

SSFL Phase 3 – Field Data Sample Sheet (Sample Descriptions)

Soil Classification (circle one)

MAJOR DIVISION			GROUP SYMBOL	LETTER SYMBOL	GROUP NAME	
COARSE GRAINED SOILS CONTAINS MORE THAN 50% FINES	GRAVEL AND GRAVELLY SOILS MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	GRAVEL WITH * 5% FINES		GW	Well-graded GRAVEL	
				GP	Poorly graded GRAVEL	
		GRAVEL WITH BETWEEN 5% AND 15% FINES		GW-GM	Well-graded GRAVEL with silt	
				GW-GC	Well-graded GRAVEL with clay	
				GP-GM	Poorly graded GRAVEL with silt	
				GP-GC	Poorly graded GRAVEL with clay	
	SAND AND SANDY SOILS MORE THAN 50% OF COARSE FRACTION PASSING ON NO. 4 SIEVE	GRAVEL WITH ≥ 10% FINES		GM	Silty GRAVEL	
				GC	Clayey GRAVEL	
		SAND WITH * 5% FINES		SW	Well-graded SAND	
				SP	Poorly graded SAND	
		SAND WITH BETWEEN 5% AND 15% FINES		SW-SM	Well-graded SAND with silt	
				SW-SC	Well-graded SAND with clay	
				SP-SM	Poorly graded SAND with silt	
				SP-SC	Poorly graded SAND with clay	
SAND WITH ≥ 15% FINES		SM	Silty SAND			
		SC	Clayey SAND			
	FINE GRAINED SOILS CONTAINS MORE THAN 50% FINES	SILT AND CLAY	LIQUID LIMIT LESS THAN 50		ML	Inorganic SILT with low plasticity
					CL	Lean inorganic CLAY with low plasticity
					OL	Organic SILT with low plasticity
			LIQUID LIMIT GREATER THAN 50		MH	Elastic inorganic SILT with moderate to high plasticity
				CH	Fat inorganic CLAY with moderate to high plasticity	
				CH	Organic SILT or CLAY with moderate to high plasticity	
HIGHLY ORGANIC SOILS					PT	PEAT soils with high organic contents

Fill Material

1. Is Fill Material Present Yes ☒ No ☐
2. Percentage Fill (%) N/A
3. Fill Description (circle all that apply)
- Asphalt Metal Plastic
- Concrete Wood Glass
- Igneous/Metamorphic Gravel ☒ N/A
- Other _____

Is Staining Present Yes ☒ No ☐

Color BRN YEL (10426/6) MOTTLED W/

Odor D. YEL BENT. (10424/4) & V. PLE BRL (10427/4)

1. Odor Strength (circle one)

☒ None Slight Strong

2. Odor Description (circle one)

Organic Petroleum Chemical

☒ N/A Other _____

Moisture Condition (circle one)

☒ Dry Moist Wet

PG Signature [Signature]

PG Registration # 7735

Additional Comments NO RECOVERY IN SLIDE HAMMER ∴ COLLECTED
SAMPLE IN JARS, EXCESS COLLECTED FROM AUGER.

Location ID: DC-863		Subarea: 5A	Date Started: 6-19-13	Date Completed: 6-19-13
Client: DOE		Project Name/ID: SSFL-05205-00076-1203.002.223.02334-SSPHS		
Company Name: CDM SMITH		Drill Contractor/Driller: Strongarm		
GPS collected? Yes or No		Drill Method: Handauger / Slidehammer		
Radiological Background: Y=14 X=73		Borehole diameter: 2.75"		
PID Background: 0.0		Depth to GW: NA		
Radiological Equipment Used:		PG Review & No: Null off from #7735		
<input checked="" type="checkbox"/> MicroR <input checked="" type="checkbox"/> Alpha/Beta <input checked="" type="checkbox"/> Pancake		Sampling Method: Slidehammer		
		Geologist: David Rojas		

Depth (feet)	bgs	Recovery (feet)	PID (ppm)	Radiological (uR/cpm)	Sample Name	Sample Time	USCS	Description of Materials
		0.5/0.5	0.0	14/102 14/64	SL-863 SA5A-SB 0.0-0.5	0900	SP	SAND, knw (7.5YR 8/4), Fgnw, pg, sr to sa, quartz, loose, dry, some org (roots, birdcherry, leaves), <5% silt, ~10% asphalt & granite gravel
1			0.0	14/84			SM	SILTY SAND, (7.5YR 4/4) Fgnw w/some med & coarse qnw, pg, sr to sa, quartz, ~20% silt, Few amt org (roots), to gravel - F size, quartz
2			0.0	14/96				
3			0.0	14/84			SM	SILTY SAND, ^{knw} (7.5YR 4/4) Fgnw w/med qnw, pg, sr to sa, quartz, dry, sli to med compacted, sli friable, dry, ~20%
4			0.0	14/72	SL-863 SA5A-SB 4.0-5.0	0930	SM	^{strong knw} SILTY SAND, (7.5YR 4/6), fgnw w/to med qnw, pg, sr to sa, quartz, sli med compacted, med friable, dry to sli moist, to amt coarse grains w/depth, and less silt w/depth
Refusals @ 4.8 & 4.8								

CDM Smith

BORING LOG AND SAMPLING RECORD

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ABBREVIATIONS:

amt: amount	gr: grained	pg: poorly graded	t: trace	nr: no recovery
c: coarse	lt: light	rnd: rounded	v: very	
dk: dark	m: medium	sa: subangular	wg: well graded	
f: fine	mod: moderate	sr: subrounded	φ: diameter	bgs: below ground surface

SSFL Phase 3 – Field Sample Data Sheet

CDM Smith

FSDS Checked By V. Gfz

Sample ID SL-863-SA5A-SB-0.0-0.5 Date/Time 6-19-13/0900

Matrix (circle one)
☒ Soil ☐ Sediment ☐ Water

Start Depth 0.0
 End Depth 0.5

Depth Units (circle one)
 Inches ☐ Feet ☒

Check if Composite ☐

Collection Method (circle one)
 DPT ☐ ☒ Slide Hammer ☐ Hand Auger/Slide Hammer ☐ Trenching ☐ Sediment

QC Type (circle one)
☒ N ☐ FD ☐ FB ☐ RB

Parent Sample ID NA

Field Geologist David Rojas

Sampler Vidal Cortes

Analysis

Parameters	Method	Analyze?
Metals	EPA 6010	<input checked="" type="checkbox"/>
	EPA 6020	<input checked="" type="checkbox"/>
	EPA 7471 (Soil)	<input checked="" type="checkbox"/>
	EPA 7470 (Water)	
Fluoride	EPA 300.0/9056	
SVOCs	EPA 8270	
TIC	EPA 8270	
PAHs	EPA 8270 SIM	<input checked="" type="checkbox"/>
1,4 Dioxane	EPA 8270 SIM	
Dioxins	EPA 1613	<input checked="" type="checkbox"/>
PCBs/PCTs	EPA 8082	
Perchlorate	EPA 314.0/331	
Perchlorate Confirmation	EPA 6850/6860	
pH	EPA 9045 (Soil) EPA 9040 (Water)	<input checked="" type="checkbox"/>
Hexavalent Chromium	EPA 7196/7199	
Herbicides	EPA 8151	
Pesticides	EPA 8081	

Parameters	Method	Analyze?
Encores	VOCs	EPA 8260
	1,4 Dioxane	EPA 8260 SIM
	TPH-GRO	EPA 8015
	TPH-EFH	EPA 8015 <input checked="" type="checkbox"/>
Sediment	Glycols	EPA 8015
	Alcohols	EPA 8015
	Terphenyls	EPA 8015
	Nitrates	EPA 300.0/9056
	Energetics	EPA 8330
	Cyanide	EPA 9012
	Formaldehyde	EPA 8315
	NDMA	EPA 1625
	Organotin	NOAA Status and Trends, Krone et al.
	Methyl Mercury	EPA 1630

2 slidehammer SS sleeves & 1 4-oz jar

SSFL Phase 3 – Field Data Sample Sheet (Sample Descriptions)

Soil Classification (circle one)

MAJOR DIVISION			GROUP SYMBOL	LETTER SYMBOL	GROUP NAME	
COARSE GRAINED SOILS CONTAINS MORE THAN 50% FINES	GRAVEL AND GRAVELLY SOILS MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	GRAVEL WITH $\leq 5\%$ FINES		GW	Well-graded GRAVEL	
		GRAVEL WITH BETWEEN 5% AND 15% FINES		GP	Poorly graded GRAVEL	
				GW-GM	Well-graded GRAVEL with silt	
				GW-GC	Well-graded GRAVEL with clay	
				GP-GM	Poorly graded GRAVEL with silt	
			GP-GC	Poorly graded GRAVEL with clay		
	SAND AND SANDY SOILS MORE THAN 50% OF COARSE FRACTION PASSING ON NO. 4 SIEVE	GRAVEL WITH $\geq 10\%$ FINES		GM	Silty GRAVEL	
		SAND WITH $\leq 5\%$ FINES		GC	Clayey GRAVEL	
				SW	Well-graded SAND	
				SP	Poorly graded SAND	
			SAND WITH BETWEEN 5% AND 15% FINES		SW-SM	Well-graded SAND with silt
				SW-SC	Well-graded SAND with clay	
	SP-SM	Poorly graded SAND with silt				
	SP-SC	Poorly graded SAND with clay				
SAND WITH $\geq 15\%$ FINES			SM	Silty SAND		
			SC	Clayey SAND		
	FINE GRAINED SOILS CONTAINS MORE THAN 50% FINES	SILT AND CLAY	LIQUID LIMIT LESS THAN 50		ML	Inorganic SILT with low plasticity
				CL	Lean inorganic CLAY with low plasticity	
					OL	Organic SILT with low plasticity
		LIQUID LIMIT GREATER THAN 50		MH	Elastic inorganic SILT with moderate to high plasticity	
			CH	Fat inorganic CLAY with moderate to high plasticity		
			OH	Organic SILT or CLAY with moderate to high plasticity		
HIGHLY ORGANIC SOILS					PT	PEAT soils with high organic contents

Fill Material

1. Is Fill Material Present ☒ Yes ☐ No

2. Percentage Fill (%) 10

3. Fill Description (circle all that apply)

☒ Asphalt ☐ Metal ☐ Plastic

☐ Concrete ☐ Wood ☐ Glass

☒ Igneous/Metamorphic Gravel ☐ N/A

Other _____

Is Staining Present Yes ☒ No ☐

Color (brown 7.5YR 5/4)

Odor

1. Odor Strength (circle one)

☒ None ☐ Slight ☐ Strong

2. Odor Description (circle one)

☐ Organic ☐ Petroleum ☐ Chemical

☒ N/A ☐ Other _____

Moisture Condition (circle one)

☒ Dry ☐ Moist ☐ Wet

PG Signature [Signature]

PG Registration # 7735

Additional Comments NA

SSFL Phase 3 – Field Sample Data Sheet

CDM Smith

FSDS Checked By V. Cortes

Sample ID SL-863-SA5A-SB-4.0-5.0

Date/Time 6-19-13 / 0920

Matrix (circle one)

☒ Soil ☐ Sediment ☐ Water

Start Depth 4.0

End Depth 5.0

Depth Units (circle one)

Inches ☐ Feet ☒

Check if Composite ☐

Collection Method (circle one)

DPT ☐ Slide Hammer ☒ Hand Auger ☐ Slide Hammer ☐ Trenching ☐ Sediment

QC Type (circle one)

☒ N ☐ FD ☐ FB ☐ RB

Parent Sample ID NA

Field Geologist David Rojas

Sampler Vidal Cortes

Analysis

Parameters	Method	Analyze?
Metals	EPA 6010	<input checked="" type="checkbox"/>
	EPA 6020	<input checked="" type="checkbox"/>
	EPA 7471 (Soil)	<input checked="" type="checkbox"/>
	EPA 7470 (Water)	<input type="checkbox"/>
Fluoride	EPA 300.0/9056	<input type="checkbox"/>
SVOCs	EPA 8270	<input type="checkbox"/>
TIC	EPA 8270	<input type="checkbox"/>
PAHs	EPA 8270 SIM	<input checked="" type="checkbox"/>
1,4 Dioxane	EPA 8270 SIM	<input type="checkbox"/>
Dioxins	EPA 1613	<input checked="" type="checkbox"/>
PCBs/PCTs	EPA 8082	<input type="checkbox"/>
Perchlorate	EPA 314.0/331	<input type="checkbox"/>
Perchlorate Confirmation	EPA 6850/6860	<input type="checkbox"/>
pH	EPA 9045 (Soil)	<input checked="" type="checkbox"/>
	EPA 9040 (Water)	<input type="checkbox"/>
Hexavalent Chromium	EPA 7196/7199	<input type="checkbox"/>
Herbicides	EPA 8151	<input type="checkbox"/>
Pesticides	EPA 8081	<input type="checkbox"/>

Parameters	Method	Analyze?
Encores	VOCs	EPA 8260
	1,4 Dioxane	EPA 8260 SIM
	TPH-GRO	EPA 8015
	TPH-EFH	EPA 8015
	Glycols	EPA 8015
	Alcohols	EPA 8015
	Terphenyls	EPA 8015
	Nitrates	EPA 300.0/9056
	Energetics	EPA 8330
	Cyanide	EPA 9012
Sediment	Formaldehyde	EPA 8315
	NDMA	EPA 1625
	Organotin	NOAA Status and Trends, Krone et al.
	Methyl Mercury	EPA 1630

2 16-oz jars & 2 Encores

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Soil Classification (circle one)

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COARSE GRAINED SOILS CONTAINS MORE THAN 50% FINES	GRAVEL AND GRAVELLY SOILS MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	GRAVEL WITH * 5% FINES		GW	Well-graded GRAVEL
				GP	Poorly graded GRAVEL
		GRAVEL WITH BETWEEN 5% AND 15% FINES		GW-GM	Well-graded GRAVEL with silt
				GW-GC	Well-graded GRAVEL with clay
				GP-GM	Poorly graded GRAVEL with silt
				GP-GC	Poorly graded GRAVEL with clay
	SAND AND SANDY SOILS MORE THAN 50% OF COARSE FRACTION PASSING ON NO. 4 SIEVE	GRAVEL WITH ≥ 10% FINES		GM	Silty GRAVEL
				GC	Clayey GRAVEL
		SAND WITH * 5% FINES		SW	Well-graded SAND
					SP
		SAND WITH BETWEEN 5% AND 15% FINES		SW-SM	Well-graded SAND with silt
				SW-SC	Well-graded SAND with clay
				SP-SM	Poorly graded SAND with silt
				SP-SC	Poorly graded SAND with clay
		SAND WITH ≥ 15% FINES		SM	Silty SAND
				SC	Clayey SAND
FINE GRAINED SOILS CONTAINS MORE THAN 50% FINES	SILT AND CLAY	LIQUID LIMIT LESS THAN 50		ML	Inorganic SILT with low plasticity
				CL	Lean inorganic CLAY with low plasticity
				OL	Organic SILT with low plasticity
		LIQUID LIMIT GREATER THAN 50		MH	Elastic inorganic SILT with moderate to high plasticity
				CH	Fat inorganic CLAY with moderate to high plasticity
				CH	Organic SILT or CLAY with moderate to high plasticity
			HIGHLY ORGANIC SOILS		

Fill Material

1. Is Fill Material Present Yes ☒ No ☐
2. Percentage Fill (%) None
3. Fill Description (circle all that apply)
- | | | |
|----------------------------|--------------------------------------|---------|
| Asphalt | Metal | Plastic |
| Concrete | Wood | Glass |
| Igneous/Metamorphic Gravel | <input checked="" type="radio"/> N/A | |
| Other _____ | | |

Is Staining Present Yes ☒ No ☐
 Color Strong, brn (7.5YR 4/6)

Odor

1. Odor Strength (circle one)
☒ None ☐ Slight ☐ Strong

2. Odor Description (circle one)
 Organic ☐ Petroleum ☐ Chemical ☐
☒ N/A Other _____

Moisture Condition (circle one)
☒ Dry ☐ Moist ☐ Wet

PG Signature Mick Koffman

PG Registration # 7735

Additional Comments Unable to collect sample in slide hammer, collected sample using hand auger

