95.7	1.93	30	69.1-138
2-chlorotoluene	BQL	30.6	30.4	99.4	30.6	28.9	94.5	5.06	30	59.8-144
4-chlorotoluene	BQL	30.6	30.1	98.2	30.6	28.1	91.7	6.81	30	59.0-141
dibromochloromethane	BQL	30.6	28.9	94.3	30.6	27.8	90.7	3.96	30	78.1-141
1,2-dibromo-3-chloropropane	BQL	153	143	93.4	153	138	90.0	3.70	30	43.4-229
1,2-dibromomethane	BQL	30.6	29.2	95.2	30.6	28.0	91.3	4.11	30	78.3-148
dibromomethane	BQL	30.6	29.4	96.1	30.6	28.4	92.6	3.71	30	80.0-150
1,2-dichlorobenzene	BQL	30.6	29.4	95.9	30.6	27.4	89.3	7.13	30	57.5-148
1,3-dichlorobenzene	BQL	30.6	29.7	96.9	30.6	27.8	90.8	6.57	30	55.0-145
1,4-dichlorobenzene	BQL	30.6	30.1	98.3	30.6	27.8	90.9	7.79	30	53.4-146
trans-1,4-Dichloro-2-butene	BQL	153	149	97.1	153	144	93.8	3.39	30	48.9-211
dichlorodifluoromethane	BQL	30.6	31.9	104	30.6	32.5	106	1.74	30	81.6-130
1,1-dichloroethane	BQL	30.6	30.4	99.3	30.6	29.5	96.3	3.07	30	71.6-139
1,2-dichloroethane	BQL	30.6	29.1	94.9	30.6	28.0	91.4	3.83	30	72.9-146
1,1-dichloroethene	BQL	30.6	28.2	91.9	30.6	27.9	91.1	0.874	30	72.0-135
cis-1,2-dichloroethene	BQL	30.6	29.9	97.6	30.6	28.6	93.3	4.44	30	76.9-134
trans-1,2-dichloroethene	BQL	30.6	29.3	95.8	30.6	28.1	91.6	4.41	30	72.0-135
1,2-dichloropropane	BQL	30.6	29.9	97.5	30.6	29.2	95.4	2.18	30	76.1-136
1,3-dichloropropane	BQL	30.6	29.3	95.8	30.6	28.2	92.0	4.01	30	83.2-137
2,2-dichloropropane	BQL	30.6	29.7	97.0	30.6	28.4	92.7	4.60	30	58.0-150
1,1-dichloropropene	BQL	30.6	30.2	98.6	30.6	28.6	93.5	5.31	30	68.5-137
cis-1,3-dichloropropene	BQL	30.6	30.0	98.0	30.6	28.8	94.0	4.13	30	72.1-146

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

COMMENTS: _____

3B

SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: SGS Environmental — Inst: MSD9

Lab Code: NC00919 — Batch: 9070708

EPA Sample No.: g760-8-3a, g760-8-3a, g760-8-3a — Dilution: 1

Filenames: 0707911.D, 0707912.D, 0707913.D — Matrix: Soil

COMPOUND	SAMPLE CONC (µg/kg)	MS SPIKE (µg/kg)	MS CONC (µg/kg)	MS % REC #	MSD SPIKE (µg/kg)	MSD CONC (µg/kg)	MSD % REC #	% RPD	QC LIMITS RPD	QC LIMITS REC
trans-1,3-dichloropropene	BQL	30.6	29.1	95.0	30.6	28.0	91.4	3.83	30	44.7-144
Diisopropyl ether	BQL	30.6	29.5	96.2	30.6	28.4	92.7	3.64	30	79.4-122
ethylbenzene	BQL	30.6	30.4	99.2	30.6	27.9	91.2	8.37	30	73.8-126
hexachlorobutadiene	BQL	30.6	26.2	85.6	30.6	22.6	73.9	14.6	30	51.8-134
2-hexanone	BQL	30.6	67.7	221*	30.6	66.8	218*	1.43	30	41.6-111
Iodomethane	BQL	30.6	29.8	97.4	30.6	31.2	102	4.55	30	40.6-126
isopropylbenzene	BQL	30.6	27.2	88.6	30.6	25.7	83.8	5.64	30	74.3-123
4-isopropyltoluene	BQL	30.6	29.3	95.7	30.6	27.2	88.9	7.37	30	74.6-122
Methyl-tert-butyl ether	BQL	30.6	27.2	88.8	30.6	26.8	87.6	1.32	30	66.5-136
methylene chloride	BQL	122	19.4	15.9*	122	18.2	14.8*	6.78	30	48.6-155
4-methyl-2-pentanone	BQL	30.6	73.6	240*	30.6	72.3	236*	1.85	30	6.88-166
naphthalene	BQL	30.6	24.7	80.7	30.6	24.8	80.8	0.0825	30	55.1-140
n-propyl benzene	BQL	30.6	29.8	97.2	30.6	27.6	90.0	7.69	30	71.6-128
styrene	BQL	30.6	26.8	87.6	30.6	26.9	87.7	0.114	30	73.2-123
1,1,1,2-tetrachloroethane	BQL	30.6	29.4	95.9	30.6	28.0	91.4	4.73	30	69.4-120
1,1,2,2-tetrachloroethane	BQL	30.6	29.7	96.9	30.6	28.4	92.9	4.22	30	75.7-136
tetrachloroethene	BQL	30.6	31.4	102	30.6	30.8	101	1.71	30	45.8-153
toluene	BQL	30.6	29.7	97.0	30.6	27.6	90.1	7.45	30	66.4-128
1,2,3-trichlorobenzene	BQL	30.6	24.9	81.4	30.6	23.8	77.7	4.57	30	61.0-126
1,2,4-trichlorobenzene	BQL	30.6	25.7	83.9	30.6	23.6	77.2	8.40	30	60.6-125
1,1,1-trichloroethane	BQL	30.6	29.9	97.6	30.6	28.9	94.3	3.40	30	78.4-121
1,1,2-trichloroethane	BQL	30.6	29.3	95.7	30.6	28.4	92.5	3.33	30	64.8-128
trichloroethene	BQL	30.6	29.8	97.2	30.6	29.3	95.7	1.56	30	84.9-136
trichlorofluoromethane	BQL	30.6	29.5	96.3	30.6	29.5	96.3	0.0346	30	76.8-132
1,2,3-trichloropropane	BQL	30.6	30.0	98.1	30.6	28.7	93.8	4.48	30	10.0-218
1,2,4-trimethylbenzene	BQL	30.6	29.8	97.2	30.6	28.3	92.3	5.14	30	31.0-172
1,3,5-trimethylbenzene	BQL	30.6	29.7	96.8	30.6	27.8	90.8	6.47	30	67.7-132
Vinyl acetate	BQL	76.6	63.2	82.6	76.6	56.0	73.0	12.2	30	0.00-355
vinyl chloride	BQL	30.6	30.5	99.5	30.6	30.9	101	1.53	30	68.1-137
m/p-xylene	BQL	61.3	53.8	87.8	61.3	54.4	88.8	1.11	30	79.8-118
o-xylene	BQL	30.6	28.9	94.3	30.6	28.3	92.5	2.00	30	80.0-121

System Monitoring Compound Results

		MS SPIKE (µg/kg)	MS CONC (µg/kg)	MS % REC #	MSD SPIKE (µg/kg)	MSD CONC (µg/kg)	MSD % REC #	QC LIMITS REC
460-00-4	4-Bromofluorobenzene	50	51.7	103	50	51.57	103	49.1-151
17060-07-0	1,2-Dichloroethane-d4	50	50.35	101	50	50.45	101	37.8-170
2037-26-5	Toluene-d8	50	50.96	102	50	50.68	101	58.8-144

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

MS Spike Recovery: 4 failure(s) out of 72. MSD Spike Recovery: 4 failure(s) out of 72.

