



Post Office Box 10279
Wilmington, NC 28404-0279

Phone (910) 452-5861
Fax (910) 452-7563
www.catlinusa.com

May 8, 2008

NAVFAC Mid-Atlantic
Marine Corps North Carolina IPT
Environmental Business Line
Code: OPCEV
Attn: Ms. Lori P. Reuther, PG
6506 Hampton Boulevard
Bldg. C, Room 314
Norfolk, VA 23508-1278

Re: **Former CERCLA Site A-47-3**
FINAL Addendum Soil Sampling
Marine Corps Base, Camp Lejeune, North Carolina
NCDENR UST Incident No. 8914
CATLIN Project No. 207-048

Dear Ms. Reuther:

On January 7, 2008, a Phase I Limited Site Assessment (LSA) Report concerning this site was submitted to the Wilmington Regional Office (WiRO) of the North Carolina Department of Environment and Natural Resource (NCDENR). The subject LSA report provided details of recent soil and groundwater sampling results and requested the site be considered for No Further Action following soil excavation. Following a site visit by Bruce Reed on January 15, 2008, a request was made to collect two additional soil samples adjacent to existing monitoring well USTA47-MW01 at the location of a former dispenser island, and one confirmatory soil sample be collected from the previous UST47-SS04 sample location. The previous UST47-SS04 sample exhibited EPA 8270 compound Benzo[a]pyrene at an estimated value of 0.915 mg/Kg, in excess of the Industrial/Commercial Maximum Soil Contaminant Concentration (MSCC) of 0.78 mg/Kg. During the course of the LSA investigation, no other contaminants were detected above Industrial/Commercial MSCCs. This letter presents the results of the addendum soil sampling event at this site.

As requested, CATLIN collected the three additional soil samples for laboratory analysis on March 5, 2008. All soil samples were collected using the following techniques:

- A borehole was advanced and screened with an OVA to determine the most contaminated interval for the soil samples USTA47-SS08 and USTA47-SS09 to be collected.
- A second borehole was advanced adjacent to the first to the interval with the highest OVA and a soil sample was collected for laboratory analysis.
- The confirmatory soil sample (USTA47-SS04A) was collected from the previous sample location, UST47-SS04, from the interval 1-2 feet below land surface (BLS).

- The soil samples were placed in appropriate glassware and transported under proper chain-of-custody to SGS Environmental Services, Inc. of Wilmington, North Carolina. Soil samples USTA47-SS08 and USTA47-SS09 were analyzed for EPA Method 8260 w/ 5035 Prep., EPA Method 8270, and MADEP VPH and EPH. The confirmatory soil sample, USTA47-SS04, was analyzed for analysis by EPA Method 8270 only.

Results of the laboratory analysis are summarized in Tables 1-4 and as follows:

EPA Method 8260 w/ 5035 Prep.

Acetone, 2-Butanone, Methylene Chloride and Toluene were detected at low concentrations, but did not exceed any of the established Maximum Soil Contaminant Concentrations (MSCCs). All other 8260 target analytes were reported as below the quantitation limit (BQL). See attached Table 1 for a summary of laboratory results.

EPA Method 8270

Benzo[a]anthracene and Benzo[a]pyrene were detected in USTA47-SS09 at concentrations above the Soil to Groundwater (STGW) and Residential MSCCs, but well below the Industrial/Commercial MSCCs. All other 8270 target analytes were reported as either BQL or less than the lowest MSCC. See attached Table 2 for a summary of laboratory results.

MADEP VPH/EPH

MADEP VPH and EPH fractions were detected in all of the soil samples. However, only the C₉-C₂₂ Aromatic concentration was in excess of any MSCCs. In USTA47-SS08, the C₉-C₂₂ Aromatic concentration of 217.7 mg/kg exceeded the STGW MSCC of 34 mg/kg, but was below the Residential MSCC of 469 mg/kg and well below the Industrial/Commercial MSCC of 12,264 mg/kg. In USTA47-SS09, the C₉-C₂₂ Aromatic concentration of < 703 mg/kg exceeded the STGW and Residential MSCCs, but was well below the Industrial/Commercial MSCC. See attached Tables 3 and 4 for a summary of laboratory results.

Refer to the attached laboratory report for analytical results and chain-of-custody documentation.

RECOMMENDATIONS

Ultimately, NCDENR Division of Waste Management UST Section personnel determine the risk classification for the incident at the subject site. Any additional assessment and/or remediation activities would be based on the pending risk classification. The following recommendations are based on CATLIN personnel evaluating site findings in accordance with the 2001 Guidelines.

During the course of this addendum soil sampling event, no contaminants were detected above Industrial/Commercial MSCCs. Based on a review of the laboratory results, it is recommended that the site be considered for No Further Action with a land use restriction on site soils.

Please feel free to contact our office at (910) 452-5861 if you have any questions or require any additional information.

Sincerely,



Shari L. Thompson, P.G.
Project Geologist



Michael E. Mason,
Program Manager



Attachments

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

TABLES

TABLE 1 SUMMARY OF SOIL LABORATORY RESULTS

Date: March 2008

Incident No. and Project Name: 8914 - Building A-47

Analytical Method: EPA Method 8260 + IPE + MTBE

Sample ID	Contaminant of Concern →		Acetone	2-Butanone	Methylene Chloride	Toluene	All Other 8260 Compounds
	Date Collected	Sample Depth (ft. BLS)					
Residential MSCC (mg/kg)			1,564	9,385	85	3,200	Varies
Industrial/Commercial MSCC (mg/kg)			40,880	245,280	763	82,000	Varies
Soil to Groundwater MSCC (mg/kg)			2.8	17	0.02	7.3	Varies
USTA47-SS08 (2-4)	3/5/2008	2-4	0.0595	0.0107 J	0.00179 J	0.00115 J	BQL
USTA47-SS09 (2-4)	3/5/2008	2-4	0.073	0.0100 J	0.00168 J	0.00139 J	BQL

Please note that samples were incorrectly labeled in the laboratory report as USTA12 instead of USTA47.

All results in milligrams per kilogram (mg/kg).

BQL = Below Quantitation Limit

MSCC = Maximum Soil Contaminant Concentration

J = Estimated concentration, below calibration range and above MDL

ft. BLS = feet below land surface

< = Less than method detection limit

TABLE 2 SUMMARY OF SOIL LABORATORY RESULTS

Date: March 2008

Incident No. and Project Name: 8914 - Building A-47

Analytical Method: EPA Method 8270

Sample ID	Contaminant of Concern		Anthracene	Benzo[a]anthracene	Benzo[a]pyrene	Benzo[b]fluoranthene	Benzo[g,h,i]perylene	Benzo[k]fluoranthene	Bis (2-ethylhexyl) phthalate	Chrysene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Phenanthrene	Pyrene	All Other 8270 Compounds
	Date Collected	Sample Depth (ft. BGS)														
Residential MSCC (mg/kg)			4,600	0.88	0.088	0.88	469	9	46	88	620	620	0.88	469	469	Varies
Industrial/Commercial (mg/kg)			122,000	8	0.78	8	12,264	78	410	780	16,400	16,400	8	12,264	12,264	Varies
Soil to Groundwater MSCC (mg/kg)			1,000	0.34	0.091	1.2	6,700	12	5.6	38	280	44	3.3	60	290	Varies
USTA47-SS08	3/5/2008	2-4	<0.049	<0.058	<0.051	<0.059	<0.091	<0.065	0.074 J	<0.036	<0.047	<0.042	<0.086	<0.038	<0.064	BQL
USTA47-SS09	3/5/2008	2-4	0.942	0.900	0.288 J	0.544	0.091 J	0.233 J	0.308 J	1.00	4.80	0.104 J	0.104 J	0.79	4.48	BQL
USTA47-SS04A	3/5/2008	1-2	<0.048	0.100 J	0.063 J	0.113 J	<0.091	<0.064	1.07	0.137 J	0.273 J	<0.041	0.093 J	<0.038	0.380	BQL

Please note that samples were incorrectly labeled in the laboratory report as USTA12 instead of USTA47.

All results in milligrams per kilogram (mg/kg).

BQL = Below Quantitation Limit

MSCC = Maximum Soil Contaminant Concentration

J = Estimated concentration, below calibration range and above MDL

Bold results indicate concentrations above lowest MSCC

ft. BLS = feet below land surface

< = Less than method detection limit

TABLE 3 SUMMARY OF SOIL LABORATORY RESULTS

Date: March 2008

Incident No. and Project Name: 8914 - Building A-47

Analytical Method: MADEP VPH/EPH

Sample ID	Contaminant of Concern →		C ₅ -C ₈ Aliphatics	C ₉ -C ₁₂ Aliphatics	C ₉ -C ₁₀ Aromatics	C ₉ -C ₁₈ Aliphatics	C ₁₉ -C ₃₆ Aliphatics	C ₁₁ -C ₂₂ Aromatics
	Date Collected	Sample Depth (ft. BLS)						
USTA47-SS08	3/5/2008	2-4	<10.0	15.6	18.7	384	310	199
USTA47-SS09	3/5/2008	2-4	<10.0	<10.0	<10.0	1,250	696	693

Please note that samples were incorrectly labeled in the laboratory report as USTA12 instead of USTA47.

All results in milligrams per kilogram (mg/kg).

< = Less than method detection limit

TABLE 4 SUMMARY OF SOIL LABORATORY RESULTS

Date: March 2008

Incident No. and Project Name: 8914 - Building A-47

Analytical Method: MADEP VPH/EPH as compared to NCDENR MSCCs

Sample ID	Contaminant of Concern →		C ₅ -C ₈ Aliphatics	C ₉ -C ₁₈ Aliphatics	C ₁₉ -C ₃₆ Aliphatics	C ₉ -C ₂₂ Aromatics
	Date Collected	Sample Depth (ft. BLS)				
Residential MSCC (mg/kg)			939	9,386	93,860	469
Industrial/Commercial MSCC (mg/kg)			24,528	245,280	#	12,264
Soil to Groundwater MSCC (mg/kg)			72	3,300	##	34
USTA47-SS08	3/5/2008	2-4	<10.0	399.6	310	217.7
USTA47-SS09	3/5/2008	2-4	<10.0	<1,260*	696	<703*

Please note that samples were incorrectly labeled in the laboratory report as USTA12 instead of USTA47.

All results in milligrams per kilogram (mg/kg).

Health based level > 100%

Considered immobile

MSCC = Maximum Soil Contaminant Concentration

Bold results indicate concentrations above lowest MSCC

* = The value represents the sum of the reported practical quantitation limit of one fraction and the detected concentration of the other fraction

< = Less than method detection limit

FIGURES

**ADDENDUM SOIL SAMPLING
PHASE I LSA
FORMER CERCLA SITE A-47-3
MCB CAMP LEJEUNE**



LEGEND

EXISTING	DESCRIPTION
⊕	Type II Monitoring Well
●	Soil Boring
⊕	Soil Sample Locations
⊗	Unknown Well Type
▭	Buildings and Structures
- - -	Demolished Structures
▭	Oil/Water Separators
▭	Slabs
▭	Roads, Driveways and Parking Lots
🌳	Forestland
⊠	Above Ground Storage Tank
⊗	Fence

NOTES

MAP ADAPTED FROM CAMP LEJEUNE GIS DATA BASE.