Location ID: DG-864		Subarea: 5A		Date Started: 6-18-13		Date Completed: 6-18-13	
Client: DOE				Project Name/#: SSFL-65265-03976-1208-002-223-02231-SSPHB-MB		Total Depth: 1st HA= 3.8 2nd HA= 4.8	
Company Name: CDM SMITH				Drill Contractor/Driller: Strongarm			
GPS collected: <input checked="" type="checkbox"/> Yes or No				Drill Method: Slidehammer/Auger		Depth Drilled into Bedrock: NA	
Radiological Background: Y=15 dB=68				Borehole diameter: 2.175 inches			
PID Background: 0.0				Depth to GW: NA		Sampling Method:	
Radiological Equipment Used:				PG Review & No. 7735		Geologist: David Rojas	
<input checked="" type="checkbox"/> MicroR <input checked="" type="checkbox"/> Alpha/Beta <input checked="" type="checkbox"/> Pancake							

Depth (feet)	bgs	Recovery (feet)	PID (ppm)	Radiological (uR/cpm)	Sample Name	Sample Time	USCS	Description of Materials
0.0-0.5	0.5/0.5	0.0	15/90	SL-864	1355	SP	SM	SAND w/ SILT, bwn (7.5YR 4/3) mottled w/ (7.5YR 5/3) F-gm, gmn, pg, sr to sa, quartz, dry, loose to sli compacted, friable, ~10% SILT, to fee ant org (roots)
		0.0	14/60	SAGA-SB				0.0-0.5
1		0.0	14/60					SILTY SAND, bwn (7.5YR 4/2) mottled w/ dk bwn (7.5YR 3/2) F-gm w/ few ant med gmn, pg, sr to sa, quartz med compacted, sli to med friable, ~20% silt, dry, to ant org (roots)
2		0.0	14/78					
3		0.0	14/72					SILTY SAND, AA. except strong bwn (7.5YR 4/6) mottled w/ reddish yel (7.5YR 6/6), to ant coarse grained.
4		0.0	14/84					SAND w/ SILT, strong bwn (7.5YR 4/6) mottled w/ dk bwn (7.5YR 3/4), F-gm w/ to ant med gmn, pg, sr to sa, quartz, dry to sli moist, med consolidated to consolidated, sli to med friable.
5		0.0	14/102		SL-864 SAGA-SB 4.0-5.0	1410	SP	SAND, brn yel (10YR 6/6) mottled w/ yel bwn (10YR 5/6) and dk yel bwn (10YR 4/4), F-m gmn, pg, sr to sa, quartz, med consolidated, sli to med friable, <5% silt moist, to ant silty sand blebs, to ant sandstone gravel. Fine sized, hard.
Referrals @ 3.8 & 4.8								

SSFL Phase 3 – Field Sample Data Sheet

CDM Smith

FSDS Checked By V. Cortes

Sample ID SL-864-SA5A-SB-0.0-0.5 Date/Time 6-18-13 / 1355

Matrix (circle one) <input checked="" type="radio"/> Soil <input type="radio"/> Sediment <input type="radio"/> Water	Start Depth <u>0.0</u> End Depth <u>0.5</u>	Depth Units (circle one) Inches <input checked="" type="radio"/> Feet
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Check if Composite ☐ Collection Method (circle one) ☒ Slide Hammer ☐ Hand Auger/Slide Hammer ☐ Trenching ☐ Sediment

QC Type (circle one) ☒ N ☐ FD ☐ FB ☐ RB Parent Sample ID NA

Field Geologist DAVID ROJAS

Sampler VIDAL CORTES

Analysis

Parameters	Method	Analyze?
Metals	EPA 6010	<input checked="" type="checkbox"/>
	EPA 6020	<input checked="" type="checkbox"/>
	EPA 7471 (Soil)	<input checked="" type="checkbox"/>
	EPA 7470 (Water)	
Fluoride	EPA 300.0/9056	
SVOCs	EPA 8270	
TIC	EPA 8270	
PAHs	EPA 8270 SIM	<input checked="" type="checkbox"/>
1,4 Dioxane	EPA 8270 SIM	
Dioxins	EPA 1613	<input checked="" type="checkbox"/>
PCBs/PCTs	EPA 8082	
Perchlorate	EPA 314.0/331	
Perchlorate Confirmation	EPA 6850/6860	
pH	EPA 9045 (Soil)	<input checked="" type="checkbox"/>
	EPA 9040 (Water)	
Hexavalent Chromium	EPA 7196/7199	
Herbicides	EPA 8151	
Pesticides	EPA 8081	

Parameters	Method	Analyze?
Encores	VOCs	EPA 8260
	1,4 Dioxane	EPA 8260 SIM
	TPH-GRO	EPA 8015
	TPH-EFH	EPA 8015 <input checked="" type="checkbox"/>
Sediment	Glycols	EPA 8015
	Alcohols	EPA 8015
	Terphenyls	EPA 8015
	Nitrates	EPA 300.0/9056
	Energetics	EPA 8330
	Cyanide	EPA 9012
	Formaldehyde	EPA 8315
	NDMA	EPA 1625
	Organotin	NOAA Status and Trends, Krone et al.
	Methyl Mercury	EPA 1630

SSFL Phase 3 – Field Data Sample Sheet (Sample Descriptions)

Soil Classification (circle one)

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				GP	Poorly graded GRAVEL
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				GW-GC	Well-graded GRAVEL with clay
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				GP-GC	Poorly graded GRAVEL with clay
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				GC	Clayey GRAVEL
	SAND AND SANDY SOILS MORE THAN 50% OF COARSE FRACTION PASSING ON NO. 4 SIEVE	SAND WITH * 5% FINES		SW	Well-graded SAND
				SP	Poorly graded SAND
		SAND WITH BETWEEN 5% AND 15% FINES		SW-SM	Well-graded SAND with silt
				SW-SC	Well-graded SAND with clay
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		SAND WITH ≥ 15% FINES		SM	Silty SAND
				SC	Clayey SAND
FINE GRAINED SOILS CONTAINS MORE THAN 50% FINES	SILT AND CLAY	LIQUID LIMIT LESS THAN 50		ML	Inorganic SILT with low plasticity
				CL	Lean inorganic CLAY with low plasticity
				OL	Organic SILT with low plasticity
		LIQUID LIMIT GREATER THAN 50		MH	Elastic inorganic SILT with moderate to high plasticity
				CH	Fat inorganic CLAY with moderate to high plasticity
				OH	Organic SILT or CLAY with moderate to high plasticity
HIGHLY ORGANIC SOILS				PT	PEAT soils with high organic contents

Fill Material

- Is Fill Material Present ☒ Yes ☐ No
- Percentage Fill (%) Trace 1%
- Fill Description (circle all that apply)

<input checked="" type="radio"/> Asphalt	<input checked="" type="radio"/> Metal*	<input type="radio"/> Plastic
<input type="radio"/> Concrete	<input type="radio"/> Wood	<input type="radio"/> Glass
<input type="radio"/> Igneous/Metamorphic Gravel	<input type="radio"/> N/A	
Other <u>* Aluminum</u>		

Is Staining Present Yes ☐ No ☒

Color brown (7.5YR 4/3) mottled w/ (7.5YR 5/3)

Odor

1. Odor Strength (circle one)

☒ None ☐ Slight ☐ Strong

2. Odor Description (circle one)

☐ Organic ☐ Petroleum ☐ Chemical

☒ N/A ☐ Other _____

Moisture Condition (circle one)

☒ Dry ☐ Moist ☐ Wet

PG Signature [Signature]

PG Registration # 7735

Additional Comments NA

SSFL Phase 3 – Field Sample Data Sheet

CDM Smith

FSDS Checked By V. Cortes

Sample ID SL-864-SA5A-SB-4-5.0 Date/Time 6-18-13/1410

Matrix (circle one) Soil Sediment Water	Start Depth <u>4.0</u>	Depth Units (circle one) Inches <u>Feet</u>
	End Depth <u>5.0</u>	

Check if Composite ☐ Collection Method (circle one)
 DPT Slide Hammer Hand Auger Slide Hammer Trenching Sediment

QC Type (circle one)
N FD FB RB Parent Sample ID NA

Field Geologist David Rojas

Sampler Vidal Cortes

Analysis

Parameters	Method	Analyze?
Metals	EPA 6010	<input checked="" type="checkbox"/>
	EPA 6020	<input checked="" type="checkbox"/>
	EPA 7471 (Soil)	<input checked="" type="checkbox"/>
	EPA 7470 (Water)	
Fluoride	EPA 300.0/9056	
SVOCs	EPA 8270	
TIC	EPA 8270	
PAHs	EPA 8270 SIM	<input checked="" type="checkbox"/>
1,4 Dioxane	EPA 8270 SIM	
Dioxins	EPA 1613	<input checked="" type="checkbox"/>
PCBs/PCTs	EPA 8082	
Perchlorate	EPA 314.0/331	
Perchlorate Confirmation	EPA 6850/6860	
pH	EPA 9045 (Soil)	<input checked="" type="checkbox"/>
	EPA 9040 (Water)	
Hexavalent Chromium	EPA 7196/7199	
Herbicides	EPA 8151	
Pesticides	EPA 8081	

Parameters	Method	Analyze?
Encores	VOCs	EPA 8260
	1,4 Dioxane	EPA 8260 SIM
	TPH-GRO	EPA 8015
	TPH-EFH	EPA 8015
Sediment	Glycols	EPA 8015
	Alcohols	EPA 8015
	Terphenyls	EPA 8015
	Nitrates	EPA 300.0/9056
	Energetics	EPA 8330
	Cyanide	EPA 9012
	Formaldehyde	EPA 8315
	NDMA	EPA 1625
	Organotin	NOAA Status and Trends, Krone et al.
	Methyl Mercury	EPA 1630

2 16-oz jars & 2 Encores

SSFL Phase 3 – Field Data Sample Sheet (Sample Descriptions)

Soil Classification (circle one)

MAJOR DIVISION			GROUP SYMBOL	LETTER SYMBOL	GROUP NAME	
COARSE GRAINED SOILS CONTAINS MORE THAN 50% FINES	GRAVEL AND GRAVELLY SOILS MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	GRAVEL WITH $\geq 5\%$ FINES		GW	Well-graded GRAVEL	
				GP	Poorly graded GRAVEL	
		GRAVEL WITH BETWEEN 5% AND 15% FINES		GW-GM	Well-graded GRAVEL with silt	
				GW-GC	Well-graded GRAVEL with clay	
				GP-GM	Poorly graded GRAVEL with silt	
				GP-GC	Poorly graded GRAVEL with clay	
	SAND AND SANDY SOILS MORE THAN 50% OF COARSE FRACTION PASSING ON NO. 4 SIEVE	GRAVEL WITH $\geq 10\%$ FINES		GM	Silty GRAVEL	
				GC	Clayey GRAVEL	
		SAND WITH $\geq 5\%$ FINES		SW	Well-graded SAND	
				SP	Poorly graded SAND	
			SAND WITH BETWEEN 5% AND 15% FINES		SW-SM	Well-graded SAND with silt
					SW-SC	Well-graded SAND with clay
FINE GRAINED SOILS CONTAINS MORE THAN 50% FINES	SILT AND CLAY	LIQUID LIMIT LESS THAN 50		SP-SM	Poorly graded SAND with silt	
				SP-SC	Poorly graded SAND with clay	
		LIQUID LIMIT GREATER THAN 50		SM	Silty SAND	
				SC	Clayey SAND	
			LIQUID LIMIT LESS THAN 50		ML	Inorganic SILT with low plasticity
					CL	Lean inorganic CLAY with low plasticity
		LIQUID LIMIT GREATER THAN 50		OL	Organic SILT with low plasticity	
				MH	Elastic inorganic SILT with moderate to high plasticity	
				CH	Fat inorganic CLAY with moderate to high plasticity	
				CH	Organic SILT or CLAY with moderate to high plasticity	
HIGHLY ORGANIC SOILS				PT	PEAT soils with high organic contents	

Fill Material

1. Is Fill Material Present Yes ☒ No ☐
2. Percentage Fill (%) NONE
3. Fill Description (circle all that apply)
- | | | |
|----------------------------|--------------------------------------|---------|
| Asphalt | Metal | Plastic |
| Concrete | Wood | Glass |
| Igneous/Metamorphic Gravel | <input checked="" type="radio"/> N/A | |
| Other _____ | | |

Is Staining Present Yes ☒ No ☐

Color brn/yel (10YR 4/6) mottled w/ yel brn (10YR 5/6)

Odor anal d k yel brn (10YR 4/4)

1. Odor Strength (circle one)

☒ None ☐ Slight ☐ Strong

2. Odor Description (circle one)

Organic ☒ Petroleum ☐ Chemical

☒ N/A

Other _____

Moisture Condition (circle one)

Dry ☒ Moist ☐ Wet

PG Signature [Signature]

PG Registration # 7735

Additional Comments Collected using hand auger because soil could not be retained in slide hammer s/revers.

Location ID: DC-865		Subarea: SA		Date Started: 6-19-13		Date Completed: 6-19-13	
Client: DOE		Project Name/ID: SSP-65250-03370-1203-002-223-02231-SSPH				Total Depth: 1st DPT = 9.5 2nd DPT = 9.7 3rd DPT = 9.0	
Company Name: CDM SMITH		Drill Contractor/Driller: Strong arm				Depth Drilled Into Bedrock: NA	
GPS collected? Yes or No		Drill Method: DPT				Sampling Method: DPT SS sleeves	
Radiological Background: Y=12 AB=91		Borehole diameter: 2.25				Geologist: David Rojas	
PID Background: 0.0		Depth to GW: NA				PG Review & No.: Valu 90 off from #7735	
Radiological Equipment Used:							
<input checked="" type="checkbox"/> MicroR <input checked="" type="checkbox"/> Alpha/Beta <input checked="" type="checkbox"/> Pancake							

Depth (feet)	bgs	Recovery (feet)	PID (ppm)	Radiological (uR/cpm)	Sample Name	Sample Time	USCS	Description of Materials
0.0-0.5		0.5	0.0	12/80	SL-865 SA5A-SB 0.0-0.5	1340	SP	SAND w/ SILT, brn (7.5YR 5/4) f. med qz, sr to sa, quartz, ~10% silt dry, sli to mod compacted, friable, to ant org (roots) to ant asphalt & igneous gravel - Fine to med sized
1		2.0	0.0	10/48			SP	SAND w/ SILT, dk yel brn (10YR 4/4) mottled w/ strong brn (7.5YR 4/6) and brn (7.5YR 5/4), f. med qz, sr to sa, quartz, dry, mod compacted, mod friable to friable ~10% silt, to ant igneous gravel (A.A.), to ant mottling w/ sandy silt, v pale brn (10YR 7/4)
2		3.5	0.0	10/40			SM	SILTY SAND, brn (7.5YR 5/3) mottled w/ strong brn (7.5YR 5/4) f. med qz, sr to sa, quartz, dry, ~20% silt compacted, sli friable, sli laminated (3-6mm) at top of unit becoming non laminated w/ depth & only mod compacted and more friable, to some mottling w/ sandy silt A.A.
3			0.0	19/66			SM	SILTY SAND, A.A. except no laminations & only mod compacted & mod friable to friable
4			0.0	10/66	SL-865 SA5A-SB 4.0-5.0	1355	SM	
5			0.0	10/54				
6		3.0	0.0	10/66				
7		4.0	0.0	10/72			SM	SILTY SAND, yel brn (10YR 5/4) mottled w/ v pale brn (10YR 7/4) f. med qz, sr to sa, quartz, sli to mod compacted, friable, dry, ~20% silt, some few blks of sandy silt dk yel brn (10YR 3/4) sli consolidated
8		1.7	0.0	10/84			SC	CLAYEY SAND, v pale brn (10YR 7/3) mottled w/ brn (10YR 5/4) f. med qz, sr to sa, quartz, mod compacted, friable, dry Clay is dispersed w/ sd and present as laminations ~90% low plasticity, brittle, blocky
9		1.7	0.0	10/78	SL-865 SA5A-SB 9.0-10.0	1410	SM	SAND w/ SILT, dk yel (10YR 4/6) mottled w/ yel (10YR 6/6) and yel brn (10YR 5/4) f. med qz, sr to sa, quartz, dry, mod loose becoming mod compacted w/ depth, dry to sli moist, ~10% silt, few sandstone gravel @ base