RPD: 1 out of 72 outside of limits

COMMENTS: _____

Analyst: _____ Reviewed by: _____

SGS ENVIRONMENTAL SERVICES, INC.

Results for Semivolatiles by GCMS 8270

Client Sample ID: USTAS4151-1-SB03A
Client Project ID: AS4151-1
Lab Sample ID: G128-2211-1I
Lab Project ID: G128-2211
Report Basis: Dry weight

Analyzed By: DES
Date Collected: 6/30/2008 13:00
Date Received: 6/30/2008
Date Extracted: 7/7/2008
Matrix: Soil
% Solids: 80.53

Compound	Result mg/Kg	RL mg/Kg	MDL mg/Kg	Dilution Factor	Date Analyzed	Flag
Acenaphthene	**0.446**	0.381	0.055	1	7/9/2008	
Acenaphthylene	BQL	0.381	0.051	1	7/9/2008	
Anthracene	BQL	0.381	0.055	1	7/9/2008	
Benzo[a]anthracene	BQL	0.381	0.066	1	7/9/2008	
Benzo[a]pyrene	BQL	0.381	0.058	1	7/9/2008	
Benzo[b]fluoranthene	BQL	0.381	0.067	1	7/9/2008	
Benzo[g,h,i]perylene	BQL	0.381	0.104	1	7/9/2008	
Benzo[k]fluoranthene	BQL	0.381	0.074	1	7/9/2008	
Benzoic Acid	BQL	0.763	0.763	1	7/9/2008	
Bis(2-chloroethoxy)methane	BQL	0.381	0.057	1	7/9/2008	
Bis(2-chloroethyl)ether	BQL	0.381	0.046	1	7/9/2008	
Bis(2-chloroisopropyl)ether	BQL	0.381	0.048	1	7/9/2008	
Bis(2-ethylhexyl)phthalate	BQL	0.381	0.051	1	7/9/2008	
4-bromophenyl phenyl ether	BQL	0.381	0.065	1	7/9/2008	
Butylbenzylphthalate	BQL	0.381	0.059	1	7/9/2008	
2-Chloronaphthalene	BQL	0.381	0.060	1	7/9/2008	
2-Chlorophenol	BQL	0.381	0.119	1	7/9/2008	
4-Chloro-3-methylphenol	BQL	0.381	0.119	1	7/9/2008	
4-Chloroaniline	BQL	1.91	0.291	1	7/9/2008	
4-Chlorophenyl phenyl ether	BQL	0.381	0.056	1	7/9/2008	
Chrysene	**0.053**	0.381	0.041	1	7/9/2008	J
Dibenzo[a,h]anthracene	BQL	0.381	0.107	1	7/9/2008	
Dibenzofuran	**0.290**	0.381	0.069	1	7/9/2008	J
Di-n-Butylphthalate	BQL	0.381	0.045	1	7/9/2008	
1,2-Dichlorobenzene	BQL	0.381	0.042	1	7/9/2008	
1,3-Dichlorobenzene	BQL	0.381	0.042	1	7/9/2008	
1,4-Dichlorobenzene	BQL	0.381	0.043	1	7/9/2008	
3,3'-Dichlorobenzidine	BQL	0.763	0.096	1	7/9/2008	
2,4-Dichlorophenol	BQL	0.381	0.137	1	7/9/2008	
Diethylphthalate	BQL	0.381	0.049	1	7/9/2008	
Dimethylphthalate	BQL	0.381	0.046	1	7/9/2008	
2,4-Dimethylphenol	BQL	0.381	0.273	1	7/9/2008	
Di-n-octylphthalate	BQL	0.381	0.063	1	7/9/2008	
4,6-Dinitro-2-methylphenol	BQL	1.91	0.225	1	7/9/2008	
2,4-Dinitrophenol	BQL	1.91	0.840	1	7/9/2008	
2,4-Dinitrotoluene	BQL	0.381	0.050	1	7/9/2008	
2,6-Dinitrotoluene	BQL	0.381	0.069	1	7/9/2008	
Diphenylamine *	BQL	0.381	0.037	1	7/9/2008	
Fluoranthene	**0.225**	0.381	0.053	1	7/9/2008	J
Fluorene	BQL	0.381	0.047	1	7/9/2008	
Hexachlorobenzene	BQL	0.381	0.059	1	7/9/2008	
Hexachlorobutadiene	BQL	0.381	0.061	1	7/9/2008	
Hexachlorocyclopentadiene	BQL	0.763	0.039	1	7/9/2008	
Hexachloroethane	BQL	0.381	0.034	1	7/9/2008	
Indeno(1,2,3-c,d)pyrene	BQL	0.381	0.098	1	7/9/2008	
Isophorone	BQL	0.381	0.056	1	7/9/2008	
2-Methylnaphthalene	BQL	0.381	0.111	1	7/9/2008	

Results for Semivolatiles by GCMS 8270

Client Sample ID: USTAS4151-1-SB03A
Client Project ID: AS4151-1
Lab Sample ID: G128-2211-1I
Lab Project ID: G128-2211
Report Basis: Dry weight

Analyzed By: DES
Date Collected: 6/30/2008 13:00
Date Received: 6/30/2008
Date Extracted: 7/7/2008
Matrix: Soil
% Solids: 80.53

Compound	Result mg/Kg	RL mg/Kg	MDL mg/Kg	Dilution Factor	Date Analyzed	Flag
2-Methylphenol	BQL	0.381	0.134	1	7/9/2008	
3- & 4-Methylphenol	BQL	0.381	0.129	1	7/9/2008	
Naphthalene	BQL	0.381	0.031	1	7/9/2008	
2-Nitroaniline	BQL	0.381	0.060	1	7/9/2008	
3-Nitroaniline	BQL	1.91	0.393	1	7/9/2008	
4-Nitroaniline	BQL	1.91	0.118	1	7/9/2008	
Nitrobenzene	BQL	0.381	0.052	1	7/9/2008	
2-Nitrophenol	BQL	0.381	0.118	1	7/9/2008	
4-Nitrophenol	BQL	1.91	0.106	1	7/9/2008	
N-Nitrosodi-n-propylamine	BQL	0.381	0.049	1	7/9/2008	
Pentachlorophenol	BQL	1.91	0.100	1	7/9/2008	
Phenanthrene	BQL	0.381	0.044	1	7/9/2008	
Phenol	BQL	0.381	0.105	1	7/9/2008	
Pyrene	**0.156**	0.381	0.073	1	7/9/2008	J
1,2,4-Trichlorobenzene	BQL	0.381	0.048	1	7/9/2008	
2,4,5-Trichlorophenol	BQL	0.381	0.148	1	7/9/2008	
2,4,6-Trichlorophenol	BQL	0.381	0.136	1	7/9/2008	

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	9.1	91
2-Fluorophenol	10	8.7	87
Nitrobenzene-d5	10	9.6	96
Phenol-d6	10	8.9	89
2,4,6-Tribromophenol	10	8.1	81
4-Terphenyl-d14	10	9.8	98

Comments:

* N-Nitrosodiphenylamine is reported as the breakdown product Diphenylamine.