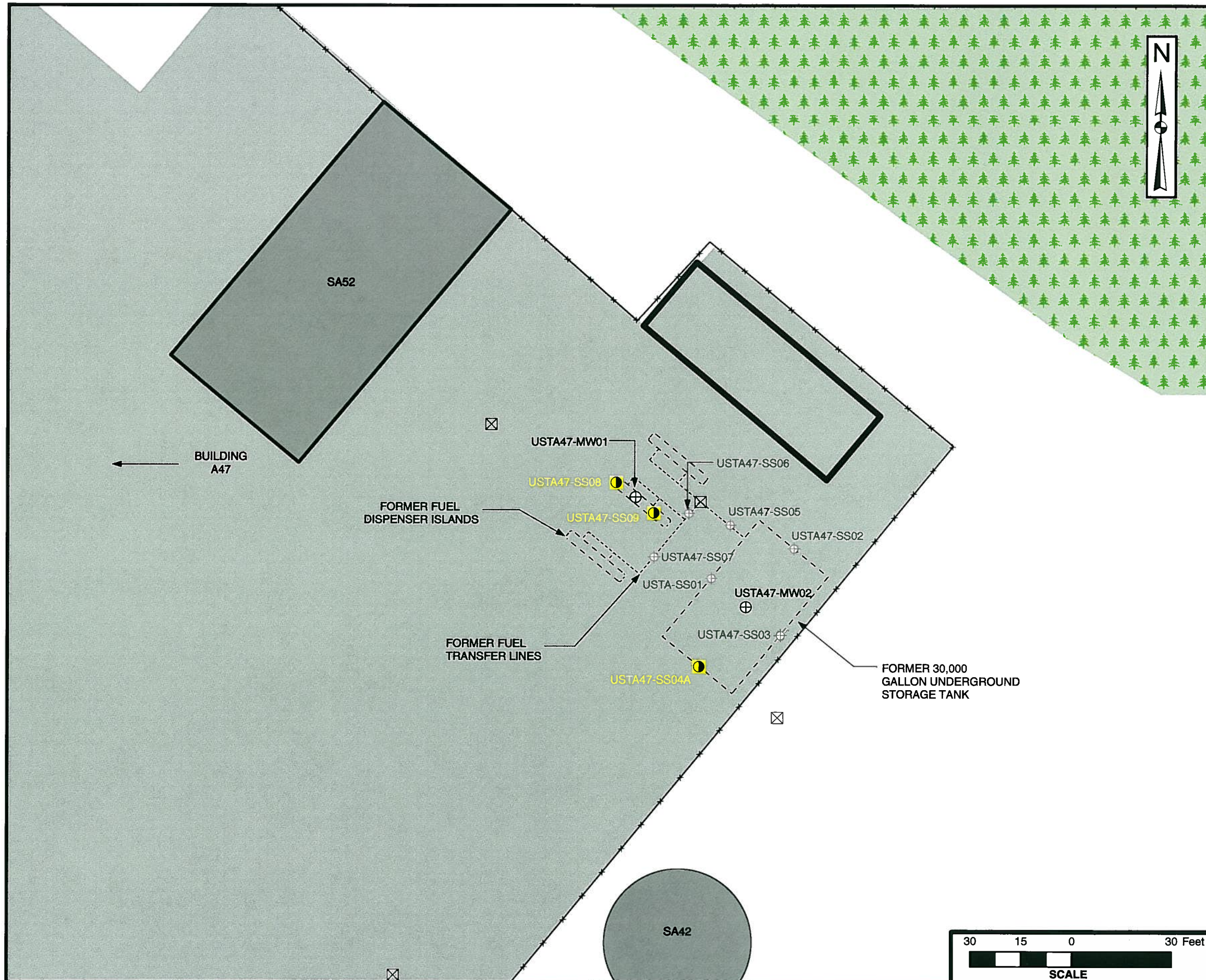
SITE PLAN WITH
SOIL SAMPLE LOCATIONS

FIGURE

1



Job No.: 207-048	Date: APRIL 2008	Scale: AS SHOWN	Drawn By: KAWS	Checked By: JC
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Analytical Method: EPA Method 8260 + IPE + MTBE

Sample ID	Contaminant of Concern →		Acetone	2-Butanone	Methylene Chloride	Toluene	All Other 8260 Compounds
	Date Collected	Sample Depth (ft. BLS)					
Residential MSCC (mg/kg)			1,564	9,385	85	3,200	Varies
Industrial/Commercial MSCC (mg/kg)			40,880	245,280	763	82,000	Varies
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USTA47-SS08 (2-4)	3/5/2008	2-4	0.0595	0.0107 J	0.00179 J	0.00115 J	BQL
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MSCC = Maximum Soil Contaminant Concentration

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ft. BLS = feet below land surface

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ADDENDUM SOIL SAMPLING PHASE I LSA FORMER CERCLA SITE A-47-3 MCB CAMP LEJEUNE



LEGEND

EXISTING	DESCRIPTION
⊕	Type II Monitoring Well
●	Soil Boring
⊕	Soil Sample Locations
⊗	Unknown Well Type
▭	Buildings and Structures
- - -	Demolished Structures
▭	Oil/Water Separators
▭	Slabs
▭	Roads, Driveways and Parking Lots
🌳	Forestland
□	Above Ground Storage Tank
⊗	Fence

NOTES

MAP ADAPTED FROM CAMP LEJEUNE GIS DATA BASE.

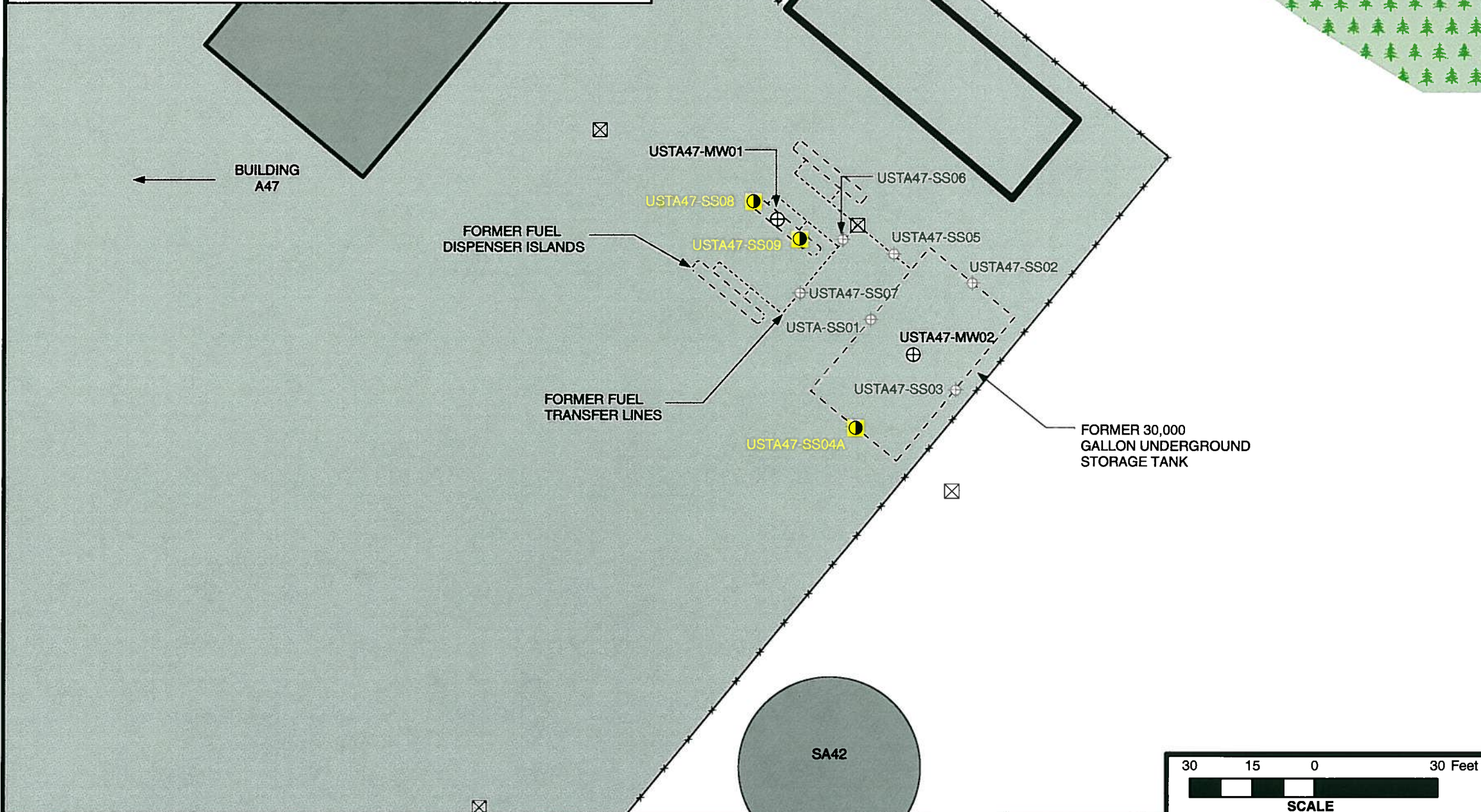


SITE PLAN WITH SOIL
LABORATORY RESULTS -
EPA METHOD 8260 + IPE + MTBE

FIGURE

2

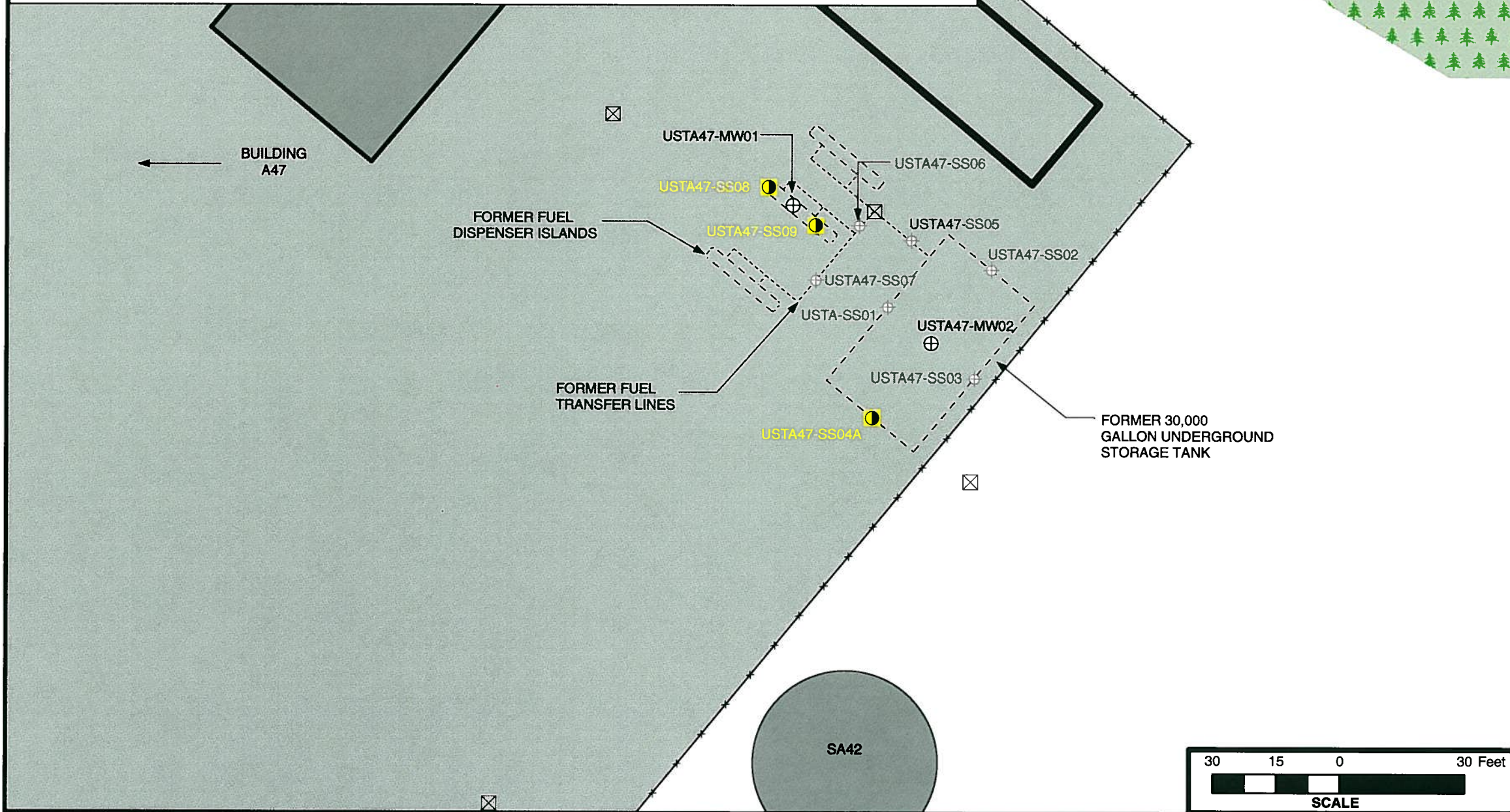
Job No.: 207-048	Date: APRIL 2008	Scale: AS SHOWN	Drawn By: KAWS	Checked By: JC
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Analytical Method: EPA Method 8270