SAMPLE
0.0-0.5

~10% silt
0.4

2.0

4.0

6.5

7.8

8.4

9.7

CDM Smith

BORING LOG AND SAMPLING RECORD

Page 1 of 1

ABBREVIATIONS:

amt: amount	gr: grained	pg: poorly graded	t: trace	nr: no recovery
c: coarse	lt: light	rnd: rounded	v: very	
dk: dark	m: medium	sa: subangular	wg: well graded	
ft: fine	mod: moderate	sr: subrounded	φ: diameter	bgs: below ground surface

SSFL Phase 3 – Field Sample Data Sheet

CDM Smith

FSDS Checked By

V. Cruz

Sample ID

SL-865-SA5A-SB-0.0-0.5

Date/Time

6-19-13 / 1340

Matrix (circle one)

☒ Soil

☐ Sediment

☐ Water

Start Depth

0.0

End Depth

0.5

Depth Units (circle one)

☐ Inches

☒ Feet

Check if Composite ☐

Collection Method (circle one)

☒ DPT

☐ Slide Hammer

☐ Hand Auger/Slide Hammer

☐ Trenching

☐ Sediment

QC Type (circle one)

☒ N

☐ FD

☐ FB

☐ RB

Parent Sample ID

NA

Field Geologist

David Rojas

Sampler

Vidal Cortes

Analysis

Parameters	Method	Analyze?
Metals	EPA 6010	<input checked="" type="checkbox"/>
	EPA 6020	<input checked="" type="checkbox"/>
	EPA 7471 (Soil)	<input checked="" type="checkbox"/>
	EPA 7470 (Water)	<input type="checkbox"/>
Fluoride	EPA 300.0/9056	<input type="checkbox"/>
SVOCS	EPA 8270	<input type="checkbox"/>
TIC	EPA 8270	<input type="checkbox"/>
PAHs	EPA 8270 SIM	<input checked="" type="checkbox"/>
1,4 Dioxane	EPA 8270 SIM	<input type="checkbox"/>
Dioxins	EPA 1613	<input checked="" type="checkbox"/>
PCBs/PCTs	EPA 8082	<input type="checkbox"/>
Perchlorate	EPA 314.0/331	<input type="checkbox"/>
Perchlorate Confirmation	EPA 6850/6860	<input type="checkbox"/>
pH	EPA 9045 (Soil)	<input checked="" type="checkbox"/>
	EPA 9040 (Water)	<input type="checkbox"/>
Hexavalent Chromium	EPA 7196/7199	<input type="checkbox"/>
Herbicides	EPA 8151	<input type="checkbox"/>
Pesticides	EPA 8081	<input type="checkbox"/>

Parameters	Method	Analyze?
VOCs	EPA 8260	<input type="checkbox"/>
1,4 Dioxane	EPA 8260 SIM	<input type="checkbox"/>
TPH-GRO	EPA 8015	<input type="checkbox"/>
TPH-EFH	EPA 8015	<input checked="" type="checkbox"/>
Glycols	EPA 8015	<input type="checkbox"/>
Alcohols	EPA 8015	<input type="checkbox"/>
Terphenyls	EPA 8015	<input type="checkbox"/>
Nitrates	EPA 300.0/9056	<input type="checkbox"/>
Energetics	EPA 8330	<input type="checkbox"/>
Cyanide	EPA 9012	<input type="checkbox"/>
Formaldehyde	EPA 8315	<input type="checkbox"/>
NDMA	EPA 1625	<input type="checkbox"/>
Sediment	NOAA Status and Trends, Krone et al.	<input type="checkbox"/>
	Methyl Mercury	EPA 1630

2 DPT SS Slaves & 1 4-oz jar

SSFL Phase 3 – Field Data Sample Sheet (Sample Descriptions)

Soil Classification (circle one)

MAJOR DIVISION			GROUP SYMBOL	LETTER SYMBOL	GROUP NAME
COARSE GRAINED SOILS CONTAINS MORE THAN 50% FINES	GRAVEL AND GRAVELLY SOILS MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	GRAVEL WITH $\geq 5\%$ FINES		GW	Well-graded GRAVEL
		GRAVEL WITH BETWEEN 5% AND 15% FINES		GP	Poorly graded GRAVEL
				GW-GM	Well-graded GRAVEL with silt
				GW-GC	Well-graded GRAVEL with clay
				GP-GM	Poorly graded GRAVEL with silt
		GRAVEL WITH $\geq 10\%$ FINES		GP-GC	Poorly graded GRAVEL with clay
				GM	Silty GRAVEL
		SAND AND SANDY SOILS MORE THAN 50% OF COARSE FRACTION PASSING ON NO. 4 SIEVE	SAND WITH $\geq 5\%$ FINES		GC
				SW	Well-graded SAND
	SAND WITH BETWEEN 5% AND 15% FINES			SP	Poorly graded SAND
				SW-SM	Well-graded SAND with silt
				SW-SC	Well-graded SAND with clay
				SP-SM	Poorly graded SAND with silt
	SAND WITH $\geq 15\%$ FINES			SP-SC	Poorly graded SAND with clay
				SM	Silty SAND
	FINE GRAINED SOILS CONTAINS MORE THAN 50% FINES	SILT AND CLAY	LIQUID LIMIT LESS THAN 50		SC
				ML	Inorganic SILT with low plasticity
				CL	Lean inorganic CLAY with low plasticity
LIQUID LIMIT GREATER THAN 50				OL	Organic SILT with low plasticity
				MH	Elastic inorganic SILT with moderate to high plasticity
				CH	Fat inorganic CLAY with moderate to high plasticity
				CH	Organic SILT or CLAY with moderate to high plasticity
HIGHLY ORGANIC SOILS				PT	PEAT soils with high organic contents

Fill Material

1. Is Fill Material Present ☒ Yes ☐ No

2. Percentage Fill (%) Trace 17% Small 13

3. Fill Description (circle all that apply)

☒ Asphalt ☐ Metal ☐ Plastic

☐ Concrete ☐ Wood ☐ Glass

☒ Igneous/Metamorphic Gravel ☐ N/A

Other _____

Is Staining Present Yes ☐ No ☒

Color brown (7.5YR 5/4)

Odor

1. Odor Strength (circle one)
☒ None ☐ Slight ☐ Strong

2. Odor Description (circle one)
☐ Organic ☐ Petroleum ☐ Chemical

☒ N/A ☐ Other _____

Moisture Condition (circle one)

☒ Dry ☐ Moist ☐ Wet

PG Signature Mike Hoffman

PG Registration # 7735

Additional Comments NA

SSFL Phase 3 – Field Sample Data Sheet

CDM Smith

FSDS Checked By ✓ Gt

Sample ID SL-865-SA5A-SB-4.0-5.0 Date/Time 6-19-13 / 1355

Matrix (circle one)	Start Depth <u>4.0</u>	Depth Units (circle one)
<input checked="" type="radio"/> Soil <input type="radio"/> Sediment <input type="radio"/> Water	End Depth <u>5.0</u>	Inches <input checked="" type="radio"/> Feet

Check if Composite ☐ Collection Method (circle one)

☒ DPT ☐ Slide Hammer ☐ Hand Auger/Slide Hammer ☐ Trenching ☐ Sediment

QC Type (circle one) Parent Sample ID NA

☒ N ☐ FD ☐ FB ☐ RB

Field Geologist David Rojas

Sampler Vidal Cortes

Analysis

	Parameters	Method	Analyze?
	Metals	EPA 6010	<input checked="" type="checkbox"/>
		EPA 6020	<input checked="" type="checkbox"/>
		EPA 7471 (Soil)	<input checked="" type="checkbox"/>
		EPA 7470 (Water)	
	Fluoride	EPA 300.0/9056	
	SVOCs	EPA 8270	
	TIC	EPA 8270	
	PAHs	EPA 8270 SIM	<input checked="" type="checkbox"/>
	1,4 Dioxane	EPA 8270 SIM	
	Dioxins	EPA 1613	<input checked="" type="checkbox"/>
	PCBs/PCTs	EPA 8082	
	Perchlorate	EPA 314.0/331	
	Perchlorate Confirmation	EPA 6850/6860	
	pH	EPA 9045 (Soil)	<input checked="" type="checkbox"/>
		EPA 9040 (Water)	
	Hexavalent Chromium	EPA 7196/7199	
	Herbicides	EPA 8151	
	Pesticides	EPA 8081	

	Parameters	Method	Analyze?
Encores	VOCs	EPA 8260	
	1,4 Dioxane	EPA 8260 SIM	
	TPH-GRO	EPA 8015	<input checked="" type="checkbox"/>
	TPH-EFH	EPA 8015	<input checked="" type="checkbox"/>
Sediment	Glycols	EPA 8015	
	Alcohols	EPA 8015	
	Terphenyls	EPA 8015	
	Nitrates	EPA 300.0/9056	
	Energetics	EPA 8330	
	Cyanide	EPA 9012	
	Formaldehyde	EPA 8315	
	NDMA	EPA 1625	
	Organotin	NOAA Status and Trends, Krone et al.	
	Methyl Mercury	EPA 1630	

2 16-oz jars & 2 Encores

SSFL Phase 3 – Field Data Sample Sheet (Sample Descriptions)

Soil Classification (circle one)

MAJOR DIVISION			GROUP SYMBOL	LETTER SYMBOL	GROUP NAME
COARSE GRAINED SOILS CONTAINS MORE THAN 50% FINES	GRAVEL AND GRAVELLY SOILS MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	GRAVEL WITH ≥ 5% FINES		GW	Well-graded GRAVEL
		GRAVEL WITH BETWEEN 5% AND 15% FINES		GP	Poorly graded GRAVEL
				GW-GM	Well-graded GRAVEL with silt
				GW-GC	Well-graded GRAVEL with clay
				GP-GM	Poorly graded GRAVEL with silt
			GP-GC	Poorly graded GRAVEL with clay	
	SAND AND SANDY SOILS MORE THAN 50% OF COARSE FRACTION PASSING ON NO. 4 SIEVE	GRAVEL WITH ≥ 10% FINES		GM	Silty GRAVEL
			GC	Clayey GRAVEL	
		SAND WITH ≥ 5% FINES		SW	Well-graded SAND
				SP	Poorly graded SAND
		SAND WITH BETWEEN 5% AND 15% FINES		SW-SM	Well-graded SAND with silt
				SW-SC	Well-graded SAND with clay
				SP-SM	Poorly graded SAND with silt
				SP-SC	Poorly graded SAND with clay
FINE GRAINED SOILS CONTAINS MORE THAN 50% FINES	SILT AND CLAY	LIQUID LIMIT LESS THAN 50		ML	Inorganic SILT with low plasticity
				CL	Lean inorganic CLAY with low plasticity
				OL	Organic SILT with low plasticity
		LIQUID LIMIT GREATER THAN 50		MH	Elastic inorganic SILT with moderate to high plasticity
				CH	Fat inorganic CLAY with moderate to high plasticity
				CH	Organic SILT or CLAY with moderate to high plasticity
HIGHLY ORGANIC SOILS				PT	PEAT soils with high organic contents

Fill Material

1. Is Fill Material Present Yes ☐ No ☒

2. Percentage Fill (%) None

3. Fill Description (circle all that apply)

Asphalt Metal Plastic

Concrete Wood Glass

Igneous/Metamorphic Gravel ☒ N/A

Other _____

Is Staining Present Yes ☐ No ☒

Color brn (7.5YR 5/3) mottled w/ strong brn (7.5YR 5/8)

Odor

1. Odor Strength (circle one)
☒ None Slight Strong

2. Odor Description (circle one)
Organic Petroleum Chemical
☒ N/A Other _____

Moisture Condition (circle one)

☒ Dry Moist Wet

PG Signature Mike Hoffman

PG Registration # 7735

Additional Comments

N/A

SSFL Phase 3 – Field Sample Data Sheet

CDM Smith

FSDS Checked By J. G. E.

Sample ID SL-865-SA5A-SB-9.0-10.0 Date/Time 6-19-13 / 1410

Matrix (circle one)
☒ Soil ☐ Sediment ☐ Water

Start Depth 9.0
 End Depth 10.0

Depth Units (circle one)
 Inches ☐ Feet ☒

Check if Composite ☐

Collection Method (circle one)
☒ DPT ☐ Slide Hammer ☐ Hand Auger/Slide Hammer ☐ Trenching ☐ Sediment

QC Type (circle one)
☒ N ☐ FD ☐ FB ☐ RB

Parent Sample ID NA

Field Geologist David Rojas

Sampler Vidal Cortes

Analysis

Parameters	Method	Analyze?
Metals	EPA 6010	<input checked="" type="checkbox"/>
	EPA 6020	<input checked="" type="checkbox"/>
	EPA 7471 (Soil)	<input checked="" type="checkbox"/>
	EPA 7470 (Water)	<input type="checkbox"/>
Fluoride	EPA 300.0/9056	<input type="checkbox"/>
SVOCS	EPA 8270	<input type="checkbox"/>
TIC	EPA 8270	<input type="checkbox"/>
PAHs	EPA 8270 SIM	<input checked="" type="checkbox"/>
1,4 Dioxane	EPA 8270 SIM	<input type="checkbox"/>
Dioxins	EPA 1613	<input checked="" type="checkbox"/>
PCBs/PCTs	EPA 8082	<input type="checkbox"/>
Perchlorate	EPA 314.0/331	<input type="checkbox"/>
Perchlorate Confirmation	EPA 6850/6860	<input type="checkbox"/>
pH	EPA 9045 (Soil)	<input checked="" type="checkbox"/>
	EPA 9040 (Water)	<input type="checkbox"/>
Hexavalent Chromium	EPA 7196/7199	<input type="checkbox"/>
Herbicides	EPA 8151	<input type="checkbox"/>
Pesticides	EPA 8081	<input type="checkbox"/>

Parameters	Method	Analyze?
Encores	VOCs	EPA 8260
	1,4 Dioxane	EPA 8260 SIM
	TPH-GRO	EPA 8015
	TPH-EFH	EPA 8015
	Glycols	EPA 8015
	Alcohols	EPA 8015
	Terphenyls	EPA 8015
	Nitrates	EPA 300.0/9056
	Energetics	EPA 8330
	Cyanide	EPA 9012
Sediment	Formaldehyde	EPA 8315
	NDMA	EPA 1625
	Organotin	NOAA Status and Trends, Krone et al.
	Methyl Mercury	EPA 1630

2 16 oz jars & 2 Encores

SSFL Phase 3 – Field Data Sample Sheet (Sample Descriptions)

Soil Classification (circle one)

MAJOR DIVISION			GROUP SYMBOL	LETTER SYMBOL	GROUP NAME
COARSE GRAINED SOILS CONTAINS MORE THAN 50% FINES	GRAVEL AND GRAVELLY SOILS MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	GRAVEL WITH * 5% FINES		GW	Well-graded GRAVEL
				GP	Poorly graded GRAVEL
		GRAVEL WITH BETWEEN 5% AND 15% FINES		GW-GM	Well-graded GRAVEL with silt
				GW-GC	Well-graded GRAVEL with clay
				GP-GM	Poorly graded GRAVEL with silt
				GP-GC	Poorly graded GRAVEL with clay
		GRAVEL WITH ≥ 10% FINES		GM	Silty GRAVEL
				GC	Clayey GRAVEL
	SAND AND SANDY SOILS MORE THAN 50% OF COARSE FRACTION PASSING ON NO. 4 SIEVE	SAND WITH * 5% FINES		SW	Well-graded SAND
				SP	Poorly graded SAND
		SAND WITH BETWEEN 5% AND 15% FINES		SW-SM	Well-graded SAND with silt
				SW-SC	Well-graded SAND with clay
				SP-SM	Poorly graded SAND with silt
				SP-SC	Poorly graded SAND with clay
		SAND WITH ≥ 15% FINES		SM	Silty SAND
				SC	Clayey SAND
FINE GRAINED SOILS CONTAINS MORE THAN 50% FINES	SILT AND CLAY	LIQUID LIMIT LESS THAN 50		ML	Inorganic SILT with low plasticity
				CL	Lean inorganic CLAY with low plasticity
				OL	Organic SILT with low plasticity
		LIQUID LIMIT GREATER THAN 50		MH	Elastic inorganic SILT with moderate to high plasticity
				CH	Fat inorganic CLAY with moderate to high plasticity
				CH	Organic SILT or CLAY with moderate to high plasticity
			HIGHLY ORGANIC SOILS		