Flags:

BQL = Below Quantitation Limits.
J = Detected below the quantitation limit.

Reviewed By:

Results for Semivolatiles by GCMS 8270

Client Sample ID: Method Blank
Client Project ID:
Lab Sample ID: PB11810
Lab Project ID:
Report Basis: Dry Weight

Analyzed By: DES
Date Collected:
Date Received:
Date Extracted: 7/7/2008
Matrix: SOIL
% Solids: 100

Compound	Result ug/Kg	RL ug/Kg	MDL ug/Kg	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	313	44.7	1	7/9/2008	
Acenaphthylene	BQL	313	41.6	1	7/9/2008	
Anthracene	BQL	313	45.3	1	7/9/2008	
Benzo[a]anthracene	BQL	313	54.1	1	7/9/2008	
Benzo[a]pyrene	BQL	313	47.8	1	7/9/2008	
Benzo[b]fluoranthene	BQL	313	54.7	1	7/9/2008	
Benzo[g,h,i]perylene	BQL	313	85.0	1	7/9/2008	
Benzo[k]fluoranthene	BQL	313	60.3	1	7/9/2008	
Benzoic Acid	BQL	625	625	1	7/9/2008	
Bis(2-chloroethoxy)methane	BQL	313	46.6	1	7/9/2008	
Bis(2-chloroethyl)ether	BQL	313	37.8	1	7/9/2008	
Bis(2-chloroisopropyl)ether	BQL	313	39.1	1	7/9/2008	
Bis(2-ethylhexyl)phthalate	BQL	313	41.9	1	7/9/2008	
4-bromophenyl phenyl ether	BQL	313	52.8	1	7/9/2008	
Butylbenzylphthalate	BQL	313	48.1	1	7/9/2008	
2-Chloronaphthalene	BQL	313	49.1	1	7/9/2008	
2-Chlorophenol	BQL	313	97.8	1	7/9/2008	
4-Chloro-3-methylphenol	BQL	313	97.5	1	7/9/2008	
4-Chloroaniline	BQL	1560	238	1	7/9/2008	
4-Chlorophenyl phenyl ether	BQL	313	45.9	1	7/9/2008	
Chrysene	BQL	313	33.8	1	7/9/2008	
Dibenzo[a,h]anthracene	BQL	313	87.5	1	7/9/2008	
Dibenzofuran	BQL	313	56.9	1	7/9/2008	
Di-n-Butylphthalate	BQL	313	37.2	1	7/9/2008	
1,2-Dichlorobenzene	BQL	313	34.7	1	7/9/2008	
1,3-Dichlorobenzene	BQL	313	34.1	1	7/9/2008	
1,4-Dichlorobenzene	BQL	313	35.3	1	7/9/2008	
3,3'-Dichlorobenzidine	BQL	625	78.8	1	7/9/2008	
2,4-Dichlorophenol	BQL	313	113	1	7/9/2008	
Diethylphthalate	BQL	313	40.3	1	7/9/2008	
Dimethylphthalate	BQL	313	37.8	1	7/9/2008	
2,4-Dimethylphenol	BQL	313	223	1	7/9/2008	
Di-n-octylphthalate	BQL	313	51.6	1	7/9/2008	
4,6-Dinitro-2-methylphenol	BQL	1560	184	1	7/9/2008	
2,4-Dinitrophenol	BQL	1560	688	1	7/9/2008	
2,4-Dinitrotoluene	BQL	313	40.6	1	7/9/2008	
2,6-Dinitrotoluene	BQL	313	56.9	1	7/9/2008	
Diphenylamine *	BQL	313	30.6	1	7/9/2008	
Fluoranthene	BQL	313	43.7	1	7/9/2008	
Fluorene	BQL	313	38.8	1	7/9/2008	
Hexachlorobenzene	BQL	313	48.1	1	7/9/2008	
Hexachlorobutadiene	BQL	313	50.0	1	7/9/2008	
Hexachlorocyclopentadiene	BQL	625	32.2	1	7/9/2008	
Hexachloroethane	BQL	313	28.1	1	7/9/2008	
Indeno(1,2,3-c,d)pyrene	BQL	313	80.0	1	7/9/2008	
Isophorone	BQL	313	45.9	1	7/9/2008	
2-Methylnaphthalene	BQL	313	91.2	1	7/9/2008	

Results for Semivolatiles by GCMS 8270

Client Sample ID: Method Blank
Client Project ID:
Lab Sample ID: PB11810
Lab Project ID:
Report Basis: Dry Weight

Analyzed By: DES
Date Collected:
Date Received:
Date Extracted: 7/7/2008
Matrix: SOIL
% Solids: 100

Compound	Result ug/Kg	RL ug/Kg	MDL ug/Kg	Dilution Factor	Date Analyzed	Flag
2-Methylphenol	BQL	313	110	1	7/9/2008	
3- & 4-Methylphenol	BQL	313	106	1	7/9/2008	
Naphthalene	BQL	313	25.3	1	7/9/2008	
2-Nitroaniline	BQL	313	49.1	1	7/9/2008	
3-Nitroaniline	BQL	1560	322	1	7/9/2008	
4-Nitroaniline	BQL	1560	96.3	1	7/9/2008	
Nitrobenzene	BQL	313	42.2	1	7/9/2008	
2-Nitrophenol	BQL	313	96.9	1	7/9/2008	
4-Nitrophenol	BQL	1560	86.6	1	7/9/2008	
N-Nitrosodi-n-propylamine	BQL	313	39.7	1	7/9/2008	
Pentachlorophenol	BQL	1560	81.6	1	7/9/2008	
Phenanthrene	BQL	313	35.6	1	7/9/2008	
Phenol	BQL	313	85.6	1	7/9/2008	
Pyrene	BQL	313	60.0	1	7/9/2008	
1,2,4-Trichlorobenzene	BQL	313	39.1	1	7/9/2008	
2,4,5-Trichlorophenol	BQL	313	121	1	7/9/2008	
2,4,6-Trichlorophenol	BQL	313	111	1	7/9/2008	

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	9.5	94
2-Fluorophenol	10	7.8	78
Nitrobenzene-d5	10	9.2	92
Phenol-d6	10	8.4	84
2,4,6-Tribromophenol	10	8	80
4-Terphenyl-d14	10	10	100

Comments:

* N-Nitrosodiphenylamine is reported as the breakdown product Diphenylamine.