Sample ID	Contaminant of Concern		Anthracene	Benzo[a]anthracene	Benzo[a]pyrene	Benzo[b]fluoranthene	Benzo[g,h,i]perylene	Benzo[k]fluoranthene	Bis (2-ethylhexyl) phthalate	Chrysene	Fluoranthene	Fluorene	Indeno(1,2,3-c-d)pyrene	Phenanthrene	Pyrene	All Other 8270 Compounds
	Date Collected	Sample Depth (ft. BGS)														
Residential MSCC (mg/kg)			4,600	0.88	0.088	0.88	469	9	46	88	620	620	0.88	469	469	Varies
Industrial/Commercial (mg/kg)			122,000	8	0.78	8	12,264	78	410	780	16,400	16,400	8	12,264	12,264	Varies
Soil to Groundwater MSCC (mg/kg)			1,000	0.34	0.091	1.2	6,700	12	5.6	38	280	44	3.3	60	290	Varies
USTA47-SS08	3/5/2008	2-4	<0.049	<0.058	<0.051	<0.059	<0.091	<0.065	0.074 J	<0.036	<0.047	<0.042	<0.086	<0.038	<0.064	BQL
USTA47-SS09	3/5/2008	2-4	0.942	0.900	0.288 J	0.544	0.091 J	0.233 J	0.308 J	1.00	4.80	0.104 J	0.104 J	0.79	4.48	BQL
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 ft. BLS = feet below land surface
 < = Less than method detection limit



ADDENDUM SOIL SAMPLING PHASE I LSA FORMER CERCLA SITE A-47-3 MCB CAMP LEJEUNE



LEGEND

EXISTING	DESCRIPTION
⊕	Type II Monitoring Well
●	Soil Boring
⊕	Soil Sample Locations
⊗	Unknown Well Type
▭	Buildings and Structures
- - -	Demolished Structures
▭	Oil/Water Separators
▭	Slabs
▭	Roads, Driveways and Parking Lots
🌳	Forestland
□	Above Ground Storage Tank
⊗	Fence

NOTES

MAP ADAPTED FROM CAMP LEJEUNE GIS DATA BASE.



SITE PLAN WITH SOIL
 LABORATORY RESULTS -
 EPA METHOD 8270

FIGURE
3



Job No.: 207-048	Date: APRIL 2008	Scale: AS SHOWN	Drawn By: KAWS	Checked By: JC
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Analytical Method: MADEP VPH/EPH

Sample ID	Contaminant of Concern		C ₅ -C ₈ Aliphatics	C ₉ -C ₁₂ Aliphatics	C ₉ -C ₁₀ Aromatics	C ₉ -C ₁₈ Aliphatics	C ₁₉ -C ₃₆ Aliphatics	C ₁₁ -C ₂₂ Aromatics
	Date Collected	Sample Depth (ft. BLS)						
USTA47-SS08	3/5/2008	2-4	<10.0	15.6	18.7	384	310	199
USTA47-SS09	3/5/2008	2-4	<10.0	<10.0	<10.0	1,250	696	693

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ADDENDUM SOIL SAMPLING PHASE I LSA FORMER CERCLA SITE A-47-3 MCB CAMP LEJEUNE



LEGEND

EXISTING	DESCRIPTION
⊕	Type II Monitoring Well
●	Soil Boring
⊕	Soil Sample Locations
⊗	Unknown Well Type
▭	Buildings and Structures
- - -	Demolished Structures
▭	Oil/Water Separators
▭	Slabs
▭	Roads, Driveways and Parking Lots
🌳	Forestland
⊠	Above Ground Storage Tank
⊗	Fence

NOTES

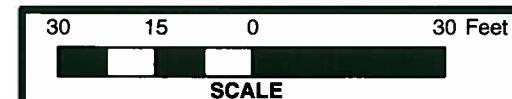
MAP ADAPTED FROM CAMP LEJEUNE GIS DATA BASE.



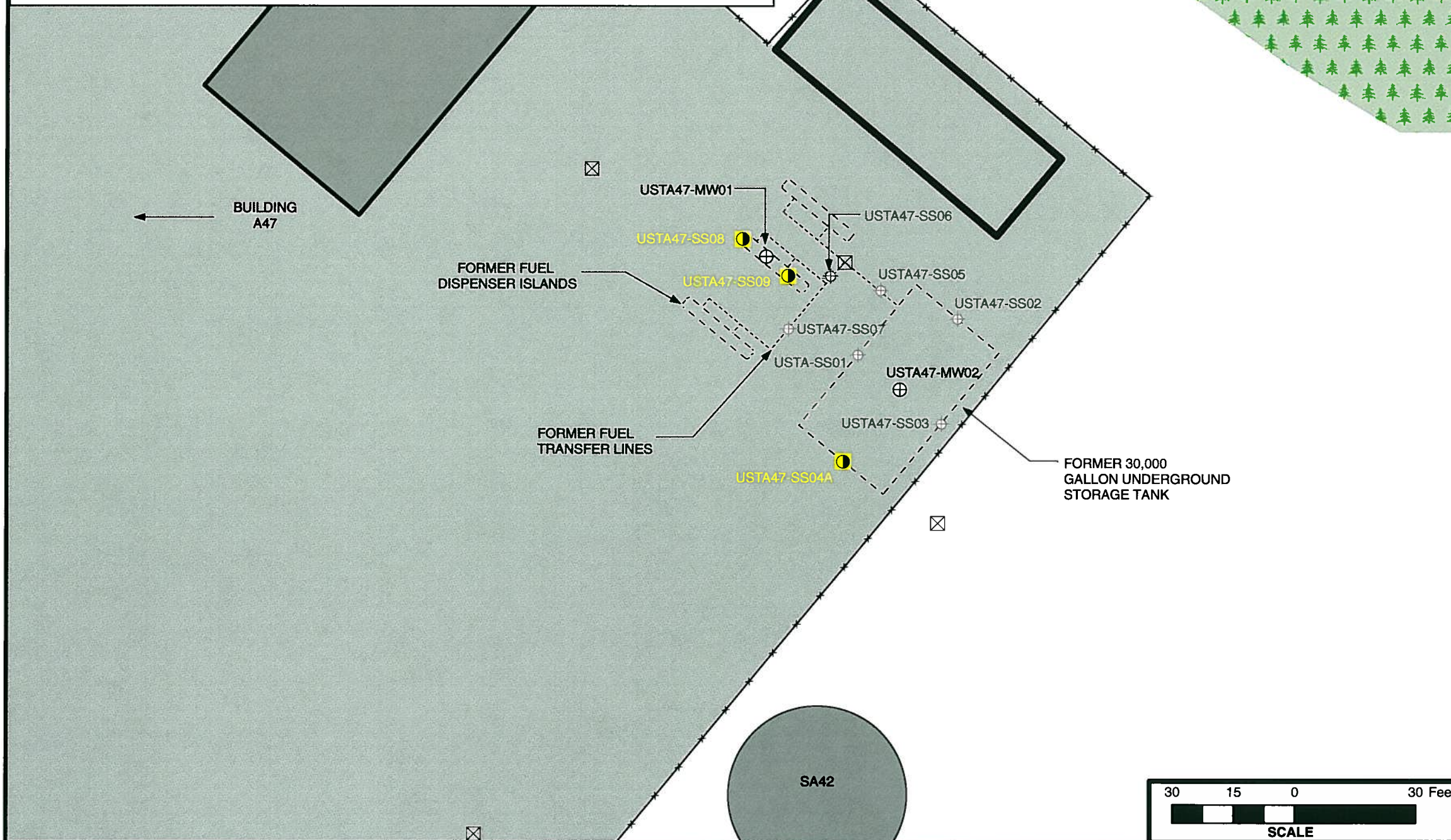
SITE PLAN WITH SOIL
 LABORATORY RESULTS -
 MADEP VPH/EPH

FIGURE

4



Job No.: 207-048	Date: APRIL 2008	Scale: AS SHOWN	Drawn By: KAWS	Checked By: JC
---------------------	---------------------	--------------------	-------------------	-------------------



BORING LOGS

BORING LOG

CATLIN

ENGINEERS and SCIENTISTS
207-048
Wilmington, NC

SHEET 1 OF 1

PROJECT NO.: 207-048	STATE: NC	COUNTY: Onslow	LOCATION: Camp Lejuene
PROJECT NAME: Former CERCLA Site USTA47		LOGGED BY: Steve Tyler	BORING ID: USTA47-SS04A
		DRILLER: William J. Miller	
NORTHING:	EASTING:	CREW:	
SYSTEM:	BORING LOCATION: See Map		LAND ELEV.: NM
DRILL MACHINE: Power Probe	METHOD: Direct Push	0 HOUR DTW: NA	BORING DEPTH: 4.0
START DATE: 3/5/08	FINISH DATE: 3/5/08	24 HOUR DTW:	ROCK DEPTH: --

DEPTH	BLOW COUNT 0.5 0.5 0.5 0.5	MOI.	OVA RESULTS (ppm)				LAB.	U S C S	L O G	SOIL AND ROCK DESCRIPTION	
			0	1000	2000	3000				4000	DEPTH
0.0									0.0	LAND SURFACE	
	P U S H						GW			CONCRETE. Silt/Sand/Gravel base.	
1.0									1.3		
	P U S H					USTA12 SS04A					
2.0							SM			Tan/olive SILTY fine SAND.	
	P U S H										
4.0									4.0	Boring Terminated at Depth 4.0 ft	