Fill Material

- Is Fill Material Present Yes ☒ No ☐
- Percentage Fill (%) None
- Fill Description (circle all that apply)

Asphalt	Metal	Plastic
Concrete	Wood	Glass
Igneous/Metamorphic Gravel	<input checked="" type="radio"/> N/A	
Other _____		

Is Staining Present

Yes ☒ No ☐

Color brown/yel (10YR 6/6) mottled w/ yel (10YR 7/6) and

Odor yel brown (10YR 6/6)

1. Odor Strength (circle one)

☒ None ☐ Slight ☐ Strong

2. Odor Description (circle one)

Organic ☒ Petroleum ☐ Chemical ☐

☒ N/A

Other _____

Moisture Condition (circle one)

☒ Dry ☐ Moist ☐ Wet

PG Signature Muler [Signature]

PG Registration # 7735

Additional Comments N/A

Page 1 of 1

amt: amount	gr: grained	pg: poorly graded	t: trace	nr: no recovery
c: coarse	lt: light	rnd: rounded	v: very	
dk: dark	m: medium	sa: subangular	wg: well graded	
f: fine	mod: moderate	sr: subrounded	φ: diameter	bgs: below ground surface

SSFL Phase 3 – Field Sample Data Sheet

CDM Smith

FSDS Checked By V. Gt

Sample ID SL-866-SA5A-SB-0.0-0.5 Date/Time 6-19-13/1040

Matrix (circle one)	Start Depth	Depth Units (circle one)
<u>Soil</u> Sediment Water	<u>0.0</u>	Inches <u>Feet</u>
	End Depth <u>0.5</u>	

Check if Composite ☐ Collection Method (circle one)

DPT Slide Hammer Hand Auger/Slide Hammer Trenching Sediment

QC Type (circle one)

N FD FB RB Parent Sample ID NA

Field Geologist David Rojas

Sampler Vidal Cortes

Analysis

Parameters	Method	Analyze?
Metals	EPA 6010	<u>X</u>
	EPA 6020	<u>X</u>
	EPA 7471 (Soil)	<u>X</u>
	EPA 7470 (Water)	
Fluoride	EPA 300.0/9056	
SVOCs	EPA 8270	
TIC	EPA 8270	
PAHs	EPA 8270 SIM	<u>X</u>
1,4 Dioxane	EPA 8270 SIM	
Dioxins	EPA 1613	<u>X</u>
PCBs/PCTs	EPA 8082	
Perchlorate	EPA 314.0/331	
Perchlorate Confirmation	EPA 6850/6860	
pH	EPA 9045 (Soil)	<u>X</u>
	EPA 9040 (Water)	
Hexavalent Chromium	EPA 7196/7199	
Herbicides	EPA 8151	
Pesticides	EPA 8081	

Parameters	Method	Analyze?
Encores	VOCs	EPA 8260
	1,4 Dioxane	EPA 8260 SIM
	TPH-GRO	EPA 8015
	TPH-EFH	EPA 8015 <u>X</u>
Sediment	Glycols	EPA 8015
	Alcohols	EPA 8015
	Terphenyls	EPA 8015
	Nitrates	EPA 300.0/9056
	Energetics	EPA 8330
	Cyanide	EPA 9012
	Formaldehyde	EPA 8315
	NDMA	EPA 1625
	Organotin	NOAA Status and Trends, Krone et al.
	Methyl Mercury	EPA 1630

2 slidehammer sleeves 14oz jar

SSFL Phase 3 – Field Data Sample Sheet (Sample Descriptions)

Soil Classification (circle one)

MAJOR DIVISION			GROUP SYMBOL	LETTER SYMBOL	GROUP NAME
COARSE GRAINED SOILS CONTAINS MORE THAN 50% FINES	GRAVEL AND GRAVELLY SOILS MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	GRAVEL WITH $\geq 5\%$ FINES		GW	Well-graded GRAVEL
				GP	Poorly graded GRAVEL
		GRAVEL WITH BETWEEN 5% AND 15% FINES		GW-GM	Well-graded GRAVEL with silt
				GW-GC	Well-graded GRAVEL with clay
				GP-GM	Poorly graded GRAVEL with silt
				GP-GC	Poorly graded GRAVEL with clay
	SAND AND SANDY SOILS MORE THAN 50% OF COARSE FRACTION PASSING ON NO. 4 SIEVE	GRAVEL WITH $\geq 10\%$ FINES		GM	Silty GRAVEL
				GC	Clayey GRAVEL
		SAND WITH $\geq 5\%$ FINES		SW	Well-graded SAND
				SP	Poorly graded SAND
		SAND WITH BETWEEN 5% AND 15% FINES		SW-SM	Well-graded SAND with silt
				SW-SC	Well-graded SAND with clay
SAND WITH $\geq 15\%$ FINES			SP-SM	Poorly graded SAND with silt	
			SP-SC	Poorly graded SAND with clay	
FINE GRAINED SOILS CONTAINS MORE THAN 50% FINES	SILT AND CLAY	LIQUID LIMIT LESS THAN 50		ML	Inorganic SILT with low plasticity
				CL	Lean inorganic CLAY with low plasticity
				OL	Organic SILT with low plasticity
		LIQUID LIMIT GREATER THAN 50		MH	Elastic inorganic SILT with moderate to high plasticity
			CH	Fat inorganic CLAY with moderate to high plasticity	
			CH	Organic SILT or CLAY with moderate to high plasticity	
	HIGHLY ORGANIC SOILS			PT	PEAT soils with high organic contents

Fill Material

1. Is Fill Material Present

Yes

No

2. Percentage Fill (%)

Trace 1%

3. Fill Description (circle all that apply)

Asphalt Metal Plastic

Concrete Wood Glass

Igneous/Metamorphic Gravel N/A

Other

Is Staining Present Yes No

Color

Brown (7.5 YR 4/3)

Odor

1. Odor Strength (circle one)

None

Slight

Strong

2. Odor Description (circle one)

Organic

Petroleum

Chemical

N/A

Other

Moisture Condition (circle one)

Dry

Moist

Wet

PG Signature

Mike Hoffman

PG Registration #

7735

Additional Comments

N/A

SSFL Phase 3 – Field Sample Data Sheet

CDM Smith

FSDS Checked By V. CTE

Sample ID SL-866-^{SA5A}~~885~~-SB-5.5-6.5 Date/Time 6-19-13/1115
~~NA~~

Matrix (circle one)
☒ Soil ☐ Sediment ☐ Water

Start Depth 5.5
 End Depth 6.5

Depth Units (circle one)
 Inches ☐ Feet ☒

Check if Composite ☐

DPT

Slide Hammer

Collection Method (circle one)

Hand Auger

Slide Hammer

Trenching

Sediment

QC Type (circle one)

N

FD

FB

RB

Parent Sample ID

NA

Field Geologist

David Rojas

Sampler

Uidal Cortes

Analysis

Parameters	Method	Analyze?
Metals	EPA 6010	<input checked="" type="checkbox"/>
	EPA 6020	<input checked="" type="checkbox"/>
	EPA 7471 (Soil)	<input checked="" type="checkbox"/>
	EPA 7470 (Water)	<input type="checkbox"/>
Fluoride	EPA 300.0/9056	<input type="checkbox"/>
SVOCS	EPA 8270	<input type="checkbox"/>
TIC	EPA 8270	<input type="checkbox"/>
PAHs	EPA 8270 SIM	<input checked="" type="checkbox"/>
1,4 Dioxane	EPA 8270 SIM	<input type="checkbox"/>
Dioxins	EPA 1613	<input checked="" type="checkbox"/>
PCBs/PCTs	EPA 8082	<input type="checkbox"/>
Perchlorate	EPA 314.0/331	<input type="checkbox"/>
Confirmation	EPA 6850/6860	<input type="checkbox"/>
pH	EPA 9045 (Soil)	<input checked="" type="checkbox"/>
	EPA 9040 (Water)	<input type="checkbox"/>
Hexavalent Chromium	EPA 7196/7199	<input type="checkbox"/>
Herbicides	EPA 8151	<input type="checkbox"/>
Pesticides	EPA 8081	<input type="checkbox"/>

Parameters	Method	Analyze?
Encores	VOCs	EPA 8260
	1,4 Dioxane	EPA 8260 SIM
	TPH-GRO	EPA 8015
	TPH-EFH	EPA 8015
Sediment	Glycols	EPA 8015
	Alcohols	EPA 8015
	Terphenyls	EPA 8015
	Nitrates	EPA 300.0/9056
	Energetics	EPA 8330
	Cyanide	EPA 9012
	Formaldehyde	EPA 8315
	NDMA	EPA 1625
	Organotin	NOAA Status and Trends, Krone et al.
	Methyl Mercury	EPA 1630

1 slide hammer, 1-6oz jar, & 2 Encores
Sleeve

SSFL Phase 3 – Field Data Sample Sheet (Sample Descriptions)

Soil Classification (circle one)

MAJOR DIVISION			GROUP SYMBOL	LETTER SYMBOL	GROUP NAME	
COARSE GRAINED SOILS CONTAINS MORE THAN 50% FINES	GRAVEL AND GRAVELLY SOILS MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	GRAVEL WITH * 5% FINES		GW	Well-graded GRAVEL	
				GP	Poorly graded GRAVEL	
		GRAVEL WITH BETWEEN 5% AND 15% FINES		GW-GM	Well-graded GRAVEL with silt	
				GW-GC	Well-graded GRAVEL with clay	
				GP-GM	Poorly graded GRAVEL with silt	
				GP-GC	Poorly graded GRAVEL with clay	
	SAND AND SANDY SOILS MORE THAN 50% OF COARSE FRACTION PASSING ON NO. 4 SIEVE	GRAVEL WITH ≥ 10% FINES		GM	Silty GRAVEL	
				GC	Clayey GRAVEL	
		SAND WITH * 5% FINES		SW	Well-graded SAND	
				SP	Poorly graded SAND	
SAND WITH BETWEEN 5% AND 15% FINES			SW-SM	Well-graded SAND with silt		
			SW-SC	Well-graded SAND with clay		
		SP-SM	Poorly graded SAND with silt			
		SP-SC	Poorly graded SAND with clay			
SAND WITH ≥ 15% FINES		SM	Silty SAND			
		SC	Clayey SAND			
	FINE GRAINED SOILS CONTAINS MORE THAN 50% FINES	SILT AND CLAY	LIQUID LIMIT LESS THAN 50		ML	Inorganic SILT with low plasticity
					CL	Lean inorganic CLAY with low plasticity
				OL	Organic SILT with low plasticity	
		LIQUID LIMIT GREATER THAN 50		MH	Elastic inorganic SILT with moderate to high plasticity	
				CH	Fat inorganic CLAY with moderate to high plasticity	
				OH	Organic SILT or CLAY with moderate to high plasticity	
HIGHLY ORGANIC SOILS				PT	PEAT soils with high organic contents	

Fill Material

1. Is Fill Material Present Yes ☒ No

2. Percentage Fill (%) None

3. Fill Description (circle all that apply)

Asphalt Metal Plastic

Concrete Wood Glass

Igneous/Metamorphic Gravel ☒ N/A

Other _____

Is Staining Present Yes ☒ No

Color dk yel brn (10YR 4/4)

Odor

1. Odor Strength (circle one)

☒ None ☐ Slight ☐ Strong

2. Odor Description (circle one)

Organic Petroleum Chemical

☒ N/A Other _____

Moisture Condition (circle one)

☒ Dry ☐ Moist ☐ Wet

PG Signature [Signature]

PG Registration # 7735

Additional Comments NA

Location ID: DG-867		Subarea: 5A		Date Started: 6-20-13		Date Completed: 6-20-13	
Client: DOE		Project Name/#: SSFL-65258-63976-1203.002.223.02231.33PHS ³⁰¹²				Total Depth: 1st HA=4.5 2nd HA=4.5	
Company Name: CDM SMITH				Drill Contractor/Driller: NA		Depth Drilled into Bedrock: NA	
GPS collected? <input checked="" type="checkbox"/> Yes or No				Drill Method: Handauger & Slidehammer		Sampling Method: Slidehammer	
Radiological Background: X=14 AB=84				Borehole diameter: 2.27		Geologist: David Rojas	
PID Background: 0.0				Depth to GW: NA		PG Review & No.: Miller Hoffman #7735	
Radiological Equipment Used: <input checked="" type="checkbox"/> MicroR <input checked="" type="checkbox"/> Alpha/Beta <input checked="" type="checkbox"/> Pancake							

Depth (feet)	bgs	Recovery (feet)	PID (ppm)	Radiological (μR/cpm)	Sample Name	Sample Time	USCS	Description of Materials
0.0-0.5	1	0.5/0.5	0.0	14/88	SL-867	0825	SP	SAND w/ SILT, brn (7.5 YR 5/4), f-m grn, pg, sr to sa, quartz, ~10% silt, dry, med compacted, sli to med friable, to ant siltstone gravel. It yel brn (2.5 YR 6/3), tabular, med well cemented, med friable to hard.
		0.0	13/84	SA5A-SB	0.0-0.5	0825	SM	
1-2	2	0.0	13/78					SILTY SAND, strong brn (7.5 YR 4/6) form w/ to ant med grn pg, sr to sa, quartz, dry, sli to med well compacted, med friable, ~20% silt, to ant org (roots)
		0.0	13/84					
2-3	3	0.0	13/78					SILTY SAND, A.A except also has trace amt of fine weathered sandstone gravel - brn yel (10 YR 6/6) mottled w/ yel brn (10 YR 5/6), f-m grn, pg, sr to sa, quartz, poorly cemented, sli friable to med hard, increasingly to fine with depth
		0.0	13/78					
3-4	4	0.0	13/78					Refusals @ 4.5 & 4.5
		0.0	13/102					

**CDM
Smith****BORING LOG AND SAMPLING RECORD**Page 1 of **1****ABBREVIATIONS:**

amt: amount	gr: grained	pg: poorly graded	t: trace	nr: no recovery
c: coarse	lt: light	rnd: rounded	v: very	
dk: dark	m: medium	sa: subangular	wg: well graded	
f: fine	mod: moderate	sr: subrounded	φ: diameter	bgs: below ground surface

SSFL Phase 3 – Field Sample Data Sheet

CDM Smith

FSDS Checked By V. G. T.