Flags:

BQL = Below Quantitation Limits.
J = Detected below the quantitation limit.

Reviewed By:

SGS Environmental Services

ORATORY CONTROL SAMPLE SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: SGS Environmental Services, Inc.

Lab Code: NC00919 Case No.: SAS No.: SDG No:

Matrix: (soil/water) SOIL Lab Sample ID: LCS11810

Sample wt/vol: 32 (g) Lab File ID: 0709612.D

Level: (low/med) LOW

% Moisture: 0% Decanted:(Y/N) N Date Analyzed: 07/09/08 14:41

Concentrated Extract Volume: 10000 (µL) Dilution Factor: 1

Injection Volume: 1 (µL) Extraction: (Type) 3541

GPC Cleanup: N

CAS NO.	COMPOUND	SPIKE AMT (µg/kg)	SAMP CONC (µg/kg)	% REC #	QC LIMITS
83-32-9	Acenaphthene	3125	2820	90.1	73.3-108
208-96-8	Acenaphthylene	3125	2860	91.4	76.0-113
120-12-7	Anthracene	3125	2480	79.4	67.6-104
56-55-3	Benzo[a]anthracene	3125	2790	89.4	71.6-113
50-32-8	Benzo[a]pyrene	3125	2730	87.5	68.1-116
205-99-2	Benzo[b]fluoranthene	3125	2810	90.0	61.3-129
191-24-2	Benzo[g,h,i]perylene	3125	3100	99.1	62.4-136
207-08-9	Benzo[k]fluoranthene	3125	2880	92.1	72.8-117
65-85-0	Benzoic Acid	3125	2540	81.3	9.27-93.0
100-51-6	Benzyl Alcohol	3125	1670	53.6*	71.8-108
111-91-1	Bis(2-chloroethoxy)methane	3125	2900	92.8	72.8-110
111-44-4	Bis(2-chloroethyl)ether	3125	2830	90.6	72.1-110
108-60-1	Bis(2-chloroisopropyl)ether	3125	2870	91.7	68.4-107
117-81-7	Bis(2-ethylhexyl)phthalate	3125	2830	90.5	71.1-120
101-55-3	4-bromophenyl phenyl ether	3125	2680	85.6	68.1-107
85-68-7	Butylbenzylphthalate	3125	2880	92.2	70.3-120
106-47-8	4-Chloroaniline	3125	2330	74.5	43.7-101
59-50-7	4-Chloro-3-methylphenol	3125	3080	98.4	76.4-125
91-58-7	2-Chloronaphthalene	3125	2380	76.3	61.2-88.4
95-57-8	2-Chlorophenol	3125	2810	89.9	72.5-108
7005-72-3	4-Chlorophenyl phenyl ether	3125	2730	87.5	69.8-111
218-01-9	Chrysene	3125	2760	88.3	70.0-111
84-74-2	Di-n-Butylphthalate	3125	2840	90.9	72.1-111
117-84-0	Di-n-octylphthalate	3125	2930	93.7	70.4-126
53-70-3	Dibenzo[a,h]anthracene	3125	3030	97.0	64.9-133
132-64-9	Dibenzofuran	3125	2770	88.6	73.7-111
95-50-1	1,2-Dichlorobenzene	3125	2780	89.0	71.0-103
541-73-1	1,3-Dichlorobenzene	3125	2750	88.0	70.0-102
106-46-7	1,4-Dichlorobenzene	3125	2840	90.8	72.2-103
91-94-1	3,3'-Dichlorobenzidine	3125	2800	89.7	64.9-110
120-83-2	2,4-Dichlorophenol	3125	2780	88.8	74.6-115
84-66-2	Diethylphthalate	3125	2790	89.2	63.6-117
105-67-9	2,4-Dimethylphenol	3125	2780	88.9	71.2-112
131-11-3	Dimethylphthalate	3125	2830	90.4	72.9-111
534-52-1	4,6-Dinitro-2-methylphenol	3125	2600	83.1	33.0-122
51-28-5	2,4-Dinitrophenol	3125	2060	65.9	11.2-121
121-14-2	2,4-Dinitrotoluene	3125	2760	88.4	69.5-117
606-20-2	2,6-Dinitrotoluene	3125	2720	87.0	67.2-116
206-44-0	Fluoranthene	3125	2700	86.5	71.2-109
86-73-7	Fluorene	3125	2730	87.3	72.4-112
118-74-1	Hexachlorobenzene	3125	2730	87.3	68.8-109

LABORATORY CONTROL SAMPLE SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: SGS Environmental Services, Inc.

Lab Code: NC00919 Case No.: SAS No.: SDG No:

Matrix: (soil/water) SOIL — Lab Sample ID: LCS11810

Sample wt/vol: 32 (g) — Lab File ID: 0709612.D

Level: (low/med) LOW

% Moisture: 0% Decanted: (Y/N) N — Date Analyzed: 07/09/08 14:41

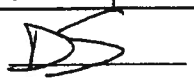
Concentrated Extract Volume: 10000 (µL) — Dilution Factor: 1

Injection Volume: 1 (µL) — Extraction: (Type) 3541

GPC Cleanup: N

CAS NO.	COMPOUND	SPIKE AMT (µg/kg)	SAMP CONC (µg/kg)	% REC #	QC LIMITS
87-68-3	Hexachlorobutadiene	3125	2680	85.9	73.1-114
77-47-4	Hexachlorocyclopentadiene	3125	5980	191	0.00-854
67-72-1	Hexachloroethane	3125	2750	87.9	70.9-106
193-39-5	Indeno(1,2,3-c,d)pyrene	3125	3010	96.3	65.2-135
78-59-1	Isophorone	3125	2570	82.3	76.7-116
90-12-0	1-Methylnaphthalene	3125	2860	91.5	73.1-108
91-57-6	2-Methylnaphthalene	3125	2750	88.0	75.3-113
95-48-7	2-Methylphenol	3125	2670	85.5	69.4-110
108-39-4	4-Methylphenol	6250	5870	94.0	70.0-116
621-64-7	N-Nitrosodi-n-propylamine	3125	2850	91.2	69.7-117
86-30-6	Diphenylamine	3125	2790	89.4	69.1-105
91-20-3	Naphthalene	3125	2880	92.0	78.4-115
88-74-4	2-Nitroaniline	3125	2810	89.8	65.0-109
99-09-2	3-Nitroaniline	3125	2540	81.4	57.4-102
100-01-6	4-Nitroaniline	3125	2660	85.0	62.8-113
98-95-3	Nitrobenzene	3125	2900	92.7	72.7-113
88-75-5	2-Nitrophenol	3125	2810	89.9	71.8-113
100-02-7	4-Nitrophenol	3125	2130	68.3	39.6-116
87-86-5	Pentachlorophenol	3125	1950	62.5	49.8-106
85-01-8	Phenanthrene	3125	2750	88.0	70.9-110
108-95-2	Phenol	3125	2890	92.5	72.1-106
129-00-0	Pyrene	3125	2760	88.3	71.9-112
110-86-1	Pyridine	3125	2310	74.0	31.1-97.3
120-82-1	1,2,4-Trichlorobenzene	3125	2780	89.0	73.6-107
95-95-4	2,4,5-Trichlorophenol	3125	2760	88.4	69.1-114
88-06-2	2,4,6-Trichlorophenol	3125	2680	85.7	71.2-112