CATLIN.ENVIRO.LOG 207-048.LEJUNE.LSAS.USTA-47.GEL.CATLIN.GDT 4/11/08

▽ = 0hr. DTW

▼ = 24hr. DTW

BORING LOG

CATLIN

ENGINEERS and SCIENTISTS
207-048
Wilmington, NC

SHEET 1 OF 1

PROJECT NO.: 207-048	STATE: NC	COUNTY: Onslow	LOCATION: Camp Lejuene
PROJECT NAME: Former CERCLA Site USTA47		LOGGED BY: Steve Tyler	BORING ID: USTA47-SS08
		DRILLER: William J. Miller	
NORTHING:	EASTING:	CREW:	
SYSTEM:	BORING LOCATION: See Map		LAND ELEV.: NM
DRILL MACHINE: Power Probe	METHOD: Direct Push	0 HOUR DTW: NA	BORING DEPTH: 4.0
START DATE: 3/5/08	FINISH DATE: 3/5/08	24 HOUR DTW:	ROCK DEPTH: --

DEPTH	BLOW COUNT 0.5 0.5 0.5 0.5	MOI.	OVA RESULTS (ppm)					LAB.	U S C S	L O G	SOIL AND ROCK DESCRIPTION	
			0	1000	2000	3000	4000				DEPTH	ELEVATION
0.0										0.0	LAND SURFACE	
0.8	P U S H								GW	1.3	CONCRETE. Silt/Sand/Gravel base.	
2.0	P U S H		▲0.2						SM		Tan/olive SILTY fine SAND.	
4.0	P U S H		▲2.8				USTA12 SS08			4.0	Boring Terminated at Depth 4.0 ft	

CATLIN ENVIRO. LOG_207-048_LEJUENE_1 SAS_USTA-47.GPJ_CATLIN.GDT_3/2/08

▽ = 0hr. DTW

▼ = 24hr. DTW

BORING LOG

CATLIN

ENGINEERS and SCIENTISTS
207-048
Wilmington, NC

SHEET 1 OF 1

PROJECT NO.: 207-048	STATE: NC	COUNTY: Onslow	LOCATION: Camp Lejuene
PROJECT NAME: Former CERCLA Site USTA47		LOGGED BY: Steve Tyler	BORING ID: USTA47-SS09
DRILLER: William J. Miller		CREW:	
NORTHING:	EASTING:	BORING LOCATION: See Map	
SYSTEM:		LAND ELEV.: NM	
DRILL MACHINE: Power Probe	METHOD: Direct Push	0 HOUR DTW: NA	BORING DEPTH: 4.0
START DATE: 3/5/08	FINISH DATE: 3/5/08	24 HOUR DTW:	ROCK DEPTH: --

DEPTH	BLOW COUNT 0.5 0.5 0.5 0.5	MOI.	OVA RESULTS (ppm)					LAB.	U S C S	L O G	DEPTH	SOIL AND ROCK DESCRIPTION	ELEVATION
			0	1000	2000	3000	4000						
0.0										0.0	LAND SURFACE		
0.8	P U S H									1.3	CONCRETE. Silt/Sand/Gravel base.		
2.0	P U S H		▲0.8								Tan/olive SILTY fine SAND.		
4.0	P U S H		▲1.8				USTA12 SS09			4.0	Boring Terminated at Depth 4.0 ft		

CATLIN ENVRO. LOG_207-048_LEJUENE_LAS_USTA-47.GPJ_CATLIN.GDT_3/2/08

▽ = 0hr. DTW

▼ = 24hr. DTW

LABORATORY REPORT AND CHAIN-OF-CUSTODY DOCUMENTATION



Mr. Jason Cook
Richard Catlin & Associates
P.O. Box 10279
Wilmington NC 28404-0279

Report Number: G128-2145

Client Project: USTA-47

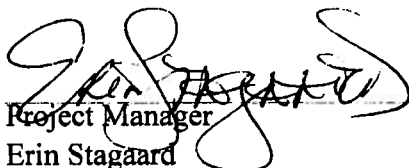
Dear Mr. Cook:

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 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.


Project Manager
Erin Stagaard


Date



Case Narrative

Catlin Engineers and Scientists

SGS Project: **G128-2145**

Project Name: **USTA-47**


SGS Environmental Services Inc.

March 18, 2008

- Three soil samples were accepted into the laboratory on March 7, 2008 for 8260, 8270, VPH and EPH analyses. The samples were received in good condition, within temperature and holding time limits.
- All extractions and analyses were completed within holding time limits, with the following quality control exceptions.
- Referring to the 8260 analysis, Methylene Chloride and Toluene were detected in the Trip Blank associated with Catlin project USTA12, SGS project number G128-2144. The level at which they were detected was below the reporting limit but greater than the method detection limit. Methylene Chloride and Toluene was also detected in both samples G128-2145-1B and G128-2145-2B at similar levels. Although these compounds were not detected in the associated method blank, these compounds are common laboratory solvents and their detection is likely a laboratory artifact.

 _____ Date 3.18.08

Data Review

 _____ Date 3/18/08

Secondary Review



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 = Reporting 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

% solids = 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.


**Results for Volatiles
by GCMS 8260-5035**

 47 S.T.
 Client Sample ID: USTA-2-SS08 (2-4')

Client Project ID: USTA-47

Lab Sample ID G128-2145-1B

Lab Project ID: G128-2145

Report Basis: Dry Weight

Analyzed By: MJC

Date Collected: 03-05-2008 13:00

Date Received: 3/7/2008

Matrix: Soil

Sample Amount: 5.51 g

%Solids: 91.8

Report Name Compound	Result MG/KG	Quantitation Limit MG/KG	MDL MG/KG	Dilution Factor	Date Analyzed	Flag
Acetone	0.0595	0.0493	0.00682	1	3/13/2008	
Benzene	BQL	0.00493	0.00106	1	3/13/2008	
Bromobenzene	BQL	0.00493	0.00102	1	3/13/2008	
Bromochloromethane	BQL	0.00493	0.00170	1	3/13/2008	
Bromodichloromethane	BQL	0.00493	0.00098	1	3/13/2008	
Bromoform	BQL	0.00493	0.00099	1	3/13/2008	
Bromomethane	BQL	0.00493	0.00104	1	3/13/2008	
2-Butanone	0.0107	0.0247	0.00536	1	3/13/2008	J
n-Butylbenzene	BQL	0.00493	0.00094	1	3/13/2008	
sec-Butylbenzene	BQL	0.00493	0.00100	1	3/13/2008	
tert-Butylbenzene	BQL	0.00493	0.00110	1	3/13/2008	
Carbon disulfide	BQL	0.00493	0.00264	1	3/13/2008	
Carbon tetrachloride	BQL	0.00493	0.00101	1	3/13/2008	
Chlorobenzene	BQL	0.00493	0.00117	1	3/13/2008	
Chloroethane	BQL	0.00493	0.00157	1	3/13/2008	
Chloroform	BQL	0.00493	0.00118	1	3/13/2008	
Chloromethane	BQL	0.00493	0.00111	1	3/13/2008	
2-Chlorotoluene	BQL	0.00493	0.00100	1	3/13/2008	
4-Chlorotoluene	BQL	0.00493	0.00123	1	3/13/2008	
Dibromochloromethane	BQL	0.00493	0.00136	1	3/13/2008	
1,2-Dibromo-3-chloropropane	BQL	0.00493	0.00143	1	3/13/2008	
Dibromomethane	BQL	0.00493	0.00149	1	3/13/2008	
1,2-Dibromoethane (EDB)	BQL	0.00493	0.00111	1	3/13/2008	
1,2-Dichlorobenzene	BQL	0.00493	0.00127	1	3/13/2008	
1,3-Dichlorobenzene	BQL	0.00493	0.00126	1	3/13/2008	
1,4-Dichlorobenzene	BQL	0.00493	0.00104	1	3/13/2008	
trans-1,4-Dichloro-2-butene	BQL	0.00493	0.00136	1	3/13/2008	
1,1-Dichloroethane	BQL	0.00493	0.00105	1	3/13/2008	
1,1-Dichloroethene	BQL	0.00493	0.00146	1	3/13/2008	
1,2-Dichloroethane	BQL	0.00493	0.00130	1	3/13/2008	
cis-1,2-Dichloroethene	BQL	0.00493	0.00126	1	3/13/2008	
trans-1,2-dichloroethene	BQL	0.00493	0.00111	1	3/13/2008	
1,2-Dichloropropane	BQL	0.00493	0.00116	1	3/13/2008	
1,3-Dichloropropane	BQL	0.00493	0.00110	1	3/13/2008	
2,2-Dichloropropane	BQL	0.00493	0.00118	1	3/13/2008	
1,1-Dichloropropene	BQL	0.00493	0.00155	1	3/13/2008	
cis-1,3-Dichloropropene	BQL	0.00493	0.00082	1	3/13/2008	
trans-1,3-Dichloropropene	BQL	0.00493	0.00095	1	3/13/2008	
Dichlorodifluoromethane	BQL	0.00493	0.00130	1	3/13/2008	
Diisopropyl ether (DIPE)	BQL	0.00493	0.00111	1	3/13/2008	
Ethylbenzene	BQL	0.00493	0.00085	1	3/13/2008	
Hexachlorobutadiene	BQL	0.00493	0.00096	1	3/13/2008	
2-Hexanone	BQL	0.00493	0.00320	1	3/13/2008	
Iodomethane	BQL	0.00493	0.00107	1	3/13/2008	



Results for Volatiles
by GCMS 8260-5035

47 S.T.
Client Sample ID: USTA-47-SS08 (2-4')
Client Project ID: USTA-47
Lab Sample ID G128-2145-1B
Lab Project ID: G128-2145
Report Basis: Dry Weight

Analyzed By: MJC
Date Collected: 03-05-2008 13:00
Date Received: 3/7/2008
Matrix: Soil
Sample Amount: 5.51 g
%Solids: 91.8

Report Name Compound	Result MG/KG	Quantitation Limit MG/KG	MDL MG/KG	Dilution Factor	Date Analyzed	Flag
Isopropylbenzene	BQL	0.00493	0.00088	1	3/13/2008	
4-Isopropyltoluene	BQL	0.00493	0.00106	1	3/13/2008	
Methylene chloride	0.00179	0.0197	0.00117	1	3/13/2008	J
4-Methyl-2-pentanone	BQL	0.00493	0.00457	1	3/13/2008	
Methyl-tert-butyl ether (MTBE)	BQL	0.00493	0.00109	1	3/13/2008	
Naphthalene	BQL	0.00493	0.00084	1	3/13/2008	
n-Propyl benzene	BQL	0.00493	0.00124	1	3/13/2008	
Styrene	BQL	0.00493	0.00109	1	3/13/2008	
1,1,1,2-Tetrachloroethane	BQL	0.00493	0.00101	1	3/13/2008	
1,1,2,2-Tetrachloroethane	BQL	0.00493	0.00111	1	3/13/2008	
Tetrachloroethene	BQL	0.00493	0.00090	1	3/13/2008	
Toluene	0.00115	0.00493	0.00098	1	3/13/2008	J
1,2,3-Trichlorobenzene	BQL	0.00493	0.00103	1	3/13/2008	
1,2,4-Trichlorobenzene	BQL	0.00493	0.00102	1	3/13/2008	
Trichloroethene	BQL	0.00493	0.00094	1	3/13/2008	
1,1,1-Trichloroethane	BQL	0.00493	0.00111	1	3/13/2008	
1,1,2-Trichloroethane	BQL	0.00493	0.00162	1	3/13/2008	
Trichlorofluoromethane	BQL	0.00493	0.00102	1	3/13/2008	
1,2,3-Trichloropropane	BQL	0.00493	0.00122	1	3/13/2008	
1,2,4-Trimethylbenzene	BQL	0.00493	0.00124	1	3/13/2008	
1,3,5-Trimethylbenzene	BQL	0.00493	0.00112	1	3/13/2008	
Vinyl chloride	BQL	0.00493	0.00134	1	3/13/2008	
m-,p-Xylene	BQL	0.00986	0.00189	1	3/13/2008	
o-Xylene	BQL	0.00493	0.00096	1	3/13/2008	

	Spike Added	Spike Result	Percent Recovered
1,2-Dichloroethane-d4	0.05	0.0594	119
Toluene-d8	0.05	0.0433	87
4-Bromofluorobenzene	0.05	0.0307	61

Comments:

Flags:

BQL = Below Quantitation Limits.