Sample ID SL-867-SA5A-SB-0.0-0.5 Date/Time 6-20-13/0825

Matrix (circle one)

☒ Soil ☐ Sediment ☐ Water

Start Depth 0.0

End Depth 0.5

Depth Units (circle one)

Inches ☐ Feet ☒

Check if Composite ☐

Collection Method (circle one)

DPT ☒ Slide Hammer ☐ Hand Auger/Slide Hammer ☐ Trenching ☐ Sediment

QC Type (circle one)

☒ N ☐ FD ☐ FB ☐ RB

Parent Sample ID NA

Field Geologist David Rojas

Sampler Vidal Cortes

Analysis

Parameters	Method	Analyze?
Metals	EPA 6010	<input checked="" type="checkbox"/>
	EPA 6020	<input checked="" type="checkbox"/>
	EPA 7471 (Soil)	<input checked="" type="checkbox"/>
	EPA 7470 (Water)	<input type="checkbox"/>
Fluoride	EPA 300.0/9056	<input type="checkbox"/>
SVOCS	EPA 8270	<input type="checkbox"/>
TIC	EPA 8270	<input type="checkbox"/>
PAHs	EPA 8270 SIM	<input checked="" type="checkbox"/>
1,4 Dioxane	EPA 8270 SIM	<input type="checkbox"/>
Dioxins	EPA 1613	<input checked="" type="checkbox"/>
PCBs/PCTs	EPA 8082	<input type="checkbox"/>
Perchlorate	EPA 314.0/331	<input type="checkbox"/>
Perchlorate Confirmation	EPA 6850/6860	<input type="checkbox"/>
pH	EPA 9045 (Soil)	<input checked="" type="checkbox"/>
	EPA 9040 (Water)	<input type="checkbox"/>
Hexavalent Chromium	EPA 7196/7199	<input type="checkbox"/>
Herbicides	EPA 8151	<input type="checkbox"/>
Pesticides	EPA 8081	<input type="checkbox"/>

Parameters	Method	Analyze?
Encores	VOCs	<input type="checkbox"/>
	1,4 Dioxane	<input type="checkbox"/>
	TPH-GRO	<input type="checkbox"/>
	TPH-EFH	<input checked="" type="checkbox"/>
Sediment	Glycols	<input type="checkbox"/>
	Alcohols	<input type="checkbox"/>
	Terphenyls	<input type="checkbox"/>
	Nitrates	<input type="checkbox"/>
	Energetics	<input type="checkbox"/>
	Cyanide	<input type="checkbox"/>
	Formaldehyde	<input type="checkbox"/>
	NDMA	<input type="checkbox"/>
	Organotin	<input type="checkbox"/>
	Methyl Mercury	<input type="checkbox"/>

2 Slidehammer sleeves & 1 4 oz jar

SSFL Phase 3 – Field Data Sample Sheet (Sample Descriptions)

Soil Classification (circle one)

MAJOR DIVISION			GROUP SYMBOL	LETTER SYMBOL	GROUP NAME
COARSE GRAINED SOILS CONTAINS MORE THAN 50% FINES	GRAVEL AND GRAVELLY SOILS MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	GRAVEL WITH \leq 5% FINES		GW	Well-graded GRAVEL
				GP	Poorly graded GRAVEL
		GRAVEL WITH BETWEEN 5% AND 15% FINES		GW-GM	Well-graded GRAVEL with silt
				GW-GC	Well-graded GRAVEL with clay
				GP-GM	Poorly graded GRAVEL with silt
				GP-GC	Poorly graded GRAVEL with clay
		GRAVEL WITH \geq 15% FINES		GM	Silty GRAVEL
				GC	Clayey GRAVEL
	SAND AND SANDY SOILS MORE THAN 50% OF COARSE FRACTION PASSING ON NO. 4 SIEVE	SAND WITH \leq 5% FINES		SW	Well-graded SAND
				SP	Poorly graded SAND
		SAND WITH BETWEEN 5% AND 15% FINES		SW-SM	Well-graded SAND with silt
				SW-SC	Well-graded SAND with clay
				SP-SM	Poorly graded SAND with silt
				SP-SC	Poorly graded SAND with clay
		SAND WITH \geq 15% FINES		SM	Silty SAND
				SC	Clayey SAND
FINE GRAINED SOILS CONTAINS MORE THAN 50% FINES	SILT AND CLAY	LIQUID LIMIT LESS THAN 50		ML	Inorganic SILT with low plasticity
				CL	Lean inorganic CLAY with low plasticity
				OL	Organic SILT with low plasticity
		LIQUID LIMIT GREATER THAN 50		MH	Elastic inorganic SILT with moderate to high plasticity
				CH	Fat inorganic CLAY with moderate to high plasticity
				OH	Organic SILT or CLAY with moderate to high plasticity
HIGHLY ORGANIC SOILS				PT	PEAT soils with high organic contents

Fill Material

- Is Fill Material Present ☒ Yes ☒ No *small*
- Percentage Fill (%) 1% *None Trace*
- Fill Description (circle all that apply)

Asphalt	Metal	Plastic
Concrete	Wood	Glass
Igneous/Metamorphic Gravel	<input checked="" type="radio"/> N/A	<input checked="" type="radio"/> GR
Other	<u>Siltstone gravel</u>	

Is Staining Present Yes ☒ No ☒

Color brown (7.5YR 5/4)

Odor

1. Odor Strength (circle one)
☒ None ☐ Slight ☐ Strong

2. Odor Description (circle one)
Organic ☐ Petroleum ☐ Chemical ☐
☒ N/A Other _____

Moisture Condition (circle one)

☒ Dry ☐ Moist ☐ Wet

PG Signature *Mike Hoffman*

PG Registration # 7735

Additional Comments NA

SSFL Phase 3 – Field Sample Data Sheet

CDM Smith

FSDS Checked By V. Ortiz

Sample ID SL-867-SA5A-SB-3.5-4.5 Date/Time 6-20-13 / 0850

Matrix (circle one)

☒ Soil ☐ Sediment ☐ Water

Start Depth 3.5

End Depth 4.5

Depth Units (circle one)

Inches ☐ Feet ☒

Check if Composite ☐

Collection Method (circle one)

DPT ☐ Slide Hammer ☒ Hand Auger/Slide Hammer ☐ Trenching ☐ Sediment

QC Type (circle one)

☒ N ☐ FD ☐ FB ☐ RB

Parent Sample ID NA

Field Geologist David Rojas

Sampler Vidal Cortes

Analysis

Parameters	Method	Analyze?
Metals	EPA 6010	<input checked="" type="checkbox"/>
	EPA 6020	<input checked="" type="checkbox"/>
	EPA 7471 (Soil)	<input checked="" type="checkbox"/>
	EPA 7470 (Water)	<input type="checkbox"/>
Fluoride	EPA 300.0/9056	<input type="checkbox"/>
SVOCs	EPA 8270	<input type="checkbox"/>
TIC	EPA 8270	<input type="checkbox"/>
PAHs	EPA 8270 SIM	<input checked="" type="checkbox"/>
1,4 Dioxane	EPA 8270 SIM	<input type="checkbox"/>
Dioxins	EPA 1613	<input checked="" type="checkbox"/>
PCBs/PCTs	EPA 8082	<input type="checkbox"/>
Perchlorate	EPA 314.0/331	<input type="checkbox"/>
Confirmation	EPA 6850/6860	<input type="checkbox"/>
pH	EPA 9045 (Soil)	<input checked="" type="checkbox"/>
	EPA 9040 (Water)	<input type="checkbox"/>
Hexavalent Chromium	EPA 7196/7199	<input type="checkbox"/>
Herbicides	EPA 8151	<input type="checkbox"/>
Pesticides	EPA 8081	<input type="checkbox"/>

Parameters	Method	Analyze?
Encores	VOCs	EPA 8260
	1,4 Dioxane	EPA 8260 SIM
	TPH-GRO	EPA 8015
	TPH-EFH	EPA 8015
	Glycols	EPA 8015
	Alcohols	EPA 8015
	Terphenyls	EPA 8015
	Nitrates	EPA 300.0/9056
	Energetics	EPA 8330
	Cyanide	EPA 9012
Sediment	Formaldehyde	EPA 8315
	NDMA	EPA 1625
	Organotin	NOAA Status and Trends, Krone et al.
	Methyl Mercury	EPA 1630

2 slidehammer streaks, 1-Hex jar, & 2 Encores

SSFL Phase 3 – Field Data Sample Sheet (Sample Descriptions)

Soil Classification (circle one)

MAJOR DIVISION			GROUP SYMBOL	LETTER SYMBOL	GROUP NAME		
COARSE GRAINED SOILS CONTAINS MORE THAN 50% FINES	GRAVEL AND GRAVELLY SOILS MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	GRAVEL WITH * 5% FINES		GW	Well-graded GRAVEL		
				GP	Poorly graded GRAVEL		
		GRAVEL WITH BETWEEN 5% AND 15% FINES		GW-GM	Well-graded GRAVEL with silt		
				GW-GC	Well-graded GRAVEL with clay		
				GP-GM	Poorly graded GRAVEL with silt		
				GP-GC	Poorly graded GRAVEL with clay		
	SAND AND SANDY SOILS MORE THAN 50% OF COARSE FRACTION PASSING ON NO. 4 SIEVE	GRAVEL WITH ≥ 15% FINES		GM	Silty GRAVEL		
				GC	Clayey GRAVEL		
		SAND WITH * 5% FINES		SW	Well-graded SAND		
				SP	Poorly graded SAND		
		SAND WITH BETWEEN 5% AND 15% FINES		SW-SM	Well-graded SAND with silt		
				SW-SC	Well-graded SAND with clay		
				SP-SM	Poorly graded SAND with silt		
				SP-SC	Poorly graded SAND with clay		
FINE GRAINED SOILS CONTAINS MORE THAN 50% FINES	SILT AND CLAY	LIQUID LIMIT LESS THAN 50		ML	Inorganic SILT with low plasticity		
				CL	Lean inorganic CLAY with low plasticity		
				OL	Organic SILT with low plasticity		
		LIQUID LIMIT GREATER THAN 50		MH	Elastic inorganic SILT with moderate to high plasticity		
				CH	Fat inorganic CLAY with moderate to high plasticity		
				OH	Organic SILT or CLAY with moderate to high plasticity		
			HIGHLY ORGANIC SOILS				PT

Fill Material

- Is Fill Material Present Yes ☒ No ☐
- Percentage Fill (%) None
- Fill Description (circle all that apply)

Asphalt	Metal	Plastic
Concrete	Wood	Glass
Igneous/Metamorphic Gravel	<input checked="" type="radio"/> N/A	
Other _____		

Is Staining Present Yes ☒ No ☐ ban gel
 Color strong brown (7.5YR 4/6) & (10YR 6/6) mottled
 Odor with gel brown (10YR 5/6)

1. Odor Strength (circle one)
☒ None ☐ Slight ☐ Strong

2. Odor Description (circle one)
 Organic ☐ Petroleum ☐ Chemical ☐
☒ N/A Other _____

Moisture Condition (circle one)
☒ Dry ☐ Moist ☐ Wet

PG Signature [Signature]

PG Registration # 7735

Additional Comments NA

Location ID: DC-868	Subarea: 5A	Date Started: 6-20-13	Date Completed: 6-20-13
Client: DOE		Project Name/ID: SSFL-65268-63376-1203-002-223-02231-SSPHS-SM/ASIA	
Company Name: CDM SMITH	Drill Contractor/Driller: NA		Total Depth: 1st HA = 4.8 2nd HA = 4.9
GPS collected? Yes or No	Drill Method: Slidehammer/Hand Auger		Depth Drilled into Bedrock: NA
Radiological Background: $\gamma = 13$ $\alpha = 108$	Borehole diameter: 2.75		Sampling Method: Slidehammer/Hand Auger
PID Background: 0.0	Depth to GW: NA		Geologist: David Rojas
Radiological Equipment Used: <input checked="" type="checkbox"/> MicroR <input checked="" type="checkbox"/> Alpha/Beta <input checked="" type="checkbox"/> Pancake		PG Review & No. <i>Muller Hoffman #7735</i>	

SAMPLE
0.0-0.5

Depth (feet)	bgs	Recovery (feet)	PID (ppm)	Radiological (uR/cpm)	Sample Name	Sample Time	USCS	Description of Materials
0.0-0.5		0.5	0.0	13/91	SL-868 SA5A-SB 0.0-0.5	0930	SP	SAND with SILT, lt yel brn (10YR 6/4) mottled w/ yel brn (10YR 5/4) fgn w/ few med grn & tr coarse grn pg, sr to sa, quartz, ~10% silt, sli to med compacted med friable to friable, dry, <5% siltstone & sandstone gravel F to coarse sized, tr to few med org (roots), dry
1			0.0	13/102			SP	SAND with SILT, A.A. except strong brn (7.5YR 5/6) mottled w/ lt brn (7.5YR 6/4). Also contains siltstone & sandstone A.A. & org (roots) - tr
2			0.0	13/92			SM	SILTY SAND strong brn (7.5YR 4/6) mottled w/ reddish yel (7.5YR 6/6), fgn w/ few med grn, pg, sr to sa, quartz, dry, ~20% silt, med compacted to well compacted, sli to med friable, tr med org (roots) & tr med siltstone & sandstone few silty sand nodules becoming more prevalent w/ depth nodules are med well to well compacted, hard to sli friable, slightly clayey w/ low plasticity, stiff.
3			0.0	13/108			SM	SILTY SAND, yel brn (10YR 6/4) fgn, pg, sr to sa, quartz, dry, med loose to loose, ~30% silt
4			0.0	13/84	SL-868 SA5A-SB 4.0-5.0	1025	SP	SAND, brn yel (10YR 6/4) mottled w/ v pale brn (10YR 7/4) fgn w/ few med grn & tr coarse grn, pg, sr to sa, quartz, med loose, dry, tr med weathered silty sandstone gravel sr to sa, fine to med sized, med poorly cemented, friable <5% silt
5			0.0	13/108				

0.5

1.6

3.2

4.0

5.0

Refusals @ 4.8 & 4.9

CDM
Smith

BORING LOG AND SAMPLING RECORD

Page 1 of 1

ABBREVIATIONS:

amt: amount	gr: grained	pg: poorly graded	t: trace	nr: no recovery
c: coarse	lt: light	rnd: rounded	v: very	
dk: dark	m: medium	sa: subangular	wg: well graded	
f: fine	mod: moderate	sr: subrounded	φ: diameter	bgs: below ground surface

SSFL Phase 3 – Field Sample Data Sheet

CDM Smith

FSDS Checked By V. Cortes

Sample ID SL-868-SA5A-SB-0.0-0.5 Date/Time 6-20-13 / 0950

Matrix (circle one)
☒ Soil Sediment Water

Start Depth 0.0
 End Depth 0.5

Depth Units (circle one)
 Inches ☒ Feet

Check if Composite ☐

Collection Method (circle one)
 DPT ☒ Slide Hammer Hand Auger/Slide Hammer Trenching Sediment

QC Type (circle one)
☒ N FD FB RB

Parent Sample ID NA

Field Geologist David Rojas

Sampler Vidal Cortes

Analysis

Parameters	Method	Analyze?
Metals	EPA 6010	<input checked="" type="checkbox"/>
	EPA 6020	<input checked="" type="checkbox"/>
	EPA 7471 (Soil)	<input checked="" type="checkbox"/>
	EPA 7470 (Water)	
Fluoride	EPA 300.0/9056	
SVOCs	EPA 8270	
TIC	EPA 8270	
PAHs	EPA 8270 SIM	<input checked="" type="checkbox"/>
1,4 Dioxane	EPA 8270 SIM	
Dioxins	EPA 1613	<input checked="" type="checkbox"/>
PCBs/PCTs	EPA 8082	
Perchlorate	EPA 314.0/331	
Perchlorate Confirmation	EPA 6850/6860	
pH	EPA 9045 (Soil)	<input checked="" type="checkbox"/>
	EPA 9040 (Water)	
Hexavalent Chromium	EPA 7196/7199	
Herbicides	EPA 8151	
Pesticides	EPA 8081	

Parameters	Method	Analyze?
Encores	VOCs	EPA 8260
	1,4 Dioxane	EPA 8260 SIM
	TPH-GRO	EPA 8015
	TPH-EFH	EPA 8015 <input checked="" type="checkbox"/>
	Glycols	EPA 8015
	Alcohols	EPA 8015
	Terphenyls	EPA 8015
	Nitrates	EPA 300.0/9056
	Energetics	EPA 8330
	Cyanide	EPA 9012
Sediment	Formaldehyde	EPA 8315
	NDMA	EPA 1625
	Organotin	NOAA Status and Trends, Krone et al.
	Methyl Mercury	EPA 1630

2 slidehammer sleeves * 14oz jar

SSFL Phase 3 – Field Data Sample Sheet (Sample Descriptions)

Soil Classification (circle one)

MAJOR DIVISION			GROUP SYMBOL	LETTER SYMBOL	GROUP NAME
COARSE GRAINED SOILS CONTAINS MORE THAN 50% FINES	GRAVEL AND GRAVELLY SOILS MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	GRAVEL WITH $\leq 5\%$ FINES		GW	Well-graded GRAVEL
		GRAVEL WITH BETWEEN 5% AND 15% FINES		GP	Poorly graded GRAVEL
				GW-GM	Well-graded GRAVEL with silt
				GW-GC	Well-graded GRAVEL with clay
				GP-GM	Poorly graded GRAVEL with silt
				GP-GC	Poorly graded GRAVEL with clay
			GRAVEL WITH $\geq 10\%$ FINES		GM
			GC	Clayey GRAVEL	
	SAND AND SANDY SOILS MORE THAN 50% OF COARSE FRACTION PASSING ON NO. 4 SIEVE	SAND WITH $\leq 5\%$ FINES		SW	Well-graded SAND
		SAND WITH BETWEEN 5% AND 15% FINES		SP	Poorly graded SAND
				SW-SM	Well-graded SAND with silt
				SW-SC	Well-graded SAND with clay
				SP-SM	Poorly graded SAND with silt
				SP-SC	Poorly graded SAND with clay
			SAND WITH $\geq 15\%$ FINES		SM
			SC	Clayey SAND	
FINE GRAINED SOILS CONTAINS MORE THAN 50% FINES	SILT AND CLAY	LIQUID LIMIT LESS THAN 50		ML	Inorganic SILT with low plasticity
				CL	Lean inorganic CLAY with low plasticity
				OL	Organic SILT with low plasticity
		LIQUID LIMIT GREATER THAN 50		MH	Elastic inorganic SILT with moderate to high plasticity
				CH	Fat inorganic CLAY with moderate to high plasticity
				CH	Organic SILT or CLAY with moderate to high plasticity
			HIGHLY ORGANIC SOILS		

Fill Material

1. Is Fill Material Present ☒ Yes ☐ No

2. Percentage Fill (%) < 5%

3. Fill Description (circle all that apply)

☒ Asphalt ☐ Metal ☐ Plastic

☐ Concrete ☐ Wood ☐ Glass

☐ Igneous/Metamorphic Gravel ☐ N/A

Other Siltstone & Sandstone gravel

Is Staining Present Yes ☐ No ☒

Color 1/2 yellow (OVR 4/4) 1/2 yellow

Odor (OVR 5/4)

1. Odor Strength (circle one)

☒ None ☐ Slight ☐ Strong

2. Odor Description (circle one)

☐ Organic ☐ Petroleum ☐ Chemical

☒ N/A ☐ Other _____

Moisture Condition (circle one)

☒ Dry ☐ Moist ☐ Wet

PG Signature [Signature]

PG Registration # 7735

Additional Comments NA

SSFL Phase 3 – Field Sample Data Sheet

CDM Smith

FSDS Checked By V. C. T.