System Monitoring Compound Results		Spike Added (µg/kg)	Spike Result (µg/kg)	Percent Rec. (%)	Percent Recovery (%)
118-79-6	2,4,6-Tribromophenol	3125	2560	82.0	41.1-129
321-60-8	2-Fluorobiphenyl	3125	2870	91.8	56.4-116
367-12-4	2-Fluorophenol	3125	2710	86.7	41.8-123
1718-51-0	4-Terphenyl-d14	3125	3190	102	43.8-140
4165-60-0	Nitrobenzene-d5	3125	2970	94.9	46.1-117
13127-88-3	Phenol-d6	3125	2770	88.5	47.9-125

Analyst: 

SGS Environmental Services, Inc.

3D

SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: SGS Environmental Services, Inc.

Lab Code: NC00919 Inst: MSD6

EPA Sample No.: G760-8-8G, G760-8-8H, G760-8-8I Batch: 6070908

Filenames: 0709621.D, 0709625.D, 0709626.D Dilution: 1

COMPOUND	SAMPLE CONC (µg/kg)	MS SPIKE (µg/kg)	MS CONC (µg/kg)	MS % REC #	MSD SPIKE (µg/kg)	MSD CONC (µg/kg)	MSD % REC #	% RPD	QC LIMITS RPD	QC LIMITS REC
Acenaphthene	BQL	3210	2790	86.8	3230	2700	83.5	3.88	30	71.0-125
Acenaphthylene	BQL	3210	2870	89.4	3230	2760	85.4	4.58	30	73.0-140
Anthracene	BQL	3210	2610	81.2	3230	2460	76.1	6.48	30	66.9-119
Benzo[a]anthracene	BQL	3210	2950	91.7	3230	2730	84.5	8.17	30	51.8-127
Benzo[a]pyrene	BQL	3210	2790	86.8	3230	2590	80.2	7.90	30	78.5-137
Benzo[b]fluoranthene	BQL	3210	2860	89.7	3230	2750	85.0	5.38	30	62.3-134
Benzo[g,h,i]perylene	BQL	3210	3340	104	3230	3190	98.7	5.33	30	56.2-149
Benzo[k]fluoranthene	BQL	3210	2910	90.7	3230	2720	84.2	7.43	30	79.7-133
Benzoic Acid	BQL	3210	1320	41.2	3230	1130	34.9	16.6	30	0.00-140
Benzyl Alcohol	BQL	3210	1890	58.7*	3230	1900	58.6*	0.171	30	66.8-114
Bis(2-chloroethoxy)methane	BQL	3210	2970	92.4	3230	2850	88.0	4.88	30	71.4-123
Bis(2-chloroethyl)ether	BQL	3210	2890	90.0	3230	2770	85.7	4.89	30	64.0-120
Bis(2-chloroisopropyl)ether	BQL	3210	2940	91.6	3230	2810	86.9	5.27	30	60.5-123
Bis(2-ethylhexyl)phthalate	BQL	3210	3060	95.2	3230	2820	87.2	8.77	30	68.5-134
4-bromophenyl phenyl ether	BQL	3210	2820	87.8	3230	2680	82.9	5.74	30	65.2-127
Butylbenzylphthalate	BQL	3210	3020	93.9	3230	2850	88.1	6.37	30	64.4-133
4-Chloroaniline	BQL	3210	2460	76.7	3230	2460	76.0	0.917	30	25.1-237
4-Chloro-3-methylphenol	BQL	3210	3100	96.4	3230	2910	89.9	6.98	30	80.0-115
2-Chloronaphthalene	BQL	3210	2350	73.0	3230	2280	70.4	3.63	30	70.3-124
2-Chlorophenol	BQL	3210	2820	87.7	3230	2730	84.4	3.83	30	77.1-111
4-Chlorophenyl phenyl ether	BQL	3210	2710	84.5	3230	2640	81.7	3.37	30	72.8-125
Chrysene	BQL	3210	2880	89.5	3230	2710	83.8	6.58	30	72.7-124
Di-n-Butylphthalate	BQL	3210	2920	91.0	3230	2750	85.1	6.70	30	67.9-125
Di-n-octylphthalate	BQL	3210	3050	94.9	3230	2840	87.9	7.66	30	48.9-162
Dibenzo[a,h]anthracene	BQL	3210	3160	98.3	3230	3020	93.5	5.01	30	58.6-146
Dibenzofuran	BQL	3210	2820	87.9	3230	2720	84.2	4.30	30	70.6-115
1,2-Dichlorobenzene	BQL	3210	2780	86.4	3230	2620	81.0	6.45	30	73.3-121
1,3-Dichlorobenzene	BQL	3210	2750	85.7	3230	2620	81.1	5.52	30	69.7-119
1,4-Dichlorobenzene	BQL	3210	2850	88.6	3230	2670	82.6	7.01	30	70.6-117
3,3'-Dichlorobenzidine	BQL	3210	2830	88.0	3230	2610	80.6	8.78	30	14.2-302
2,4-Dichlorophenol	BQL	3210	2850	88.6	3230	2740	84.6	4.62	30	74.5-115
Diethylphthalate	BQL	3210	2810	87.4	3230	2660	82.4	5.89	30	70.8-127
2,4-Dimethylphenol	BQL	3210	2710	84.4*	3230	2690	83.2*	1.43	30	85.4-138
Dimethylphthalate	BQL	3210	2770	86.3	3230	2670	82.6	4.38	30	68.5-122
4,6-Dinitro-2-methylphenol	BQL	3210	2730	85.0	3230	2440	75.5	11.8	30	39.4-126
2,4-Dinitrophenol	BQL	3210	1990	61.8	3230	1460	45.1	31.2*	30	20.4-130
2,4-Dinitrotoluene	BQL	3210	2660	82.8	3230	2580	79.8	3.69	30	67.6-136
2,6-Dinitrotoluene	BQL	3210	2770	86.1	3230	2670	82.6	4.15	30	69.3-131
Fluoranthene	BQL	3210	2730	84.9	3230	2650	81.9	3.59	30	64.6-129
Fluorene	BQL	3210	2770	86.1	3230	2670	82.5	4.27	30	72.4-128
Hexachlorobenzene	BQL	3210	2860	89.0	3230	2640	81.6	8.68	30	62.9-124

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

COMMENTS: _____

3D

SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: SGS Environmental Services, Inc.