Analyst: cl

Reviewed By: acc



**Results for Volatiles
by GCMS 8260-5035**

47 S.T.
Client Sample ID: USTA-SS09 (2-4')
Client Project ID: USTA-47
Lab Sample ID G128-2145-2B
Lab Project ID: G128-2145
Report Basis: Dry Weight

Analyzed By: MJC
Date Collected: 03-05-2008 12:30
Date Received: 3/7/2008
Matrix: Soil
Sample Amount: 5.48 g
%Solids: 93.1

Report Name Compound	Result MG/KG	Quantitation Limit MG/KG	MDL MG/KG	Dilution Factor	Date Analyzed	Flag
Acetone	0.0730	0.0489	0.00676	1	3/13/2008	
Benzene	BQL	0.00489	0.00105	1	3/13/2008	
Bromobenzene	BQL	0.00489	0.00101	1	3/13/2008	
Bromochloromethane	BQL	0.00489	0.00168	1	3/13/2008	
Bromodichloromethane	BQL	0.00489	0.00097	1	3/13/2008	
Bromoform	BQL	0.00489	0.00098	1	3/13/2008	
Bromomethane	BQL	0.00489	0.00103	1	3/13/2008	
2-Butanone	0.0100	0.0245	0.00531	1	3/13/2008	J
n-Butylbenzene	BQL	0.00489	0.00093	1	3/13/2008	
sec-Butylbenzene	BQL	0.00489	0.00099	1	3/13/2008	
tert-Butylbenzene	BQL	0.00489	0.00110	1	3/13/2008	
Carbon disulfide	BQL	0.00489	0.00262	1	3/13/2008	
Carbon tetrachloride	BQL	0.00489	0.00100	1	3/13/2008	
Chlorobenzene	BQL	0.00489	0.00116	1	3/13/2008	
Chloroethane	BQL	0.00489	0.00156	1	3/13/2008	
Chloroform	BQL	0.00489	0.00117	1	3/13/2008	
Chloromethane	BQL	0.00489	0.00111	1	3/13/2008	
2-Chlorotoluene	BQL	0.00489	0.00099	1	3/13/2008	
4-Chlorotoluene	BQL	0.00489	0.00122	1	3/13/2008	
Dibromochloromethane	BQL	0.00489	0.00135	1	3/13/2008	
1,2-Dibromo-3-chloropropane	BQL	0.00489	0.00142	1	3/13/2008	
Dibromomethane	BQL	0.00489	0.00148	1	3/13/2008	
1,2-Dibromoethane (EDB)	BQL	0.00489	0.00111	1	3/13/2008	
1,2-Dichlorobenzene	BQL	0.00489	0.00126	1	3/13/2008	
1,3-Dichlorobenzene	BQL	0.00489	0.00125	1	3/13/2008	
1,4-Dichlorobenzene	BQL	0.00489	0.00103	1	3/13/2008	
trans-1,4-Dichloro-2-butene	BQL	0.00489	0.00135	1	3/13/2008	
1,1-Dichloroethane	BQL	0.00489	0.00104	1	3/13/2008	
1,1-Dichloroethene	BQL	0.00489	0.00145	1	3/13/2008	
1,2-Dichloroethane	BQL	0.00489	0.00129	1	3/13/2008	
cis-1,2-Dichloroethene	BQL	0.00489	0.00125	1	3/13/2008	
trans-1,2-dichloroethene	BQL	0.00489	0.00111	1	3/13/2008	
1,2-Dichloropropane	BQL	0.00489	0.00115	1	3/13/2008	
1,3-Dichloropropane	BQL	0.00489	0.00110	1	3/13/2008	
2,2-Dichloropropane	BQL	0.00489	0.00117	1	3/13/2008	
1,1-Dichloropropene	BQL	0.00489	0.00154	1	3/13/2008	
cis-1,3-Dichloropropene	BQL	0.00489	0.00082	1	3/13/2008	
trans-1,3-Dichloropropene	BQL	0.00489	0.00094	1	3/13/2008	
Dichlorodifluoromethane	BQL	0.00489	0.00129	1	3/13/2008	
Diisopropyl ether (DIPE)	BQL	0.00489	0.00111	1	3/13/2008	
Ethylbenzene	BQL	0.00489	0.00085	1	3/13/2008	
Hexachlorobutadiene	BQL	0.00489	0.00095	1	3/13/2008	
2-Hexanone	BQL	0.00489	0.00317	1	3/13/2008	
Iodomethane	BQL	0.00489	0.00106	1	3/13/2008	



Results for Volatiles
by GCMS 8260-5035

47 S.T.
Client Sample ID: USTA-47-SS09 (2-4')
Client Project ID: USTA-47
Lab Sample ID G128-2145-2B
Lab Project ID: G128-2145
Report Basis: Dry Weight

Analyzed By: MJC
Date Collected: 03-05-2008 12:30
Date Received: 3/7/2008
Matrix: Soil
Sample Amount: 5.48 g
%Solids: 93.1

Report Name Compound	Result MG/KG	Quantitation Limit MG/KG	MDL MG/KG	Dilution Factor	Date Analyzed	Flag
Isopropylbenzene	BQL	0.00489	0.00087	1	3/13/2008	
4-Isopropyltoluene	BQL	0.00489	0.00105	1	3/13/2008	
Methylene chloride	0.00168	0.0196	0.00116	1	3/13/2008	J
4-Methyl-2-pentanone	BQL	0.00489	0.00453	1	3/13/2008	
Methyl-tert-butyl ether (MTBE)	BQL	0.00489	0.00109	1	3/13/2008	
Naphthalene	BQL	0.00489	0.00083	1	3/13/2008	
n-Propyl benzene	BQL	0.00489	0.00123	1	3/13/2008	
Styrene	BQL	0.00489	0.00108	1	3/13/2008	
1,1,1,2-Tetrachloroethane	BQL	0.00489	0.00100	1	3/13/2008	
1,1,2,2-Tetrachloroethane	BQL	0.00489	0.00111	1	3/13/2008	
Tetrachloroethene	BQL	0.00489	0.00090	1	3/13/2008	
Toluene	0.00139	0.00489	0.00098	1	3/13/2008	J
1,2,3-Trichlorobenzene	BQL	0.00489	0.00102	1	3/13/2008	
1,2,4-Trichlorobenzene	BQL	0.00489	0.00101	1	3/13/2008	
Trichloroethene	BQL	0.00489	0.00093	1	3/13/2008	
1,1,1-Trichloroethane	BQL	0.00489	0.00111	1	3/13/2008	
1,1,2-Trichloroethane	BQL	0.00489	0.00160	1	3/13/2008	
Trichlorofluoromethane	BQL	0.00489	0.00101	1	3/13/2008	
1,2,3-Trichloropropane	BQL	0.00489	0.00121	1	3/13/2008	
1,2,4-Trimethylbenzene	BQL	0.00489	0.00123	1	3/13/2008	
1,3,5-Trimethylbenzene	BQL	0.00489	0.00112	1	3/13/2008	
Vinyl chloride	BQL	0.00489	0.00133	1	3/13/2008	
m-,p-Xylene	BQL	0.00978	0.00188	1	3/13/2008	
o-Xylene	BQL	0.00489	0.00095	1	3/13/2008	

	Spike Added	Spike Result	Percent Recovered
1,2-Dichloroethane-d4	0.05	0.0978	196 #
Toluene-d8	0.05	0.0439	88
4-Bromofluorobenzene	0.05	0.0345	69

Comments:

Surrogate recoveries were confirmed by duplicate analysis.

Flags:

BQL = Below Quantitation Limits.

Analyst: AK

Reviewed By: [Signature]



**Results for Semivolatiles
by GCMS 8270**

47 S.T.
Client Sample ID: USTA42-SS08 (2-4')
Client Project ID: USTA-47
Lab Sample ID: G128-2145-1H
Lab Project ID: G128-2145
Report Basis: Dry weight

Analyzed By: DCS
Date Collected: 3/5/2008 13:00
Date Received: 3/7/2008
Date Extracted: 3/10/2008
Matrix: Soil
% Solids: 91.83

Compound	Result mg/Kg	RL mg/Kg	MDL mg/Kg	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	0.335	0.048	1	3/11/2008	
Acenaphthylene	BQL	0.335	0.045	1	3/11/2008	
Anthracene	BQL	0.335	0.049	1	3/11/2008	
Benzo[a]anthracene	BQL	0.335	0.058	1	3/11/2008	
Benzo[a]pyrene	BQL	0.335	0.051	1	3/11/2008	
Benzo[b]fluoranthene	BQL	0.335	0.059	1	3/11/2008	
Benzo[g,h,i]perylene	BQL	0.335	0.091	1	3/11/2008	
Benzo[k]fluoranthene	BQL	0.335	0.065	1	3/11/2008	
Benzoic Acid	BQL	0.670	0.670	1	3/11/2008	
Bis(2-chloroethoxy)methane	BQL	0.335	0.050	1	3/11/2008	
Bis(2-chloroethyl)ether	BQL	0.335	0.041	1	3/11/2008	
Bis(2-chloroisopropyl)ether	BQL	0.335	0.042	1	3/11/2008	
Bis(2-ethylhexyl)phthalate	0.074	0.335	0.045	1	3/11/2008	J
4-bromophenyl phenyl ether	BQL	0.335	0.057	1	3/11/2008	
Butylbenzylphthalate	BQL	0.335	0.052	1	3/11/2008	
2-Chloronaphthalene	BQL	0.335	0.053	1	3/11/2008	
2-Chlorophenol	BQL	0.335	0.105	1	3/11/2008	
4-Chloro-3-methylphenol	BQL	0.335	0.104	1	3/11/2008	
4-Chloroaniline	BQL	1.67	0.255	1	3/11/2008	
4-Chlorophenyl phenyl ether	BQL	0.335	0.049	1	3/11/2008	
Chrysene	BQL	0.335	0.036	1	3/11/2008	
Dibenzo[a,h]anthracene	BQL	0.335	0.094	1	3/11/2008	
Dibenzofuran	BQL	0.335	0.061	1	3/11/2008	
Di-n-Butylphthalate	BQL	0.335	0.040	1	3/11/2008	
1,2-Dichlorobenzene	BQL	0.335	0.037	1	3/11/2008	
1,3-Dichlorobenzene	BQL	0.335	0.037	1	3/11/2008	
1,4-Dichlorobenzene	BQL	0.335	0.038	1	3/11/2008	
3,3'-Dichlorobenzidine	BQL	0.670	0.084	1	3/11/2008	
2,4-Dichlorophenol	BQL	0.335	0.121	1	3/11/2008	
Diethylphthalate	BQL	0.335	0.043	1	3/11/2008	
Dimethylphthalate	BQL	0.335	0.041	1	3/11/2008	
2,4-Dimethylphenol	BQL	0.335	0.239	1	3/11/2008	
Di-n-octylphthalate	BQL	0.335	0.055	1	3/11/2008	
4,6-Dinitro-2-methylphenol	BQL	1.67	0.197	1	3/11/2008	
2,4-Dinitrophenol	BQL	1.67	0.737	1	3/11/2008	
2,4-Dinitrotoluene	BQL	0.335	0.044	1	3/11/2008	
2,6-Dinitrotoluene	BQL	0.335	0.061	1	3/11/2008	
Diphenylamine *	BQL	0.335	0.033	1	3/11/2008	
Fluoranthene	BQL	0.335	0.047	1	3/11/2008	
Fluorene	BQL	0.335	0.042	1	3/11/2008	
Hexachlorobenzene	BQL	0.335	0.052	1	3/11/2008	
Hexachlorobutadiene	BQL	0.335	0.054	1	3/11/2008	
Hexachlorocyclopentadiene	BQL	0.670	0.035	1	3/11/2008	
Hexachloroethane	BQL	0.335	0.030	1	3/11/2008	
Indeno(1,2,3-c,d)pyrene	BQL	0.335	0.086	1	3/11/2008	
Isophorone	BQL	0.335	0.049	1	3/11/2008	
2-Methylnaphthalene	BQL	0.335	0.098	1	3/11/2008	