Sample ID SL-86B-SA5A-SB-4.0-5.0 Date/Time 6-20-13 / 1025

Matrix (circle one)

☒ Soil ☐ Sediment ☐ Water

Start Depth 4.0

End Depth 5.0

Depth Units (circle one)

Inches ☐ Feet ☒

Check if Composite ☐

Collection Method (circle one)

DPT ☐ Slide Hammer ☐ Hand Auger/Slide Hammer ☐ Trenching ☐ Sediment

QC Type (circle one)

☒ N ☐ FD ☐ FB ☐ RB

Parent Sample ID N/A

Field Geologist David Rojas

Sampler Vidal Cortes

Analysis

Parameters	Method	Analyze?
Metals	EPA 6010	<input checked="" type="checkbox"/>
	EPA 6020	<input checked="" type="checkbox"/>
	EPA 7471 (Soil)	<input checked="" type="checkbox"/>
	EPA 7470 (Water)	<input type="checkbox"/>
Fluoride	EPA 300.0/9056	<input type="checkbox"/>
SVOCs	EPA 8270	<input type="checkbox"/>
TIC	EPA 8270	<input type="checkbox"/>
PAHs	EPA 8270 SIM	<input checked="" type="checkbox"/>
1,4 Dioxane	EPA 8270 SIM	<input type="checkbox"/>
Dioxins	EPA 1613	<input checked="" type="checkbox"/>
PCBs/PCTs	EPA 8082	<input type="checkbox"/>
Perchlorate	EPA 314.0/331	<input type="checkbox"/>
Perchlorate Confirmation	EPA 6850/6860	<input type="checkbox"/>
pH	EPA 9045 (Soil)	<input checked="" type="checkbox"/>
	EPA 9040 (Water)	<input type="checkbox"/>
Hexavalent Chromium	EPA 7196/7199	<input type="checkbox"/>
Herbicides	EPA 8151	<input type="checkbox"/>
Pesticides	EPA 8081	<input type="checkbox"/>

Parameters	Method	Analyze?
Encores	VOCs	EPA 8260
	1,4 Dioxane	EPA 8260 SIM
	TPH-GRO	EPA 8015
	TPH-EFH	EPA 8015
Sediment	Glycols	EPA 8015
	Alcohols	EPA 8015
	Terphenyls	EPA 8015
	Nitrates	EPA 300.0/9056
	Energetics	EPA 8330
	Cyanide	EPA 9012
	Formaldehyde	EPA 8315
	NDMA	EPA 1625
	Organotin	NOAA Status and Trends, Krone et al.
	Methyl Mercury	EPA 1630

2 SS RECOGS, 2 ENCORES,
1 4-oz JAR

SSFL Phase 3 – Field Data Sample Sheet (Sample Descriptions)

Soil Classification (circle one)

MAJOR DIVISION			GROUP SYMBOL	LETTER SYMBOL	GROUP NAME
COARSE GRAINED SOILS CONTAINS MORE THAN 50% FINES	GRAVEL AND GRAVELLY SOILS MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	GRAVEL WITH $\leq 5\%$ FINES		GW	Well-graded GRAVEL
				GP	Poorly graded GRAVEL
		GRAVEL WITH BETWEEN 5% AND 15% FINES		GW-GM	Well-graded GRAVEL with silt
				GW-GC	Well-graded GRAVEL with clay
				GP-GM	Poorly graded GRAVEL with silt
				GP-GC	Poorly graded GRAVEL with clay
	SAND AND SANDY SOILS MORE THAN 50% OF COARSE FRACTION PASSING ON NO. 4 SIEVE	GRAVEL WITH $\geq 15\%$ FINES		GM	Silty GRAVEL
				GC	Clayey GRAVEL
		SAND WITH $\leq 5\%$ FINES		SW	Well-graded SAND
				SP	Poorly graded SAND
FINE GRAINED SOILS CONTAINS MORE THAN 50% FINES	SILT AND CLAY	SAND WITH BETWEEN 5% AND 15% FINES		SW-SM	Well-graded SAND with silt
				SW-SC	Well-graded SAND with clay
				SP-SM	Poorly graded SAND with silt
				SP-SC	Poorly graded SAND with clay
		SAND WITH $\geq 15\%$ FINES		SM	Silty SAND
				SC	Clayey SAND
	LIQUID LIMIT LESS THAN 50	LIQUID LIMIT LESS THAN 50		ML	Inorganic SILT with low plasticity
				CL	Lean inorganic CLAY with low plasticity
				OL	Organic SILT with low plasticity
		LIQUID LIMIT GREATER THAN 50		MH	Elastic inorganic SILT with moderate to high plasticity
				CH	Fat inorganic CLAY with moderate to high plasticity
	HIGHLY ORGANIC SOILS			CH	Organic SILT or CLAY with moderate to high plasticity
				PT	PEAT soils with high organic contents

Fill Material

1. Is Fill Material Present Yes ☒ No

2. Percentage Fill (%) None

3. Fill Description (circle all that apply)

Asphalt Metal Plastic

Concrete Wood Glass

Igneous/Metamorphic Gravel ☒ N/A

Other _____

Is Staining Present Yes ☒ No

Color tan yel (10YR 6/6) mottled w/ y pale brown (10YR 7/4)

Odor _____

1. Odor Strength (circle one)

☒ None ☐ Slight ☐ Strong

2. Odor Description (circle one)

Organic Petroleum Chemical

☒ N/A Other _____

Moisture Condition (circle one)

☒ Dry ☐ Moist ☐ Wet

PG Signature [Signature]

PG Registration # 7735

Additional Comments NA

Location ID: DC-86R		Subarea: 5A		Date Started: 6-14-13		Date Completed:	
Client: DOE		Project Name/ID: SRP-55268-63376.1203.002.223.02291-66PH3-1B				Total Depth: DPT = 3.2 2nd DPT = 3.4 3rd DPT = 3.2	
Company Name: CDM SMITH		Drill Contractor/Driller: Strongarm				Depth Drilled into Bedrock: NA	
GPS collected? Yes or No		Drill Method: DPT				Sampling Method: DPT Sleeves	
Radiological Background: 8 = 13 μB = 83		Borehole diameter: 2.25				Geologist: David Rojas	
PID Background: 0.0		Depth to GW: NA				PG Review & No: Mike Hoffman 7735	
Radiological Equipment Used:							
<input checked="" type="checkbox"/> MicroR <input checked="" type="checkbox"/> Alpha/Beta <input checked="" type="checkbox"/> Pancake							

Depth (feet)	bgs	Recovery (feet)	PID (ppm)	Radiological (μ R/cpm)	Sample Name	Sample Time	USCS	Description of Materials
SAMPLE 0.0-0.5		0.5/10.5	0.0	13/95	SA-86R SA5A-SB 0.0-0.5	0955	SM	SILTY SAND, brn (7.5YR 5/4), fg, pg, sr to sa, quartz, dry, loose, few to some org (roots), ~30% silt
1			0.0	10/60			SM	SILTY SAND, brn (7.5YR 4/4) mottled w/ strong brn (7.5YR 4/6), fg, pg, sr to sa, quartz, dry, sli compacted, friable, few to some silty sand nodules med friable to friable, ~20% silt, tw and org (roots)
2		2.2/2.9	0.0	10/60			SP	SAND, strong brn (7.5YR 5/6) mottled w/ (7.5YR 4/6) brn (7.5YR 4/4) fg w/ tw and med qtz, pg, sr to sa, quartz, dry, sli to med compacted, med friable, ~5% silt
3			0.0	10/60				Refusals @ 3.2, 3.4, & 3.2

CDM Smith**BORING LOG AND SAMPLING RECORD**Page 1 of **1****ABBREVIATIONS:**

amt: amount	gr: grained	pg: poorly graded	t: trace	nr: no recovery
c: coarse	lt: light	rnd: rounded	v: very	
dk: dark	m: medium	sa: subangular	wg: well graded	
f: fine	mod: moderate	sr: subrounded	ϕ : diameter	bgs: below ground surface

SSFL Phase 3 – Field Sample Data Sheet

CDM Smith

FSDS Checked By John Halseth

Sample ID SL-869-SA5A-SB-0.0-0.5 Date/Time 6-14-13 / 0955

Matrix (circle one) <input checked="" type="radio"/> Soil <input type="radio"/> Sediment <input type="radio"/> Water	Start Depth <u>0.0</u> End Depth <u>0.5</u>	Depth Units (circle one) Inches <input checked="" type="radio"/> Feet
---	--	--

Check If Composite ☐ Collection Method (circle one) ☒ DPT ☐ Slide Hammer ☐ Hand Auger/Slide Hammer ☐ Trenching ☐ Sediment

QC Type (circle one) ☒ N ☐ FD ☐ FB ☐ RB Parent Sample ID NA

Field Geologist David Rojas

Sampler John Halseth

Analysis

Parameters	Method	Analyze?
Metals	EPA 6010	<input checked="" type="checkbox"/>
	EPA 6020	<input checked="" type="checkbox"/>
	EPA 7471 (Soil)	<input checked="" type="checkbox"/>
	EPA 7470 (Water)	<input type="checkbox"/>
Fluoride	EPA 300.0/9056	<input type="checkbox"/>
SVOCs	EPA 8270	<input type="checkbox"/>
TIC	EPA 8270	<input type="checkbox"/>
PAHs	EPA 8270 SIM	<input checked="" type="checkbox"/>
1,4 Dioxane	EPA 8270 SIM	<input type="checkbox"/>
Dioxins	EPA 1613	<input checked="" type="checkbox"/>
PCBs/PCTs	EPA 8082	<input type="checkbox"/>
Perchlorate	EPA 314.0/331	<input type="checkbox"/>
Perchlorate Confirmation	EPA 6850/6860	<input type="checkbox"/>
pH	EPA 9045 (Soil)	<input checked="" type="checkbox"/>
	EPA 9040 (Water)	<input type="checkbox"/>
Hexavalent Chromium	EPA 7196/7199	<input type="checkbox"/>
Herbicides	EPA 8151	<input type="checkbox"/>
Pesticides	EPA 8081	<input type="checkbox"/>

Parameters	Method	Analyze?
Encores	VOCs	<input type="checkbox"/>
	1,4 Dioxane	<input type="checkbox"/>
	TPH-GRO	<input type="checkbox"/>
	TPH-EFH	<input checked="" type="checkbox"/>
Sediment	Glycols	<input type="checkbox"/>
	Alcohols	<input type="checkbox"/>
	Terphenyls	<input type="checkbox"/>
	Nitrates	<input type="checkbox"/>
	Energetics	<input type="checkbox"/>
	Cyanide	<input type="checkbox"/>
	Formaldehyde	<input type="checkbox"/>
	NDMA	<input type="checkbox"/>
	NOAA Status and Trends, Krone et al.	<input type="checkbox"/>
	Methyl Mercury	<input type="checkbox"/>

2 DPT SS Sleeves & 1 4-oz jar

SSFL Phase 3 – Field Data Sample Sheet (Sample Descriptions)

Soil Classification (circle one)

MAJOR DIVISION			GROUP SYMBOL	LETTER SYMBOL	GROUP NAME
COARSE GRAINED SOILS CONTAINS MORE THAN 50% FINES	GRAVEL AND GRAVELLY SOILS MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	GRAVEL WITH ≤ 5% FINES		GW	Well-graded GRAVEL
				GP	Poorly graded GRAVEL
		GRAVEL WITH BETWEEN 5% AND 15% FINES		GW-GM	Well-graded GRAVEL with silt
				GW-GC	Well-graded GRAVEL with clay
				GP-GM	Poorly graded GRAVEL with silt
				GP-GC	Poorly graded GRAVEL with clay
	SAND AND SANDY SOILS MORE THAN 50% OF COARSE FRACTION PASSING ON NO. 4 SIEVE	GRAVEL WITH ≥ 10% FINES		GM	Silty GRAVEL
				GC	Clayey GRAVEL
		SAND WITH ≤ 5% FINES		SW	Well-graded SAND
				SP	Poorly graded SAND
		SAND WITH BETWEEN 5% AND 15% FINES		SW-SM	Well-graded SAND with silt
				SW-SC	Well-graded SAND with clay
				SP-SM	Poorly graded SAND with silt
				SP-SC	Poorly graded SAND with clay
FINE GRAINED SOILS CONTAINS MORE THAN 50% FINES	SILT AND CLAY	SAND WITH ≥ 15% FINES		SM	Silty SAND
				SC	Clayey SAND
		LIQUID LIMIT LESS THAN 50		ML	Inorganic SILT with low plasticity
				CL	Lean inorganic CLAY with low plasticity
				OL	Organic SILT with low plasticity
			LIQUID LIMIT GREATER THAN 50		MH
		CH		Fat inorganic CLAY with moderate to high plasticity	
		CH		Organic SILT or CLAY with moderate to high plasticity	
	HIGHLY ORGANIC SOILS				PT

Fill Material

1. Is Fill Material Present Yes ☒ No ☐
2. Percentage Fill (%) None
3. Fill Description (circle all that apply)
- | | | |
|----------------------------|--------------------------------------|---------|
| Asphalt | Metal | Plastic |
| Concrete | Wood | Glass |
| Igneous/Metamorphic Gravel | <input checked="" type="radio"/> N/A | |
| Other _____ | | |

Is Staining Present Yes ☒ No ☐

Color brn (7.5YR 5/4)

Odor

1. Odor Strength (circle one)

☒ None ☐ Slight ☐ Strong

2. Odor Description (circle one)

Organic ☐ Petroleum ☐ Chemical ☐

☒ N/A Other _____

Moisture Condition (circle one)

☒ Dry ☐ Moist ☐ Wet

PG Signature *Mike Hoffman*

PG Registration # 7735

Additional Comments NA

Location ID: DC-870		Subarea: 5A		Date Started: 6-14-13		Date Completed:	
Client: DOE				Project Name/#: SSFL-65258-63376-1203-002-223-02291-SSPH3 MB		Total Depth: 1st DPT = 3.0 2nd DPT = 3.0 3rd DPT = 2.8	
Company Name: CDM SMITH				Drill Contractor/Driller: Strongarm		Depth Drilled into Bedrock:	
GPS collected? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				Drill Method: DPT		NA	
Radiological Background: Y=13-80				Borehole diameter: 2.25		Sampling Method:	
PID Background: 0.0				Depth to GW: NA		DPT Sleeves	
Radiological Equipment Used:				PG Review & Non		Geologist: David Rojas	
<input checked="" type="checkbox"/> MicroR <input checked="" type="checkbox"/> Alpha/Beta <input checked="" type="checkbox"/> Pancake				Multistaff #7735			