Lab Code: NC00919 Inst: MSD6

EPA Sample No.: G760-8-8G, G760-8-8H, G760-8-8I Batch: 6070908

Filenames: 0709621.D, 0709625.D, 0709626.D Dilution: 1

COMPOUND	SAMPLE CONC (µg/kg)	MS SPIKE (µg/kg)	MS CONC (µg/kg)	MS % REC #	MSD SPIKE (µg/kg)	MSD CONC (µg/kg)	MSD % REC #	% RPD	QC LIMITS RPD	QC LIMITS REC
Hexachlorobutadiene	BQL	3210	2670	83.2	3230	2520	77.9	6.58	30	69.1-118
Hexachlorocyclopentadiene	BQL	3210	4880	152	3230	4620	143	6.11	30	-10.4-176
Hexachloroethane	BQL	3210	2720	84.6	3230	2550	79.0	6.85	30	68.0-122
Indeno(1,2,3-c,d)pyrene	BQL	3210	3120	97.2	3230	3030	93.7	3.67	30	29.1-157
Isophorone	BQL	3210	2620	81.6	3230	2460	76.2	6.84	30	65.2-143
1-Methylnaphthalene	BQL	3210	2880	89.8	3230	2740	84.6	5.96	30	68.0-130
2-Methylnaphthalene	BQL	3210	2820	87.9	3230	2650	81.8	7.19	30	74.1-111
2-Methylphenol	BQL	3210	2650	82.5	3230	2630	81.2	1.59	30	78.7-116
4 Methylphenol	BQL	6430	5850	91.0	6470	5680	87.8	3.64	30	71.2-101
N-Nitrosodi-n-propylamine	BQL	3210	2920	90.9	3230	2760	85.5	6.12	30	74.3-133
Diphenylamine	BQL	3210	2850	88.8	3230	2770	85.6	3.67	30	73.6-208
Naphthalene	BQL	3210	2950	91.8	3230	2780	85.9	6.64	30	49.9-137
2-Nitroaniline	BQL	3210	2770	86.2	3230	2760	85.2	1.17	30	70.0-129
3-Nitroaniline	BQL	3210	2690	83.7	3230	2570	79.6	5.02	30	76.6-356
4-Nitroaniline	BQL	3210	2940	91.5	3230	2890	89.4	2.32	30	50.8-178
Nitrobenzene	BQL	3210	2890	89.9	3230	2810	86.8	3.51	30	71.4-122
2-Nitrophenol	BQL	3210	2920	90.9	3230	2770	85.8	5.77	30	63.3-112
4-Nitrophenol	BQL	3210	2170	67.7	3230	2080	64.4	5.00	30	56.8-133
Pentachlorophenol	BQL	3210	2060	64.0	3230	1860	57.6	10.5	30	29.2-108
Phenanthrene	BQL	3210	2930	91.1	3230	2780	85.9	5.88	30	55.8-128
Phenol	BQL	3210	2890	90.0	3230	2860	88.3	1.91	30	71.2-120
Pyrene	BQL	3210	2970	92.4	3230	2810	86.8	6.25	30	68.5-140
Pyridine	BQL	3210	2660	82.7	3230	2370	73.3	12.1	30	50.0-150
1,2,4-Trichlorobenzene	BQL	3210	2820	87.7	3230	2630	81.4	7.45	30	68.9-119
2,4,5-Trichlorophenol	BQL	3210	2580	80.4	3230	2470	76.4	5.10	30	72.4-118
2,4,6-Trichlorophenol	BQL	3210	2690	83.6	3230	2640	81.6	2.42	30	67.9-116

System Monitoring Compound Results		Spike Added (µg/kg)	MS Result (µg/kg)	MS Rec. (%)	Spike Added (µg/kg)	MSD Result (µg/kg)	MSD Rec. (%)	Percent Recovery (%)
118-79-6	2,4,6-Tribromophenol	10	79	79.0	10	74.7	74.7	41.1-129
321-60-8	2-Fluorobiphenyl	10	92.2	92.2	10	82.3	82.3	56.4-116
367-12-4	2-Fluorophenol	10	88.4	88.4	10	79.6	79.6	41.8-123
1718-51-0	4-Terphenyl-d14	10	105.8	106	10	94	94.0	43.8-140
4165-60-0	Nitrobenzene-d5	10	94.1	94.1	10	84.7	84.7	46.1-117
13127-88-3	Phenol-d6	10	87.1	87.1	10	81.5	81.5	47.9-125

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 1 out of 67 outside of limits

Spike Recovery: 4 out of 134 outside of limits

COMMENTS:

Analyst: DS

EPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Richard Catlin & Associates

Project Name: AS4151-1

Sample Information	
Sample Identification	USTAS4151-1-SB03A
Sample Matrix	SOIL
Date Collected	06/30/08
Date Received	06/30/08
Date Extracted	07/07/08
Date Analyzed	07/09/08 17:38 - 07/09/08 18:07
Dry Weight	80.5
Dilution Factor	1 - 1
Initial weight (g)	12.06
Final Volume (mL)	10.0

Analytical Results			
Analytes**	Result mg/Kg	Report Limit mg/Kg	Flags
C9-C18 Aliphatics	BQL	10.0	
C19-C36 Aliphatics	BQL	10.0	
C11-C22 Aromatics	BQL	10.0	

Surrogates	Percent Recovery	Flags	Limits Lower	Limits Upper
Aliphatic (tricosane)	115		40	140
Aromatic (ortho-terphenyl)	113		40	140
Fractionation 1 (2-bromonaphthalene)	106		40	140
Fractionation 2 (2-fluorobiphenyl)	105		40	140

** = Excludes any surrogates or internal standards and are unadjusted for individual analytes.

Lab Info: G128-2211-1J	Lab Info: G128-2211-1J
Aliphatic: EP070908/015F1301.D	Aromatic: EP070908/016F1401.D

Reviewed By:

Attachment 3

EPH Laboratory Reporting Form

Calibration and QA/QC Information

Initial Calibration Date: 06/05/08

Calibration Ranges and Limits

Range	MDL (02/15/08) (µg/L)	MDL (02/11/08) (mg/Kg)	ML (µg/L)	ML (mg/Kg)	RL (µg/L)	RL (mg/Kg)
C9-C18 Aliphatics	1.66	0.274	5.28	0.871	100	10
C19-C36 Aliphatics	2.79	0.201	8.87	0.639	100	10
C11-C22 Aromatics	2.64	0.110	8.40	0.350	100	10

Calibration Concentration Levels

Range	Levels (µg/L)	Levels (mg/Kg)	%RSD if CF r if LR	Method of Quantitation
C_9-C_{18} Aliphatics	200	33.3	1.89	Calibration Factor
	100	16.7		
	50	8.33		
	25	4.17		
	5	0.833		
C_{19}-C_{36} Aliphatics	200	33.3	0.86	Calibration Factor
	100	16.7		
	50	8.33		
	25	4.17		
	5	0.833		
C_{11}-C_{22} Aromatics	200	33.3	0.99	Linear Regression
	100	16.7		
	50	8.33		
	25	4.17		
	5	0.833		