Results for Semivolatiles
by GCMS 8270

47 S.T.
Client Sample ID: USTA12-SS08 (2-4')
Client Project ID: USTA-47
Lab Sample ID: G128-2145-1H
Lab Project ID: G128-2145
Report Basis: Dry weight

Analyzed By: DCS
Date Collected: 3/5/2008 13:00
Date Received: 3/7/2008
Date Extracted: 3/10/2008
Matrix: Soil
% Solids: 91.83

Compound	Result mg/Kg	RL mg/Kg	MDL mg/Kg	Dilution Factor	Date Analyzed	Flag
2-Methylphenol	BQL	0.335	0.118	1	3/11/2008	
3- & 4-Methylphenol	BQL	0.335	0.113	1	3/11/2008	
Naphthalene	BQL	0.335	0.027	1	3/11/2008	
2-Nitroaniline	BQL	0.335	0.053	1	3/11/2008	
3-Nitroaniline	BQL	1.67	0.345	1	3/11/2008	
4-Nitroaniline	BQL	1.67	0.103	1	3/11/2008	
Nitrobenzene	BQL	0.335	0.045	1	3/11/2008	
2-Nitrophenol	BQL	0.335	0.104	1	3/11/2008	
4-Nitrophenol	BQL	1.67	0.093	1	3/11/2008	
N-Nitrosodi-n-propylamine	BQL	0.335	0.043	1	3/11/2008	
Pentachlorophenol	BQL	1.67	0.087	1	3/11/2008	
Phenanthrene	BQL	0.335	0.038	1	3/11/2008	
Phenol	BQL	0.335	0.092	1	3/11/2008	
Pyrene	BQL	0.335	0.064	1	3/11/2008	
1,2,4-Trichlorobenzene	BQL	0.335	0.042	1	3/11/2008	
2,4,5-Trichlorophenol	BQL	0.335	0.130	1	3/11/2008	
2,4,6-Trichlorophenol	BQL	0.335	0.119	1	3/11/2008	
		Spike Added	Spike Result	Percent Recovered		
2-Fluorobiphenyl		10	9.3	93		
2-Fluorophenol		10	9.7	97		
Nitrobenzene-d5		10	9.7	97		
Phenol-d6		10	9.6	96		
2,4,6-Tribromophenol		10	8.4	84		
4-Terphenyl-d14		10	9.5	95		

Comments:

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

Flags:

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

Reviewed By: ALC



**Results for Semivolatiles
by GCMS 8270**

47 S.T.
Client Sample ID: USTA-2-SS09 (2-4')
Client Project ID: USTA-47
Lab Sample ID: G128-2145-2H
Lab Project ID: G128-2145
Report Basis: Dry weight

Analyzed By: DCS
Date Collected: 3/5/2008 12:30
Date Received: 3/7/2008
Date Extracted: 3/10/2008
Matrix: Soil
% Solids: 93.1

Compound	Result mg/Kg	RL mg/Kg	MDL mg/Kg	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	0.324	0.046	1	3/11/2008	
Acenaphthylene	BQL	0.324	0.043	1	3/11/2008	
Anthracene	0.942	0.324	0.047	1	3/11/2008	
Benzo[a]anthracene	0.900	0.324	0.056	1	3/11/2008	
Benzo[a]pyrene	0.288	0.324	0.050	1	3/11/2008	J
Benzo[b]fluoranthene	0.544	0.324	0.057	1	3/11/2008	
Benzo[g,h,i]perylene	0.091	0.324	0.088	1	3/11/2008	J
Benzo[k]fluoranthene	0.233	0.324	0.063	1	3/11/2008	J
Benzoic Acid	BQL	0.648	0.648	1	3/11/2008	
Bis(2-chloroethoxy)methane	BQL	0.324	0.048	1	3/11/2008	
Bis(2-chloroethyl)ether	BQL	0.324	0.039	1	3/11/2008	
Bis(2-chloroisopropyl)ether	BQL	0.324	0.041	1	3/11/2008	
Bis(2-ethylhexyl)phthalate	0.308	0.324	0.043	1	3/11/2008	J
4-bromophenyl phenyl ether	BQL	0.324	0.055	1	3/11/2008	
Butylbenzylphthalate	BQL	0.324	0.050	1	3/11/2008	
2-Chloronaphthalene	BQL	0.324	0.051	1	3/11/2008	
2-Chlorophenol	BQL	0.324	0.101	1	3/11/2008	
4-Chloro-3-methylphenol	BQL	0.324	0.101	1	3/11/2008	
4-Chloroaniline	BQL	1.62	0.247	1	3/11/2008	
4-Chlorophenyl phenyl ether	BQL	0.324	0.048	1	3/11/2008	
Chrysene	1.00	0.324	0.035	1	3/11/2008	
Dibenzo[a,h]anthracene	BQL	0.324	0.091	1	3/11/2008	
Dibenzofuran	BQL	0.324	0.059	1	3/11/2008	
Di-n-Butylphthalate	BQL	0.324	0.039	1	3/11/2008	
1,2-Dichlorobenzene	BQL	0.324	0.036	1	3/11/2008	
1,3-Dichlorobenzene	BQL	0.324	0.035	1	3/11/2008	
1,4-Dichlorobenzene	BQL	0.324	0.037	1	3/11/2008	
3,3'-Dichlorobenzidine	BQL	0.648	0.082	1	3/11/2008	
2,4-Dichlorophenol	BQL	0.324	0.117	1	3/11/2008	
Diethylphthalate	BQL	0.324	0.042	1	3/11/2008	
Dimethylphthalate	BQL	0.324	0.039	1	3/11/2008	
2,4-Dimethylphenol	BQL	0.324	0.232	1	3/11/2008	
Di-n-octylphthalate	BQL	0.324	0.053	1	3/11/2008	
4,6-Dinitro-2-methylphenol	BQL	1.62	0.191	1	3/11/2008	
2,4-Dinitrophenol	BQL	1.62	0.713	1	3/11/2008	
2,4-Dinitrotoluene	BQL	0.324	0.042	1	3/11/2008	
2,6-Dinitrotoluene	BQL	0.324	0.059	1	3/11/2008	
Diphenylamine *	BQL	0.324	0.032	1	3/11/2008	
Fluoranthene	4.80	0.324	0.045	1	3/11/2008	
Fluorene	0.104	0.324	0.040	1	3/11/2008	J
Hexachlorobenzene	BQL	0.324	0.050	1	3/11/2008	
Hexachlorobutadiene	BQL	0.324	0.052	1	3/11/2008	
Hexachlorocyclopentadiene	BQL	0.648	0.033	1	3/11/2008	
Hexachloroethane	BQL	0.324	0.029	1	3/11/2008	
Indeno(1,2,3-c,d)pyrene	0.104	0.324	0.083	1	3/11/2008	J
Isophorone	BQL	0.324	0.048	1	3/11/2008	
2-Methylnaphthalene	BQL	0.324	0.095	1	3/11/2008	



**Results for Semivolatiles
by GCMS 8270**

47 S.T.
 Client Sample ID: USTA12-SS09 (2-4')
 Client Project ID: USTA-47
 Lab Sample ID: G128-2145-2H
 Lab Project ID: G128-2145
 Report Basis: Dry weight

Analyzed By: DCS
 Date Collected: 3/5/2008 12:30
 Date Received: 3/7/2008
 Date Extracted: 3/10/2008
 Matrix: Soil
 % Solids: 93.1

Compound	Result mg/Kg	RL mg/Kg	MDL mg/Kg	Dilution Factor	Date Analyzed	Flag
2-Methylphenol	BQL	0.324	0.114	1	3/11/2008	
3- & 4-Methylphenol	BQL	0.324	0.110	1	3/11/2008	
Naphthalene	BQL	0.324	0.026	1	3/11/2008	
2-Nitroaniline	BQL	0.324	0.051	1	3/11/2008	
3-Nitroaniline	BQL	1.62	0.334	1	3/11/2008	
4-Nitroaniline	BQL	1.62	0.100	1	3/11/2008	
Nitrobenzene	BQL	0.324	0.044	1	3/11/2008	
2-Nitrophenol	BQL	0.324	0.100	1	3/11/2008	
4-Nitrophenol	BQL	1.62	0.090	1	3/11/2008	
N-Nitrosodi-n-propylamine	BQL	0.324	0.041	1	3/11/2008	
Pentachlorophenol	BQL	1.62	0.085	1	3/11/2008	
Phenanthrene	0.790	0.324	0.037	1	3/11/2008	
Phenol	BQL	0.324	0.089	1	3/11/2008	
Pyrene	4.48	0.324	0.062	1	3/11/2008	
1,2,4-Trichlorobenzene	BQL	0.324	0.041	1	3/11/2008	
2,4,5-Trichlorophenol	BQL	0.324	0.125	1	3/11/2008	
2,4,6-Trichlorophenol	BQL	0.324	0.115	1	3/11/2008	
		Spike Added	Spike Result	Percent Recovered		
2-Fluorobiphenyl		10	9.5	95		
2-Fluorophenol		10	8.9	89		
Nitrobenzene-d5		10	9.6	96		
Phenol-d6		10	8.9	89		
2,4,6-Tribromophenol		10	7.9	79		
4-Terphenyl-d14		10	9.6	96		

Comments:

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

Flags:

BQL = Below Quantitation Limits.

J = Detected below the quantitation limit.