Depth (feet)	bgs	Recovery (feet)	PID (ppm)	Radiological (uR/cpm)	Sample Name	Sample Time	USCS	Description of Materials
SAMPLE 00-0.5		0.5/0.5	0.0	13/90	SL-870	1040	SM	SILTY SAND, brn (7.5YR 5/4) fgm w/ trants med & coarse gm, pg, sr to sa, quartz, loose to sli compact, friable, dry, ~20% silt, few to some org (roots), to amt of sandstone gravel, med sized, sa, hard, well cemented, few org (roots)
1			0.0	10/54				
2			0.0	10/60			SP/SM	SAND w/ SILT, yel brn (10YR 5/4) mottled w/ dk yel brn (10YR 4/1) fgm, to amt med gm, pg, sr to sa, quartz, dry, med compact, med friable to sli hard, to amt org (roots) dry
3			0.0	10/72			SP/SM	SAND w/ SILT, yel brn (10YR 5/6) mottled w/ dk yel brn (10YR 4/1) fgm w/ to amt med gm, pg, sr to sa, quartz, dry, med to well compact, med friable to friable, sli laminated
Refusals @ 3.0, 3.0, & 2.8								

**CDM
Smith****BORING LOG AND SAMPLING RECORD**

Page 1 of 1

ABBREVIATIONS:

amt: amount	gr: grained	pg: poorly graded	t: trace	nr: no recovery
c: coarse	lt: light	rnd: rounded	v: very	
dk: dark	m: medium	sa: subangular	wg: well graded	
f: fine	mod: moderate	sr: subrounded	φ: diameter	bgs: below ground surface

SSFL Phase 3 – Field Sample Data Sheet

CDM Smith

FSDS Checked By John Nalseth

Sample ID SL-870-SA5A-SB-0.0-0.5

Date/Time 6-14-13 ¹⁶⁴⁰ ~~1035~~ 1100

Matrix (circle one)

☒ Soil ☐ Sediment ☐ Water

Start Depth 0.0

End Depth 0.5

Depth Units (circle one)

Inches ☐ Feet ☒

Check if Composite ☐

Collection Method (circle one)

☒ DPT ☐ Slide Hammer ☐ Hand Auger/Slide Hammer ☐ Trenching ☐ Sediment

QC Type (circle one)

☒ N ☐ FD ☐ FB ☐ RB

Parent Sample ID NA

Field Geologist David Rojas

Sampler John Nalseth

Analysis




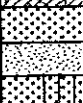




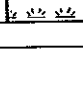
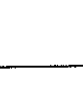
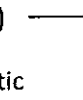
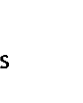


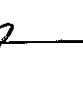
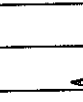
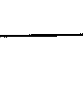


Parameters	Method	Analyze?
Metals	EPA 6010	<input checked="" type="checkbox"/>
	EPA 6020	<input checked="" type="checkbox"/>
	EPA 7471 (Soil)	<input checked="" type="checkbox"/>
	EPA 7470 (Water)	
Fluoride	EPA 300.0/9056	
SVOCs	EPA 8270	
TIC	EPA 8270	
PAHs	EPA 8270 SIM	<input checked="" type="checkbox"/>
1,4 Dioxane	EPA 8270 SIM	
Dioxins	EPA 1613	<input checked="" type="checkbox"/>
PCBs/PCTs	EPA 8082	
Perchlorate	EPA 314.0/331	
Perchlorate Confirmation	EPA 6850/6860	
pH	EPA 9045 (Soil)	<input checked="" type="checkbox"/>
	EPA 9040 (Water)	
Hexavalent Chromium	EPA 7196/7199	
Herbicides	EPA 8151	
Pesticides	EPA 8081	

Parameters	Method	Analyze?
Encores	VOCs	EPA 8260
	1,4 Dioxane	EPA 8260 SIM
	TPH-GRO	EPA 8015
	TPH-EFH	EPA 8015
	Glycols	EPA 8015
	Alcohols	EPA 8015
	Terphenyls	EPA 8015
	Nitrates	EPA 300.0/9056
	Energetics	EPA 8330
	Cyanide	EPA 9012
	Formaldehyde	EPA 8315
	NDMA	EPA 1625
Sediment	Organotin	NOAA Status and Trends, Krone et al.
	Methyl Mercury	EPA 1630

2 DPT SS Sleeves & 14-oz jar

SSFL Phase 3 – Field Data Sample Sheet (Sample Descriptions)

Soil Classification (circle one)

MAJOR DIVISION			GROUP SYMBOL	LETTER SYMBOL	GROUP NAME
COARSE GRAINED SOILS CONTAINS MORE THAN 50% FINES	GRAVEL AND GRAVELLY SOILS MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	GRAVEL WITH ≤ 5% FINES		GW	Well-graded GRAVEL
				GP	Poorly graded GRAVEL
		GRAVEL WITH BETWEEN 5% AND 15% FINES		GW-GM	Well-graded GRAVEL with silt
				GW-GC	Well-graded GRAVEL with clay
				GP-GM	Poorly graded GRAVEL with silt
				GP-GC	Poorly graded GRAVEL with clay
	SAND AND SANDY SOILS MORE THAN 50% OF COARSE FRACTION PASSING ON NO. 4 SIEVE	GRAVEL WITH ≥ 10% FINES		GM	Silty GRAVEL
				GC	Clayey GRAVEL
		SAND WITH ≤ 5% FINES		SW	Well-graded SAND
				SP	Poorly graded SAND
		SAND WITH BETWEEN 5% AND 15% FINES		SW-SM	Well-graded SAND with silt
				SW-SC	Well-graded SAND with clay
				SP-SM	Poorly graded SAND with silt
				SP-SC	Poorly graded SAND with clay
FINE GRAINED SOILS CONTAINS MORE THAN 50% FINES	SILT AND CLAY	LIQUID LIMIT LESS THAN 50		ML	Inorganic SILT with low plasticity
				CL	Lean inorganic CLAY with low plasticity
				OL	Organic SILT with low plasticity
		LIQUID LIMIT GREATER THAN 50		MH	Elastic inorganic SILT with moderate to high plasticity
				CH	Fat inorganic CLAY with moderate to high plasticity
				OH	Organic SILT or CLAY with moderate to high plasticity
HIGHLY ORGANIC SOILS				PT	PEAT soils with high organic contents

Fill Material

1. Is Fill Material Present Yes ☒ No ☐
2. Percentage Fill (%) None
3. Fill Description (circle all that apply)
- | | | |
|----------------------------|--------------------------------------|---------|
| Asphalt | Metal | Plastic |
| Concrete | Wood | Glass |
| Igneous/Metamorphic Gravel | <input checked="" type="radio"/> N/A | |
| Other _____ | | |

Is Staining Present Yes ☒ No ☐

Color brown (7.5YR 5/4)

Odor _____

1. Odor Strength (circle one)

☒ None ☐ Slight ☐ Strong

2. Odor Description (circle one)

Organic ☒ Petroleum ☐ Chemical ☐

☒ N/A Other _____

Moisture Condition (circle one)

☒ Dry ☐ Moist ☐ Wet

PG Signature [Signature]

PG Registration # 7735

Additional Comments NA

Location ID: DC-871		Subarea: 5A		Date Started: 6-6-13		Date Completed:	
Client: DOE		Project Name/ID: S8PL-65258-63376-1203-002-223-02231-66P413				Total Depth: 1st DPT=5.0 2nd DPT=4.9 3rd DPT=4.9	
Company Name: CDM SMITH		Drill Contractor/Driller: ST				Depth Drilled into Bedrock: NA	
GPS collected? (Yes or No)		Drill Method: DPT				Sampling Method: DPT sleeves	
Radiological Background: 8-14-08=79		Borehole diameter: 2.25				Geologist: David Rojas	
PID Background: 0.0		Depth to GW: NA					
Radiological Equipment Used:		PG Review & No.					
<input checked="" type="checkbox"/> MicroR <input checked="" type="checkbox"/> Alpha/Beta <input checked="" type="checkbox"/> Pancake		<i>Nick Hoffman, 7735</i>					

Depth (feet)	bgs	Recovery (feet)	PID (ppm)	Radiological (uR/cpm)	Sample Name	Sample Time	USCS	Description of Materials
0.0-0.5		0.5/0.5	0.0	14/96	SL-871 SA5A-SB 0.0-0.5	1030	SP	SAND, strong brn (7.5YR 5/6) mottled w/ brn (7.5YR 4/4), fgr, pg, sr to sa, quartz, dry, tr to few med grn quartz < 5% silt few silty sand nodules, sli consolidated ~0.5 brt friable, tr to few ant org (roots)
1			0.0	14/60	SL-1271 SA5A-SB 0.0-0.5	1045	SM	SILTY SAND, brn (7.5YR 5/4) fgr, pg, sr to sa, quartz, loose, dry, tr to few ant org (roots), tr to few ant silty sand nodules, sli consolidated, but friable ~30% silt
2		2.8/3.5	0.0	14/78				
3			0.0	14/96				SM SILTY SAND, strong brn (7.5YR 5/6) mottled w/ brn (7.5YR 4/4) and tr amounts of red (2.5YR 5/6) fgr pg sr to sa, quartz, dry, some silty sand nodules sli to med well consolidated - sr to sa in shape tr ant med qnsd, ~20% silt
4		1/1	0.0	14/84				
5			0.0	14/72				SP SAND w/ SILT, yel brn (10YR 5/6) mottled w/ yellow (10YR 7/6) and brn (10YR 4/3), fgr, pg, sr to sa quartz dry, loose tr ant silty sand nodules, sli consolidated, sr to sa

Refusals @ 5.0, 4.9, & 4.9'

CDM
Smith

BORING LOG AND SAMPLING RECORD

Page 1 of 1

ABBREVIATIONS:

amt: amount	gr: grained	pg: poorly graded	t: trace	nr: no recovery
c: coarse	lt: light	rnd: rounded	v: very	
dk: dark	m: medium	sa: subangular	wg: well graded	
f: fine	mod: moderate	sr: subrounded	φ: diameter	bgs: below ground surface

Location ID:			Subarea:		Date Started:		Date Completed:	
Project: SSFL					Geologist:		Total Depth:	
Depth (feet) bgs	Recovery (feet)	PID (ppm)	Radiological (μ R/cpm)	Sample Name	Sample Time	USCS	Description of Materials	
Empty table body for data entry								

SSFL Phase 3 – Field Sample Data Sheet

CDM Smith

FSDS Checked By J. C. K.

Sample ID SL-1271-SA5A-SB-0.0-0.5

Date/Time 6-6-13/1045

Matrix (circle one)

☒ Soil ☐ Sediment ☐ Water

Start Depth 0.0

End Depth 0.5

Depth Units (circle one)

Inches ☐ ☒ Feet

Check if Composite ☐

☒ DPT

Slide Hammer

Collection Method (circle one)

Hand Auger/Slide Hammer

Trenching

Sediment

QC Type (circle one)

N ☒ FD ☐ FB ☐ RB

Parent Sample ID SL-871-SA5A-SB-0.0-0.5 MS

Field Geologist

David Rojas

Sampler

Vidal Cortes

Analysis

Parameters	Method	Analyze?
Metals	EPA 6010	<input checked="" type="checkbox"/>
	EPA 6020	<input checked="" type="checkbox"/>
	EPA 7471 (Soil)	<input checked="" type="checkbox"/>
	EPA 7470 (Water)	
Fluoride	EPA 300.0/9056	
SVOCs	EPA 8270	
TIC	EPA 8270	
PAHs	EPA 8270 SIM	<input checked="" type="checkbox"/>
1,4 Dioxane	EPA 8270 SIM	
Dioxins	EPA 1613	<input checked="" type="checkbox"/>
PCBs/PCTs	EPA 8082	
Perchlorate	EPA 314.0/331	
Perchlorate Confirmation	EPA 6850/6860	
pH	EPA 9045 (Soil)	<input checked="" type="checkbox"/>
	EPA 9040 (Water)	
Hexavalent Chromium	EPA 7196/7199	
Herbicides	EPA 8151	
Pesticides	EPA 8081	

Parameters	Method	Analyze?
Encores	VOCs	EPA 8260
	1,4 Dioxane	EPA 8260 SIM
	TPH-GRO	EPA 8015
	TPH-EFH	EPA 8015 <input checked="" type="checkbox"/>
Sediment	Glycols	EPA 8015
	Alcohols	EPA 8015
	Terphenyls	EPA 8015
	Nitrates	EPA 300.0/9056
	Energetics	EPA 8330
	Cyanide	EPA 9012
	Formaldehyde	EPA 8315
	NDMA	EPA 1625
	Organotin	NOAA Status and Trends, Krone et al.
	Methyl Mercury	EPA 1630

2 DPT SS sleeves & 1 4oz jar

SSFL Phase 3 – Field Data Sample Sheet (Sample Descriptions)

Soil Classification (circle one)

MAJOR DIVISION			GROUP SYMBOL	LETTER SYMBOL	GROUP NAME	
COARSE GRAINED SOILS CONTAINS MORE THAN 50% FINES	GRAVEL AND GRAVELLY SOILS MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	GRAVEL WITH $\geq 5\%$ FINES		GW	Well-graded GRAVEL	
				GP	Poorly graded GRAVEL	
		GRAVEL WITH BETWEEN 5% AND 15% FINES		GW-GM	Well-graded GRAVEL with silt	
				GW-GC	Well-graded GRAVEL with clay	
				GP-GM	Poorly graded GRAVEL with silt	
				GP-GC	Poorly graded GRAVEL with clay	
	SAND AND SANDY SOILS MORE THAN 50% OF COARSE FRACTION PASSING ON NO. 4 SIEVE	GRAVEL WITH $\geq 10\%$ FINES		GM	Silty GRAVEL	
				GC	Clayey GRAVEL	
		SAND WITH $\geq 5\%$ FINES		SW	Well-graded SAND	
				SP	Poorly graded SAND	
		SAND WITH BETWEEN 5% AND 15% FINES		SW-SM	Well-graded SAND with silt	
				SW-SC	Well-graded SAND with clay	
				SP-SM	Poorly graded SAND with silt	
				SP-SC	Poorly graded SAND with clay	
SAND WITH $\geq 15\%$ FINES			SM	Silty SAND		
			SC	Clayey SAND		
	FINE GRAINED SOILS CONTAINS MORE THAN 50% FINES	SILT AND CLAY	LIQUID LIMIT LESS THAN 50		ML	Inorganic SILT with low plasticity
					CL	Lean inorganic CLAY with low plasticity
					OL	Organic SILT with low plasticity
			LIQUID LIMIT GREATER THAN 50		MH	Elastic inorganic SILT with moderate to high plasticity
				CH	Fat inorganic CLAY with moderate to high plasticity	
				OH	Organic SILT or CLAY with moderate to high plasticity	
HIGHLY ORGANIC SOILS				PT	PEAT soils with high organic contents	

Fill Material

1. Is Fill Material Present Yes ☒ No ☐
2. Percentage Fill (%) None
3. Fill Description (circle all that apply)
- | | | |
|----------------------------|--------------------------------------|---------|
| Asphalt | Metal | Plastic |
| Concrete | Wood | Glass |
| Igneous/Metamorphic Gravel | <input checked="" type="radio"/> N/A | |
| Other _____ | | |

Is Staining Present Yes ☒ No ☐

Color Strong brown (7.5YR 5/6) mottled 1/6 in (7.5YR 4/4)

Odor

1. Odor Strength (circle one)

☒ None ☐ Slight ☐ Strong

2. Odor Description (circle one)

Organic ☐ Petroleum ☐ Chemical ☐

☒ N/A ☐ Other _____

Moisture Condition (circle one)

☒ Dry ☐ Moist ☐ Wet

PG Signature _____ PG Registration # _____

Additional Comments _____

SSFL Phase 3 – Field Sample Data Sheet

CDM Smith

FSDS Checked By V. G. F.