Calibration Check Date: 07/09/08
07/09/08

Filenames: ep070908/001f0101.d
ep070908/002f0201.d

Calibration Check

Range	Levels (µg/L)	Levels (mg/Kg)	%Difference if CF %Drift if LR	Limits
C9-C18 Aliphatics	100	16.7	16.5	≤±25%
C19-C36 Aliphatics	100	16.7	16.3	≤±25%
C11-C22 Aromatics	100	16.7	16.1	≤±25%

MDL = Method Detection Limit
ML = Minimum Limit
RL = Reportable Limit
RPD = Relative Percent Difference
%RSD = Percent Relative Standard Deviation
CCC = Correlation Coefficient of Curve

Attachment 3

EPH Laboratory Reporting Form

Calibration and QA/QC Information

Initial Calibration Date: 06/05/08

Calibration Ranges and Limits

Range	MDL (02/15/08) (µg/L)	MDL (02/11/08) (mg/Kg)	ML (µg/L)	ML (mg/Kg)	RL (µg/L)	RL (mg/Kg)
C9-C18 Aliphatics	1.66	0.274	5.28	0.871	100	10
C19-C36 Aliphatics	2.79	0.201	8.87	0.639	100	10
C11-C22 Aromatics	2.64	0.110	8.40	0.350	100	10

Calibration Concentration Levels

Range	Levels (µg/L)	Levels (mg/Kg)	%RSD if CF r if LR	Method of Quantitation
C_9-C_{18} Aliphatics	200	33.3	1.89	Calibration Factor
	100	16.7		
	50	8.33		
	25	4.17		
	5	0.833		
C_{19}-C_{36} Aliphatics	200	33.3	0.86	Calibration Factor
	100	16.7		
	50	8.33		
	25	4.17		
	5	0.833		
C_{11}-C_{22} Aromatics	200	33.3	0.99	Linear Regression
	100	16.7		
	50	8.33		
	25	4.17		
	5	0.833		

Calibration Check Date: 07/10/08
07/10/08

Filenames: ep071008/004f0101.d
ep071008/002f0201.d

Calibration Check

Range	Levels (µg/L)	Levels (mg/Kg)	%Difference if CF %Drift if LR	Limits
C9-C18 Aliphatics	100	16.7	16.8	≤±25%
C19-C36 Aliphatics	100	16.7	17.3	≤±25%
C11-C22 Aromatics	100	16.7	5.1	≤±25%

MDL = Method Detection Limit
ML = Minimum Limit
RL = Reportable Limit
RPD = Relative Percent Difference
%RSD = Percent Relative Standard Deviation
CCC = Correlation Coefficient of Curve

VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Richard Catlin & Associates

Project Name: AS4151-1

Sample Information	
Sample Identification	USTAS4151-1-SB03A
Sample Matrix	Soil
Collection Option (for Soil)*	2
Date Collected	06/30/08
Date Received	06/30/08
Date Extracted	07/01/08
Date Analyzed	07/07/08 22:31 - 07/07/08 22:31
Dry Weight	80.5
Dilution Factor	1 - 1

Analytical Results			
Analyte	Result mg/Kg	Report Limit mg/Kg	Flags
C_5-C_8 Aliphatics**	BQL	10.0	
C_9-C_{12} Aliphatics**	BQL	10.0	
C_9-C_{10} Aromatics**	BQL	10.0	

	Percent Recovery	Flags	Limits Lower	Limits Upper
Surrogate % Recovery - PID	97.8		70	130
Surrogate % Recovery - FID	100		70	130

* = Option 1 = Established fill line on vial, Option 2 = Sampling Device/Brand, or Option 3 = Field weight of soil.

** = Excludes any surrogates or internal standards and are unadjusted for individual analytes.

Lab Info: g128-2211-1e	Lab Info: g128-2211-1e
FID Info: VP070708/032F0101.D	PID Info: VP070708/032R0101.D

Reviewed By:

VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: _____

Project Name: _____

Sample Information	
Sample Identification	vblk4070708a
Sample Matrix	Soil
Collection Option (for Soil)*	NA
Date Collected	
Date Received	
Date Extracted	
Date Analyzed	07/07/08 10:42 - 07/07/08 10:42
Dry Weight	100
Dilution Factor	1 - 1

Analytical Results			
Analyte	Result mg/Kg	Report Limit mg/Kg	Flags
C_5-C_8 Aliphatics**	BQL	10.0	
C_9-C_{12} Aliphatics**	BQL	10.0	
C_9-C_{10} Aromatics**	BQL	10.0	

	Percent Recovery	Flags	Limits Lower	Limits Upper
Surrogate % Recovery - PID	93.4		70	130
Surrogate % Recovery - FID	97.1		70	130

* = Option 1 = Established fill line on vial, Option 2 = Sampling Device/Brand, or Option 3 = Field weight of soil.

** = Excludes any surrogates or internal standards and are unadjusted for individual analytes.

Lab Info:	vblk4070708a	Lab Info:	vblk4070708a
FID Info:	VP070708/006F0101.D	PID Info:	VP070708/006R0101.D

Reviewed By: _____

SGS ENVIRONMENTAL SERVICES, INC.

LABORATORY CONTROL SPIKE RESULTS
by Method VPH

SGS Environmental Services, Inc.

Lab Sample ID:	LCS4070708A	Analyzed By:		
Lab Project ID:	Batch QC	Matrix:	Soil	
Report Basis:	Dry	Percent Solids:	100	%

Analytical QC Results Summary

Analyte	Expected Amount mg/Kg	Measured Amount mg/Kg	Percent Recovery (%)	Lower Limit (%)	Upper Limit (%)	Qualifier
C5-C8 Aliphatics		8.44				
C9-C12 Aliphatics		3.20				
C9-C10 Aromatics		2.93				
Total VPH	16.0	14.6	91.3	70.0	130	

Surrogate Standards	Expected Amount mg/Kg	Measured Amount mg/Kg	Percent Recovery (%)	Lower Limit (%)	Upper Limit (%)	Qualifier
Surrogate - PID	100	94.5	94.5	70.0	130	
Surrogate - FID	100	97.0	97.0	70.0	130	

Reviewed By: _____

SGS ENVIRONMENTAL SERVICES, INC.

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RESULTS
by Method VPH

SGS Environmental Services, Inc.