Reviewed By: alc



**Results for Semivolatiles
by GCMS 8270**

47 S.T.
 Client Sample ID: USTA42-SS04A (1-2')
 Client Project ID: USTA-47
 Lab Sample ID: G128-2145-3B
 Lab Project ID: G128-2145
 Report Basis: Dry weight

Analyzed By: DCS
 Date Collected: 3/5/2008 13:20
 Date Received: 3/7/2008
 Date Extracted: 3/10/2008
 Matrix: Soil
 % Solids: 91.45

Compound	Result mg/Kg	RL mg/Kg	MDL mg/Kg	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	0.333	0.048	1	3/11/2008	
Acenaphthylene	BQL	0.333	0.044	1	3/11/2008	
Anthracene	BQL	0.333	0.048	1	3/11/2008	
Benzo[a]anthracene	0.100	0.333	0.058	1	3/11/2008	J
Benzo[a]pyrene	0.063	0.333	0.051	1	3/11/2008	J
Benzo[b]fluoranthene	0.113	0.333	0.058	1	3/11/2008	J
Benzo[g,h,i]perylene	BQL	0.333	0.091	1	3/11/2008	
Benzo[k]fluoranthene	BQL	0.333	0.064	1	3/11/2008	
Benzoic Acid	BQL	0.667	0.667	1	3/11/2008	
Bis(2-chloroethoxy)methane	BQL	0.333	0.050	1	3/11/2008	
Bis(2-chloroethyl)ether	BQL	0.333	0.040	1	3/11/2008	
Bis(2-chloroisopropyl)ether	BQL	0.333	0.042	1	3/11/2008	
Bis(2-ethylhexyl)phthalate	1.07	0.333	0.045	1	3/11/2008	
4-bromophenyl phenyl ether	BQL	0.333	0.056	1	3/11/2008	
Butylbenzylphthalate	BQL	0.333	0.051	1	3/11/2008	
2-Chloronaphthalene	BQL	0.333	0.052	1	3/11/2008	
2-Chlorophenol	BQL	0.333	0.104	1	3/11/2008	
4-Chloro-3-methylphenol	BQL	0.333	0.104	1	3/11/2008	
4-Chloroaniline	BQL	1.67	0.254	1	3/11/2008	
4-Chlorophenyl phenyl ether	BQL	0.333	0.049	1	3/11/2008	
Chrysene	0.137	0.333	0.036	1	3/11/2008	J
Dibenzo[a,h]anthracene	BQL	0.333	0.093	1	3/11/2008	
Dibenzofuran	BQL	0.333	0.061	1	3/11/2008	
Di-n-Butylphthalate	BQL	0.333	0.040	1	3/11/2008	
1,2-Dichlorobenzene	BQL	0.333	0.037	1	3/11/2008	
1,3-Dichlorobenzene	BQL	0.333	0.036	1	3/11/2008	
1,4-Dichlorobenzene	BQL	0.333	0.038	1	3/11/2008	
3,3'-Dichlorobenzidine	BQL	0.667	0.084	1	3/11/2008	
2,4-Dichlorophenol	BQL	0.333	0.120	1	3/11/2008	
Diethylphthalate	BQL	0.333	0.043	1	3/11/2008	
Dimethylphthalate	BQL	0.333	0.040	1	3/11/2008	
2,4-Dimethylphenol	BQL	0.333	0.238	1	3/11/2008	
Di-n-octylphthalate	BQL	0.333	0.055	1	3/11/2008	
4,6-Dinitro-2-methylphenol	BQL	1.67	0.196	1	3/11/2008	
2,4-Dinitrophenol	BQL	1.67	0.734	1	3/11/2008	
2,4-Dinitrotoluene	BQL	0.333	0.043	1	3/11/2008	
2,6-Dinitrotoluene	BQL	0.333	0.061	1	3/11/2008	
Diphenylamine *	BQL	0.333	0.033	1	3/11/2008	
Fluoranthene	0.273	0.333	0.047	1	3/11/2008	J
Fluorene	BQL	0.333	0.041	1	3/11/2008	
Hexachlorobenzene	BQL	0.333	0.051	1	3/11/2008	
Hexachlorobutadiene	BQL	0.333	0.053	1	3/11/2008	
Hexachlorocyclopentadiene	BQL	0.667	0.034	1	3/11/2008	
Hexachloroethane	BQL	0.333	0.030	1	3/11/2008	
Indeno(1,2,3-c,d)pyrene	0.093	0.333	0.085	1	3/11/2008	J
Isophorone	BQL	0.333	0.049	1	3/11/2008	
2-Methylnaphthalene	BQL	0.333	0.097	1	3/11/2008	



**Results for Semivolatiles
by GCMS 8270**

47 S.T.
Client Sample ID: USTA42-SS04A (1-2')
Client Project ID: USTA-47
Lab Sample ID: G128-2145-3B
Lab Project ID: G128-2145
Report Basis: Dry weight

Analyzed By: DCS
Date Collected: 3/5/2008 13:20
Date Received: 3/7/2008
Date Extracted: 3/10/2008
Matrix: Soil
% Solids: 91.45

Compound	Result mg/Kg	RL mg/Kg	MDL mg/Kg	Dilution Factor	Date Analyzed	Flag
2-Methylphenol	BQL	0.333	0.117	1	3/11/2008	
3- & 4-Methylphenol	BQL	0.333	0.113	1	3/11/2008	
Naphthalene	BQL	0.333	0.027	1	3/11/2008	
2-Nitroaniline	BQL	0.333	0.052	1	3/11/2008	
3-Nitroaniline	BQL	1.67	0.343	1	3/11/2008	
4-Nitroaniline	BQL	1.67	0.103	1	3/11/2008	
Nitrobenzene	BQL	0.333	0.045	1	3/11/2008	
2-Nitrophenol	BQL	0.333	0.103	1	3/11/2008	
4-Nitrophenol	BQL	1.67	0.092	1	3/11/2008	
N-Nitrosodi-n-propylamine	BQL	0.333	0.042	1	3/11/2008	
Pentachlorophenol	BQL	1.67	0.087	1	3/11/2008	
Phenanthrene	BQL	0.333	0.038	1	3/11/2008	
Phenol	BQL	0.333	0.091	1	3/11/2008	
Pyrene	0.380	0.333	0.064	1	3/11/2008	
1,2,4-Trichlorobenzene	BQL	0.333	0.042	1	3/11/2008	
2,4,5-Trichlorophenol	BQL	0.333	0.129	1	3/11/2008	
2,4,6-Trichlorophenol	BQL	0.333	0.119	1	3/11/2008	
		Spike Added	Spike Result	Percent Recovered		
2-Fluorobiphenyl		10	9.7	97		
2-Fluorophenol		10	9.6	96		
Nitrobenzene-d5		10	9.7	97		
Phenol-d6		10	9.4	94		
2,4,6-Tribromophenol		10	8.2	82		
4-Terphenyl-d14		10	10.5	105		

Comments:

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

Flags:

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

Reviewed By: alc



Results of Library Search for Semivolatile Compounds
by GCMS

47 S.T.
Client Sample ID: USTA~~42~~-SS08 (2-4')
Client Project ID: USTA-47
Lab Sample ID: G128-2145-1H
Lab Project ID: G128-2145
Sample Wt/Vol: 32.53 g
Dilution: 1

Analyzed By: DES
Date Collected: 3/5/2008 13:00
Date Received: 3/7/2008
Date Extracted: 3/10/2008
Date Analyzed: 3/11/2008
Matrix: Soil
% Solids: 91.8

No.	Compound	Retention Time	CAS#	Match Probability	Result (ug/KG)
1	Pentadecane, 2,6,10,14-tetramethyl-	7.89	001921-70-6	99	8190
2	Hexadecane, 2,6,10,14-tetramethyl-	8.39	000638-36-8	91	5440
3	Alkane, Unknown	7.61			2850
4	Alkane, Unknown	6.62			2710
5	Alkane, Unknown	5.52			2480
6	Octadecane	8.76	000593-45-3	91	1450
7	Unknown	6.57			1030
8	Undecane, 3,6-dimethyl-	5.15	017301-28-9	95	997
9					
10					

Comment:

Tentatively Identified Compound (TIC) refers to substances which are not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist.

Quantitation is accomplished by relative peak area of the compound compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is equal to or greater than 10% of that of the nearest internal standard. Quantitation provided is an estimate.

Reviewed by: alc



Results of Library Search for Semivolatile Compounds

by GCMS

47 S.T.
Client Sample ID: USTA-2-SS09 (2-4')
Client Project ID: USTA-47
Lab Sample ID: G128-2145-2H
Lab Project ID: G128-2145
Sample Wt/Vol: 33.17 g
Dilution: 1

Analyzed By: DES
Date Collected: 3/5/2008 12:30
Date Received: 3/7/2008
Date Extracted: 3/10/2008
Date Analyzed: 3/11/2008
Matrix: Soil
% Solids: 93.1

No.	Compound	Retention Time	CAS#	Match Probability	Result (ug/KG)
1	Pentadecane, 2,6,10,14-tetramethyl-	7.91	001921-70-6	98	12500
2	Hexacosane	8.40	000630-01-3	90	9560
3	Alkane, Unknown	7.62			5490
4	Alkane, Unknown	6.64			4860
5	Alkane, Unknown	5.52			3430
6	4,4'-Dimethylbiphenyl	8.09	000613-33-2	93	2440
7	Unknown	8.13			2260
8	Tridecane, 7-propyl-	8.77	055045-09-5	93	2240
9					
10					

Comment:

Tentatively Identified Compound (TIC) refers to substances which are not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist.

Quantitation is accomplished by relative peak area of the compound compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is equal to or greater than 10% of that of the nearest internal standard. Quantitation provided is an estimate.

Reviewed by: AK

Results of Library Search for Semivolatile Compounds by GCMS

Client Sample ID: USTA⁴⁷12-SS04A (1-2') ^{S.T.}
 Client Project ID: USTA-47
 Lab Sample ID: G128-2145-3B
 Lab Project ID: G128-2145
 Sample Wt/Vol: 32.79 g
 Dilution: 1

Analyzed By: DES
 Date Collected: 3/5/2008 13:20
 Date Received: 3/7/2008
 Date Extracted: 3/10/2008
 Date Analyzed: 3/11/2008
 Matrix: Soil
 % Solids: 91.5

No.	Compound	Retention Time	CAS#	Match Probability	Result (ug/KG)
1	Alkane, Unknown	7.63			6260
2	Dodecane	6.64	000112-40-3	90	5650
3	Alkane, Unknown	5.52			2770
4	Unknown	7.19			2390
5	Unknown	6.58			2100
6	Unknown	7.32			1770
7	Pentadecane, 2,6,10,14-tetramethyl-	7.91	001921-70-6	98	1620
8	Aromatic acid, Unknown	7.13			1530
9					
10					

Comment:

Tentatively Identified Compound (TIC) refers to substances which are not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist.

Quantitation is accomplished by relative peak area of the compound compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is equal to or greater than 10% of that of the nearest internal standard. Quantitation provided is an estimate.