Lab Sample ID:	g563-223-4a	Analyzed By:	DVG	
MS Sample ID:	g563-223-4a	Matrix:	Soil	
MSD Sample ID:	g563-223-4a	Percent Solids:	93.9	%
Lab Project ID:	Batch QC for VP070708			
Report Basis:	Dry			

Matrix Spike Results Summary

Analyte	Sample Amount mg/Kg	Spiked Amount mg/Kg	Measured Amount mg/Kg	Percent Recovery (%)	Lower Limit (%)	Upper Limit (%)	Qualifier
C5-C8 Aliphatics	3.950	-	11.80	-	-	-	
C9-C12 Aliphatics	8.710	-	11.90	-	-	-	
C9-C10 Aromatics	8.600	-	10.50	-	-	-	
Total VPH	21.300	12.8	34.1	100.0	70	130	

Matrix Spike Duplicate Results Summary

Analyte	Spiked Amount mg/Kg	Measured Amount mg/Kg	Percent Recovery (%)	Lower Limit (%)	Upper Limit (%)	Qualifier
C5-C8 Aliphatics	-	11.80	-	-	-	
C9-C12 Aliphatics	-	13.10	-	-	-	
C9-C10 Aromatics	-	10.30	-	-	-	
Total VPH	12.8	35.2	108.0	70	130	

Analyte	MS Amount mg/Kg	MSD Amount mg/Kg	RPD Value (%)	RPD Limit (%)	Qualifier
C5-C8 Aliphatics	-	-	-	-	
C9-C12 Aliphatics	-	-	-	-	
C9-C10 Aromatics	-	-	-	-	
Total VPH	34.1	35.2	3	20	

Reviewed By: _____

Attachment 2

VPH Laboratory Reporting Form

Calibration and QA/QC Information

FID Initial Calibration Date: 07/06/08 PID Initial Calibration Date: 07/06/08

Calibration Ranges and Limits

Range	MDL (µg/L)	MDL (mg/Kg)	ML (µg/L)	ML (mg/Kg)	RL (µg/L)	RL (mg/Kg)
C_5-C_8 Aliphatics	2.02	0.175	6.42	0.557	100	10
C_9-C_{12} Aliphatics	1.51	0.118	4.80	0.375	100	10
C_9-C_{10} Aromatics	0.902	0.132	2.87	0.420	100	10

Calibration Concentration Levels

Range	Levels (µg/L)	Levels (mg/Kg)	%RSD if CF r if LR	Method of Quantitation
C_5-C_8 Aliphatics	10	0.8	17.43	Calibration Factor
	50	4		
	100	8		
	200	16		
	500	40		
C_9-C_{12} Aliphatics	10	0.8	21.36	Calibration Factor
	50	4		
	100	8		
	200	16		
	500	40		
C_9-C_{10} Aromatics	10	0.8	16.31	Calibration Factor
	50	4		
	100	8		
	200	16		
	500	40		

Calibration Check Date: 07/07/08 Filename: VP070708/002F0101.d

Calibration Check

Range	Levels (µg/L)	Levels (mg/Kg)	%Difference if CF %Drift if LR	Limits
C_5-C_8 Aliphatics	200	16	-3.6	±25%
C_9-C_{12} Aliphatics	200	16	-9.4	±25%
C_9-C_{10} Aromatics	200	16	-4.4	±25%

MDL = Method Detection Limit
ML = Minimum Limit
RL = Reportable Limit
RPD = Relative Percent Difference
%RSD = Percent Relative Standard Deviation
CCC = Correlation Coefficient of Curve

Attachment 2

VPH Laboratory Reporting Form

Calibration and QA/QC Information

FID Initial Calibration Date: 07/06/08 PID Initial Calibration Date: 07/06/08

Calibration Ranges and Limits

Range	MDL (µg/L)	MDL (mg/Kg)	ML (µg/L)	ML (mg/Kg)	RL (µg/L)	RL (mg/Kg)
C_5-C_8 Aliphatics	2.02	0.175	6.42	0.557	100	10
C_9-C_{12} Aliphatics	1.51	0.118	4.80	0.375	100	10
C_9-C_{10} Aromatics	0.902	0.132	2.87	0.420	100	10

Calibration Concentration Levels

Range	Levels (µg/L)	Levels (mg/Kg)	%RSD if CF r if LR	Method of Quantitation
C_5-C_8 Aliphatics	10	0.8	17.43	Calibration Factor
	50	4		
	100	8		
	200	16		
	500	40		
C_9-C_{12} Aliphatics	10	0.8	21.36	Calibration Factor
	50	4		
	100	8		
	200	16		
	500	40		
C_9-C_{10} Aromatics	10	0.8	16.31	Calibration Factor
	50	4		
	100	8		
	200	16		
	500	40		

Calibration Check Date: 07/07/08 Filename: VP070708/037F0101.d

Calibration Check

Range	Levels (µg/L)	Levels (mg/Kg)	%Difference if CF %Drift if LR	Limits
C_5-C_8 Aliphatics	200	16	-0.9	±25%
C_9-C_{12} Aliphatics	200	16	-6.4	±25%
C_9-C_{10} Aromatics	200	16	2.1	±25%

MDL = Method Detection Limit
ML = Minimum Limit
RL = Reportable Limit
RPD = Relative Percent Difference
%RSD = Percent Relative Standard Deviation
CCC = Correlation Coefficient of Curve

CHAIN OF CUSTODY RECORD
SGS Environmental Services Inc.

Locations Nationwide
- Alaska
- Hawaii
- Ohio
- Maryland
- New Jersey
- North Carolina
- West Virginia

www.us.sgs.com

C882[illegible]

(1)

CLIENT: Catlin

CONTACT: Ben Ashba PHONE NO: (910) 452-5861

PROJECT: AS4151-1 SITE/PWSID#: 205-077

REPORTS TO: Ben Ashba E-MAIL:

FAX NO.:( )

INVOICE TO: Sheila @ Catlin QUOTE # DOD101

P.O. NUMBER 280630-4

SGS Reference: G128-2211

PAGE 1 OF 1

(2)

LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	No CONTAINERS	SAMPLE TYPE C=COMP G=GRAB	Preservatives Used	Analysis Required (3) DRO	8260	8270	EPH	VPH	REMARKS
	USTAS4151-1-SB03A	6/30	1300	S	7	G		V		H	O	L	D

(5)

Collected/Relinquished By:(1)	Date	Time	Received By:	Date	Time
Justin Hetts	6/30/08	1505	[signature]	6/30/8	1505
Relinquished By: (2)	Date	Time	Received By:	Date	Time
Relinquished By: (3)	Date	Time	Received By:	Date	Time
Relinquished By: (4)	Date	Time	Received By:	Date	Time

(4)

Shipping Carrier:

Shipping Ticket No:

Special Deliverable Requirements:

Samples Received Cold? (Circle) YES NO

Temperature °C: 12.8°C ice cooler

Chain of Custody Seal: (Circle) [illegible] INTACT BROKEN ABSENT

Special Instructions:
Test for DRO, HOLD other analysis until results

Requested Turnaround Time:
☑ RUSH 24-hr DRO ☐ STD
Date Needed

SGS ENVIRONMENTAL SERVICES, INC.

N.C. CERTIFICATION #481

☐ 200 W. Potter Drive Anchorage, AK 99518 Tel: (907) 562-2343 Fax: (907) 561-5301
☐ 5500 Business Drive Wilmington, NC 28405 Tel: (910) 350-1903 Fax: (910) 350-1557
☐ 1270 Greenbrier Street Charleston, WV 25311 Tel: (304) 346-0725 Fax: (304) 346-0761

White - Retained by Lab
Yellow - Returned with Report
Pink - Retained by Sampler