Reviewed by: all



VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Richard Catlin & Associates

Project Name: USTA-47

Sample Information	
Sample Identification	USTA-47 S.T. 47 SS08 (2-4')
Sample Matrix	Soil
Collection Option (for Soil)*	2
Date Collected	03/05/08
Date Received	03/07/08
Date Extracted	03/10/08
Date Analyzed	03/13/08 22:37 - 03/13/08 22:37
Dry Weight	91.8
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**	15.6	10.0		
C ₉ -C ₁₀ Aromatics**	18.7	10.0		
	Percent Recovery	Flags	Limits Lower Upper	
Surrogate % Recovery - PID	90.6		70	130
Surrogate % Recovery - FID	101		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: g128-2145-1e	Lab Info: g128-2145-1e
FID Info: VP031308/033F0101.D	PID Info: VP031308/033R0101.D

Reviewed By: RLC



VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Richard Catlin & Associates

Project Name: USTA-47

Sample Information	
Sample Identification	47 S.T. USTA12-SS09 (2-4')
Sample Matrix	Soil
Collection Option (for Soil)*	2
Date Collected	03/05/08
Date Received	03/07/08
Date Extracted	03/10/08
Date Analyzed	03/13/08 23:04 - 03/13/08 23:04
Dry Weight	93.1
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 Upper	
Surrogate % Recovery - PID	88.7		70	130
Surrogate % Recovery - FID	96.9		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: g128-2145-2e	Lab Info: g128-2145-2e
FID Info: VP031308/034F0101.D	PID Info: VP031308/034R0101.D

Reviewed By:



Attachment 2

VPH Laboratory Reporting Form

Calibration and QA/QC Information

FID Initial Calibration Date: 03/01/08 PID Initial Calibration Date: 03/01/08

Calibration Ranges and Limits

Range	MDL		ML		RL	
	(µg/L)	(mg/Kg)	(µg/L)	(mg/Kg)	(µg/L)	(mg/Kg)
C ₅ -C ₈ Aliphatics	33.1	0.265	105	0.842	100	10
C ₉ -C ₁₂ Aliphatics	30.9	0.247	98.3	0.786	100	10
C ₉ -C ₁₀ Aromatics	27.7	0.222	88.1	0.705	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	5.43	Calibration Factor
	50	4		
	100	8		
	200	16		
	500	40		
C ₉ -C ₁₂ Aliphatics	10	0.8	1.00	Linear Regression
	50	4		
	100	8		
	200	16		
	500	40		
C ₉ -C ₁₀ Aromatics	10	0.8	15.40	Calibration Factor
	50	4		
	100	8		
	200	16		
	500	40		

Calibration Check Date: 03/13/08 Filename: VP031308/002F0101.d

Calibration Check

Range	Levels (mg/Kg)	(µg/L)	%Difference if CF %Drift if LR	Limits
C ₅ -C ₈ Aliphatics	200	1.6	3.0	±25%
C ₉ -C ₁₂ Aliphatics	200	1.6	21.2	±25%
C ₉ -C ₁₀ Aromatics	200	1.6	8.1	±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



EPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Richard Catlin & Associates

Project Name: USTA-47

Sample Information	
Sample Identification	47 S.T. USTA12-SS08 (2-4')
Sample Matrix	SOIL
Date Collected	03/05/08
Date Received	03/07/08
Date Extracted	03/10/08
Date Analyzed	03/16/08 14:06 - 03/14/08 11:04
Dry Weight	91.8
Dilution Factor	5 - 1
Initial weight (g)	12.56
Final Volume (mL)	10.0

Analytical Results			
Analytes**	Result mg/Kg	Report Limit mg/Kg	Flags
C9-C18 Aliphatics	384	10.0	
C19-C36 Aliphatics	310	10.0	
C11-C22 Aromatics	199	10.0	

Surrogates	Percent Recovery	Flags	Limits	
			Lower	Upper
Aliphatic (chloro-octadecane)	91.0		40	140
Aromatic (ortho-terphenyl)	87.4		40	140
Fractionation 1 (2-bromonaphthalene)	91.7		40	140
Fractionation 2 (2-fluorobiphenyl)	91.0		40	140

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

Lab Info: G128-2145-1K	Lab Info: G128-2145-1K
Aliphatic: EP031608/005F0301.D	Aromatic: EP031408/004F0201.D

Reviewed By: alc

**EPH (Aliphatics/Aromatics) Laboratory Reporting Form**Client Name: Richard Catlin & AssociatesProject Name: USTA-47

Sample Information	
Sample Identification	47 S.T. USTA-SS09 (2-4')
Sample Matrix	SOIL
Date Collected	03/05/08
Date Received	03/07/08
Date Extracted	03/10/08
Date Analyzed	03/16/08 14:35 - 03/14/08 12:01
Dry Weight	93.1
Dilution Factor	10 - 1
Initial weight (g)	12.63
Final Volume (mL)	10.0

Analytical Results			
Analytes**	Result mg/Kg	Report Limit mg/Kg	Flags
C9-C18 Aliphatics	1250	10.0	
C19-C36 Aliphatics	696	10.0	
C11-C22 Aromatics	693	10.0	

Surrogates	Percent Recovery	Flags	Limits	
			Lower	Upper
Aliphatic (chloro-octadecane)	87.0		40	140
Aromatic (ortho-terphenyl)	110		40	140
Fractionation 1 (2-bromonaphthalene)	91.0		40	140
Fractionation 2 (2-fluorobiphenyl)	88.3		40	140

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

Lab Info: G128-2145-2I	Lab Info: G128-2145-2I
Aliphatic: EP031608/006F0401.D	Aromatic: EP031408/006F0401.D

Reviewed By: *alc*

Attachment 3

EPH Laboratory Reporting Form

Calibration and QA/QC Information

Initial Calibration Date: 02/13/08

Calibration Ranges and Limits

Range	MDL		ML		RL	
	(10/17/06) (µg/L)	(10/17/06) (mg/Kg)	(µg/L)	(mg/Kg)	(µg/L)	(mg/Kg)
C9-C18 Aliphatics	28.1	0.847	89	2.69	100	10
C19-C36 Aliphatics	36.5	1.17	116	3.72	100	10
C11-C22 Aromatics	27.6	9.47	87.8	30.1	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	400	12.5	10.42	Calibration Factor
	200	6.25		
	100	3.13		
	50	1.56		
	10	0.313		
C ₁₉ -C ₃₆ Aliphatics	400	12.5	11.28	Calibration Factor
	200	6.25		
	100	3.13		
	50	1.56		
	10	0.313		
C ₁₁ -C ₂₂ Aromatics	400	12.5	6.44	Calibration Factor
	200	6.25		
	100	3.13		
	50	1.56		
	10	0.313		

Calibration Check Date: 03/14/08 Filenames: ep031408/001f0101.d
03/14/08 ep031408/002f0201.d

Calibration Check

Range	Levels (µg/L)	Levels (mg/Kg)	%Difference if CF %Drift if LR	Limits
C9-C18 Aliphatics	200	6.25	8.4	±25%
C19-C36 Aliphatics	200	6.25	9.5	±25%
C11-C22 Aromatics	200	6.25	5.9	±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: 02/13/08

Calibration Ranges and Limits

Range	MDL		ML		RL	
	(10/17/06) (µg/L)	(10/17/06) (mg/Kg)	(µg/L)	(mg/Kg)	(µg/L)	(mg/Kg)
C9-C18 Aliphatics	28.1	0.847	89	2.69	100	10
C19-C36 Aliphatics	36.5	1.17	116	3.72	100	10
C11-C22 Aromatics	27.6	9.47	87.8	30.1	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	400	12.5	10.42	Calibration Factor
	200	6.25		
	100	3.13		
	50	1.56		
	10	0.313		
C ₁₉ -C ₃₆ Aliphatics	400	12.5	11.28	Calibration Factor
	200	6.25		
	100	3.13		
	50	1.56		
	10	0.313		
C ₁₁ -C ₂₂ Aromatics	400	12.5	6.44	Calibration Factor
	200	6.25		
	100	3.13		
	50	1.56		
	10	0.313		

Calibration Check Date: 03/14/08
03/14/08

Filenames: ep031408/025f2301.d
ep031408/026f2401.d

Calibration Check

Range	Levels (µg/L)	Levels (mg/Kg)	%Difference if CF %Drift if LR	Limits
C9-C18 Aliphatics	200	6.25	11.6	≤±25%
C19-C36 Aliphatics	200	6.25	13.3	≤±25%
C11-C22 Aromatics	200	6.25	8.7	≤±25%

MDL = Method Detection Limit
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RL = Reportable Limit

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%RSD = Percent Relative Standard Deviation
CCC = Correlation Coefficient of Curve



Attachment 3

EPH Laboratory Reporting Form

Calibration and QA/QC Information

Initial Calibration Date: 02/13/08

Calibration Ranges and Limits

Range	MDL		ML		RL	
	(10/17/06) (µg/L)	(10/17/06) (mg/Kg)	(µg/L)	(mg/Kg)	(µg/L)	(mg/Kg)
C9-C18 Aliphatics	28.1	0.847	89	2.69	100	10
C19-C36 Aliphatics	36.5	1.17	116	3.72	100	10
C11-C22 Aromatics	27.6	9.47	87.8	30.1	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	400	12.5	10.42	Calibration Factor
	200	6.25		
	100	3.13		
	50	1.56		
	10	0.313		
C ₁₉ -C ₃₆ Aliphatics	400	12.5	11.28	Calibration Factor
	200	6.25		
	100	3.13		
	50	1.56		
	10	0.313		
C ₁₁ -C ₂₂ Aromatics	400	12.5	6.44	Calibration Factor
	200	6.25		
	100	3.13		
	50	1.56		
	10	0.313		

Calibration Check Date: 03/16/08 Filenames: ep031608/001f0101.d
03/16/08 ep031608/002f0201.d

Calibration Check

Range	Levels (µg/L)	Levels (mg/Kg)	%Difference if CF %Drift if LR	Limits
C9-C18 Aliphatics	200	6.25	0.9	±25%
C19-C36 Aliphatics	200	6.25	1.4	±25%
C11-C22 Aromatics	200	6.25	5.8	±25%

MDL = Method Detection Limit
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EPH Laboratory Reporting Form

Calibration and QA/QC Information

Initial Calibration Date: 02/13/08

Calibration Ranges and Limits

Range	MDL		ML		RL	
	(10/17/06) (µg/L)	(10/17/06) (mg/Kg)	(µg/L)	(mg/Kg)	(µg/L)	(mg/Kg)
C9-C18 Aliphatics	28.1	0.847	89	2.69	100	10
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C11-C22 Aromatics	27.6	9.47	87.8	30.1	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	400	12.5	10.42	Calibration Factor
	200	6.25		
	100	3.13		
	50	1.56		
	10	0.313		
C ₁₉ -C ₃₆ Aliphatics	400	12.5	11.28	Calibration Factor
	200	6.25		
	100	3.13		
	50	1.56		
	10	0.313		
C ₁₁ -C ₂₂ Aromatics	400	12.5	6.44	Calibration Factor
	200	6.25		
	100	3.13		
	50	1.56		
	10	0.313		

Calibration Check Date: 03/16/08
03/17/08

Filenames: ep031608/032f3001.d
ep031608/033f3101.d

Calibration Check

Range	Levels (µg/L)	Levels (mg/Kg)	%Difference if CF %Drift if LR	Limits
C9-C18 Aliphatics	200	6.25	1.7	≤±25%
C19-C36 Aliphatics	200	6.25	2.7	≤±25%
C11-C22 Aromatics	200	6.25	8.9	≤±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