Sample ID SL-871-SA5A-SB-0.0-0.5MS Date/Time 6-6-13/1030

Matrix (circle one)
☒ Soil ☐ Sediment ☐ Water

Start Depth 0.0

End Depth 0.5

Depth Units (circle one)
☐ Inches ☒ Feet

Check if Composite ☐

Collection Method (circle one)
☒ DPT ☐ Slide Hammer ☐ Hand Auger/Slide Hammer ☐ Trenching ☐ Sediment

QC Type (circle one)
☒ N ☐ FD ☐ FB ☐ RB

Parent Sample ID NA

Field Geologist David Rojas

Sampler Vidal Cortes

Analysis

Parameters	Method	Analyze?
Metals	EPA 6010	<input checked="" type="checkbox"/>
	EPA 6020	<input checked="" type="checkbox"/>
	EPA 7471 (Soil)	<input checked="" type="checkbox"/>
	EPA 7470 (Water)	
Fluoride	EPA 300.0/9056	
SVOCs	EPA 8270	
TIC	EPA 8270	
PAHs	EPA 8270 SIM	<input checked="" type="checkbox"/>
1,4 Dioxane	EPA 8270 SIM	
Dioxins	EPA 1613	<input checked="" type="checkbox"/>
PCBs/PCTs	EPA 8082	
Perchlorate	EPA 314.0/331	
Perchlorate Confirmation	EPA 6850/6860	
pH	EPA 9045 (Soil)	<input checked="" type="checkbox"/>
	EPA 9040 (Water)	
Hexavalent Chromium	EPA 7196/7199	
Herbicides	EPA 8151	
Pesticides	EPA 8081	

Parameters	Method	Analyze?
Encores	VOCs	EPA 8260
	1,4 Dioxane	EPA 8260 SIM
	TPH-GRO	EPA 8015
	TPH-EFH	EPA 8015
Sediment	Glycols	EPA 8015
	Alcohols	EPA 8015
	Terphenyls	EPA 8015
	Nitrates	EPA 300.0/9056
	Energetics	EPA 8330
	Cyanide	EPA 9012
	Formaldehyde	EPA 8315
	NDMA	EPA 1625
	Organotin	NOAA Status and Trends, Krone et al.
	Methyl Mercury	EPA 1630

6 DPT SS sleeves & 1 9-oz jar

SSFL Phase 3 – Field Data Sample Sheet (Sample Descriptions)

Soil Classification (circle one)

MAJOR DIVISION			GROUP SYMBOL	LETTER SYMBOL	GROUP NAME	
COARSE GRAINED SOILS CONTAINS MORE THAN 50% FINES	GRAVEL AND GRAVELLY SOILS MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	GRAVEL WITH * 5% FINES		GW	Well-graded GRAVEL	
		GRAVEL WITH BETWEEN 5% AND 15% FINES		GP	Poorly graded GRAVEL	
				GW-GM	Well-graded GRAVEL with silt	
				GW-GC	Well-graded GRAVEL with clay	
				GP-GM	Poorly graded GRAVEL with silt	
			GP-GC	Poorly graded GRAVEL with clay		
	SAND AND SANDY SOILS MORE THAN 50% OF COARSE FRACTION PASSING ON NO. 4 SIEVE	GRAVEL WITH ≥ 10% FINE		GM	Silty GRAVEL	
		SAND WITH * 5% FINES		GC	Clayey GRAVEL	
				SW	Well-graded SAND	
				SP	Poorly graded SAND	
			SAND WITH BETWEEN 5% AND 15% FINES		SW-SM	Well-graded SAND with silt
					SW-SC	Well-graded SAND with clay
					SP-SM	Poorly graded SAND with silt
					SP-SC	Poorly graded SAND with clay
			SAND WITH ≥ 15% FINES		SM	Silty SAND
			SC	Clayey SAND		
FINE GRAINED SOILS CONTAINS MORE THAN 50% FINES	SILT AND CLAY	LIQUID LIMIT LESS THAN 50		ML	Inorganic SILT with low plasticity	
				CL	Lean inorganic CLAY with low plasticity	
				OL	Organic SILT with low plasticity	
		LIQUID LIMIT GREATER THAN 50		MH	Elastic inorganic SILT with moderate to high plasticity	
				CH	Fat inorganic CLAY with moderate to high plasticity	
				CH	Organic SILT or CLAY with moderate to high plasticity	
			HIGHLY ORGANIC SOILS			PT

Fill Material

1. Is Fill Material Present Yes ☒ No

2. Percentage Fill (%) None

3. Fill Description (circle all that apply)

Asphalt Metal Plastic

Concrete Wood Glass

Igneous/Metamorphic Gravel ☒ N/A

Other _____

Is Staining Present Yes ☒ No

Color Strong brown (7.5YR 5/6) mottled w/ brown (7.5YR 4/4)

Odor

1. Odor Strength (circle one)

☒ None Slight Strong

2. Odor Description (circle one)

Organic Petroleum Chemical

☒ N/A Other _____

Moisture Condition (circle one)

☒ Dry Moist Wet

PG Signature Nick Hoffman

PG Registration # 7735

Additional Comments _____

Location ID: DG-872		Subarea: 5A		Date Started: 6-6-13		Date Completed:	
Client: DOE		Project Name/ID: SSFL-66258-63376-1203-002-223-02231-SSPH3				Total Depth: 1st DPT=4.6	
Company Name: CDM SMITH		Drill Contractor/Driller: Strongarm		Drill Method: DPT		2nd DPT=4.1	
GPS collected? <input checked="" type="checkbox"/> Yes or No		Borehole diameter: 2.25		Depth Drilled into Bedrock: 3.2		4th DPT=3.2	
Radiological Background: 8=14 α=83		Depth to GW:		Sampling Method: DPT Sleeves		5th DPT=3.3	
PID Background: 0.0		Radiological Equipment Used:		Geologist: David Rojas			
<input checked="" type="checkbox"/> MicroR <input checked="" type="checkbox"/> Alpha/Beta <input checked="" type="checkbox"/> Pancake		PA Review & No					

Depth (feet)	bgs	Recovery (feet)	PID (ppm)	Radiological (uR/cpm)	Sample Name	Sample Time	USCS	Description of Materials
0.0-0.5		0.5	0.0	14/87	SL-872	1255	SP	SAND with SILT, brn (7.5YR 5/4) mottled w/lt brn (7.5YR 6/4) fgn, pg, sr to sa quartz, loose, chpy; few to some silty sand nodules, sr to sa, mod cemented, mod friable to ant org (roots)
0.5-1.0		0.5	0.0	10/66	SA5A-SB			
1.0-1.5		3.5/4	0.0	10/42				
1.5-2.0			0.0	10/60				
2.0-2.5			0.0	10/96	SL-872	1320	SP	SAND strong brn (7.5YR 5/6) mottled w/lt brn (7.5YR 6/4) and yel red (5YR 5/6), fgn w/ few mod gn & tr coarse; gm, pg, sr to sa, quartz, chpy, tr ant org (roots) woody material w/back; some silty sand nodules mod to mod well consolidated, mod to pale to hard
2.5-3.0			0.0	10/78	SA5A-SB			
3.0-3.5			0.0	10/80			SP	SAND lt yel brn (10YR 6/4) mottled w/yel brn (10YR 5/6), dk yel brn & v pale brn (10YR 7/4) fgn, pg, sr to sa quartz, mod loose, chpy; some weathered sdstrn gravel, mod well cemented, sa to angular, fine sized

CDM Smith

BORING LOG AND SAMPLING RECORD

Page 1 of ____

ABBREVIATIONS:

amt: amount	gr: grained	pg: poorly graded	t: trace	nr: no recovery
c: coarse	lt: light	rnd: rounded	v: very	
dk: dark	m: medium	sa: subangular	wg: well graded	
f: fine	mod: moderate	sr: subrounded	φ: diameter	bgs: below ground surface

SSFL Phase 3 – Field Sample Data Sheet

CDM Smith

FSDS Checked By V. C. Jr.

Sample ID SL-872-SA5A-SB-0.0-0.5 Date/Time 6-6-13/1255

Matrix (circle one) Soil Sediment Water	Start Depth <u>0.0</u> End Depth <u>0.5</u>	Depth Units (circle one) Inches <u>Feet</u>
--	--	--

Check If Composite ☐ Collection Method (circle one) DPT Slide Hammer Hand Auger/Slide Hammer Trenching Sediment

QC Type (circle one) N FD FB RB Parent Sample ID NA

Field Geologist David Rojas

Sampler Vidal Cortes

Analysis

Parameters	Method	Analyze?
Metals	EPA 6010	X
	EPA 6020	X
	EPA 7471 (Soil)	X
	EPA 7470 (Water)	
Fluoride	EPA 300.0/9056	
SVOCs	EPA 8270	
TIC	EPA 8270	
PAHs	EPA 8270 SIM	X
1,4 Dioxane	EPA 8270 SIM	
Dioxins	EPA 1613	X
PCBs/PCTs	EPA 8082	
Perchlorate	EPA 314.0/331	
Perchlorate Confirmation	EPA 6850/6860	
pH	EPA 9045 (Soil) EPA 9040 (Water)	X
Hexavalent Chromium	EPA 7196/7199	
Herbicides	EPA 8151	
Pesticides	EPA 8081	

Parameters	Method	Analyze?
Encores	VOCs	EPA 8260
	1,4 Dioxane	EPA 8260 SIM
	TPH-GRO	EPA 8015
	TPH-EFH	EPA 8015 X
Sediment	Glycols	EPA 8015
	Alcohols	EPA 8015
	Terphenyls	EPA 8015
	Nitrates	EPA 300.0/9056
	Energetics	EPA 8330
	Cyanide	EPA 9012
	Formaldehyde	EPA 8315
	NDMA	EPA 1625
	Organotin	NOAA Status and Trends, Krone et al.
	Methyl Mercury	EPA 1630

2 DPT SS sleeves & 1 4oz jar

SSFL Phase 3 – Field Data Sample Sheet (Sample Descriptions)

Soil Classification (circle one)

MAJOR DIVISION			GROUP SYMBOL	LETTER SYMBOL	GROUP NAME
COARSE GRAINED SOILS CONTAINS MORE THAN 50% FINES	GRAVEL AND GRAVELLY SOILS MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	GRAVEL WITH ≤ 5% FINES		GW	Well-graded GRAVEL
				GP	Poorly graded GRAVEL
		GRAVEL WITH BETWEEN 5% AND 15% FINES		GW-GM	Well-graded GRAVEL with silt
				GW-GC	Well-graded GRAVEL with clay
				GP-GM	Poorly graded GRAVEL with silt
				GP-GC	Poorly graded GRAVEL with clay
	SAND AND SANDY SOILS MORE THAN 50% OF COARSE FRACTION PASSING ON NO. 4 SIEVE	GRAVEL WITH ≥ 10% FINES		GM	Silty GRAVEL
				GC	Clayey GRAVEL
		SAND WITH ≤ 5% FINES		SW	Well-graded SAND
				SP	Poorly graded SAND
		SAND WITH BETWEEN 5% AND 15% FINES		SW-SM	Well-graded SAND with silt
				SW-SC	Well-graded SAND with clay
				SP-SM	Poorly graded SAND with silt
FINE GRAINED SOILS CONTAINS MORE THAN 50% FINES	SILT AND CLAY	SAND WITH ≥ 15% FINES		SP-SC	Poorly graded SAND with clay
				SM	Silty SAND
				SC	Clayey SAND
		LIQUID LIMIT LESS THAN 50		ML	Inorganic SILT with low plasticity
				CL	Lean inorganic CLAY with low plasticity
		LIQUID LIMIT GREATER THAN 50		OL	Organic SILT with low plasticity
				MH	Elastic inorganic SILT with moderate to high plasticity
				CH	Fat inorganic CLAY with moderate to high plasticity
				CH	Organic SILT or CLAY with moderate to high plasticity
				PT	PEAT soils with high organic contents
HIGHLY ORGANIC SOILS					

Fill Material

1. Is Fill Material Present Yes ☒ No

2. Percentage Fill (%) None

3. Fill Description (circle all that apply)

Asphalt Metal Plastic

Concrete Wood Glass

Igneous/Metamorphic Gravel ☒ N/A

Other _____

Is Staining Present Yes ☒ No

Color brn (7.5YR 5/4) mottled w/lt brn (7.5YR 6/4)

Odor

1. Odor Strength (circle one)

☒ None ☐ Slight ☐ Strong

2. Odor Description (circle one)

Organic Petroleum Chemical

☒ N/A Other _____

Moisture Condition (circle one)

☒ Dry ☐ Moist ☐ Wet

PG Signature [Signature]

PG Registration # 7735

Additional Comments _____

SSFL Phase 3 – Field Sample Data Sheet

CDM Smith

FSDS Checked By N. Gtz

Sample ID SL-872-SA5A-SB-2.5-3.5 Date/Time 6-6-13 / 1320

Matrix (circle one)
☒ Soil Sediment Water

Start Depth 2.5
 End Depth 3.5

Depth Units (circle one)
 Inches ☒ Feet

Check if Composite ☐

Collection Method (circle one)
☒ DPT Slide Hammer Hand Auger/Slide Hammer Trenching Sediment

QC Type (circle one)
☒ N FD FB RB

Parent Sample ID NA

Field Geologist David Rojas

Sampler Vidal Cortes

Analysis

Parameters	Method	Analyze?
Metals	EPA 6010	<input checked="" type="checkbox"/>
	EPA 6020	<input checked="" type="checkbox"/>
	EPA 7471 (Soil)	<input checked="" type="checkbox"/>
	EPA 7470 (Water)	
Fluoride	EPA 300.0/9056	
SVOCs	EPA 8270	
TIC	EPA 8270	
PAHs	EPA 8270 SIM	<input checked="" type="checkbox"/>
1,4 Dioxane	EPA 8270 SIM	
Dioxins	EPA 1613	<input checked="" type="checkbox"/>
PCBs/PCTs	EPA 8082	
Perchlorate	EPA 314.0/331	
Perchlorate Confirmation	EPA 6850/6860	
pH	EPA 9045 (Soil)	<input checked="" type="checkbox"/>
	EPA 9040 (Water)	
Hexavalent Chromium	EPA 7196/7199	
Herbicides	EPA 8151	
Pesticides	EPA 8081	

Parameters	Method	Analyze?
Encores	VOCs	EPA 8260
	1,4 Dioxane	EPA 8260 SIM
	TPH-GRO	EPA 8015
	TPH-EFH	EPA 8015
	Glycols	EPA 8015
	Alcohols	EPA 8015
	Terphenyls	EPA 8015
	Nitrates	EPA 300.0/9056
	Energetics	EPA 8330
	Cyanide	EPA 9012
Sediment	Formaldehyde	EPA 8315
	NDMA	EPA 1625
	Organotin	NOAA Status and Trends, Krone et al.
	Methyl Mercury	EPA 1630

2 Horjan & 2 Encores

SSFL Phase 3 – Field Data Sample Sheet (Sample Descriptions)

Soil Classification (circle one)

MAJOR DIVISION			GROUP SYMBOL	LETTER SYMBOL	GROUP NAME
COARSE GRAINED SOILS CONTAINS MORE THAN 50% FINES	GRAVEL AND GRAVELLY SOILS MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	GRAVEL WITH $\leq 5\%$ FINES		GW	Well-graded GRAVEL
				GP	Poorly graded GRAVEL
		GRAVEL WITH BETWEEN 5% AND 15% FINES		GW-GM	Well-graded GRAVEL with silt
				GW-GC	Well-graded GRAVEL with clay
				GP-GM	Poorly graded GRAVEL with silt
				GP-GC	Poorly graded GRAVEL with clay
	SAND AND SANDY SOILS MORE THAN 50% OF COARSE FRACTION PASSING ON NO. 4 SIEVE	SAND WITH $\leq 5\%$ FINES		GM	Silty GRAVEL
				GC	Clayey GRAVEL
		SAND WITH BETWEEN 5% AND 15% FINES		SW	Well-graded SAND
				SP	Poorly graded SAND
				SW-SM	Well-graded SAND with silt
				SW-SC	Well-graded SAND with clay
FINE GRAINED SOILS CONTAINS MORE THAN 50% FINES	SILT AND CLAY	LIQUID LIMIT LESS THAN 50		ML	Inorganic SILT with low plasticity
				CL	Lean inorganic CLAY with low plasticity
				OL	Organic SILT with low plasticity
				MH	Elastic inorganic SILT with moderate to high plasticity
		LIQUID LIMIT GREATER THAN 50		CH	Fat inorganic CLAY with moderate to high plasticity
				OH	Organic SILT or CLAY with moderate to high plasticity
				PT	PEAT soils with high organic contents
				PT	PEAT soils with high organic contents

Fill Material

1. Is Fill Material Present ☒ Yes ☐ No
2. Percentage Fill (%) trace (1%)
3. Fill Description (circle all that apply)
- | | | |
|----------------------------|---------------------------------------|---------|
| Asphalt | Metal | Plastic |
| Concrete | <input checked="" type="radio"/> Wood | Glass |
| Igneous/Metamorphic Gravel | N/A | |
| Other _____ | | |

Is Staining Present Yes ☐ No ☒

Color 1/4" (6.5YR 5/6) mottled w/ 1/4" (6.5YR 5/6)

Odor Strong (7.5YR 5/6) mottled w/ 1/4" (6.5YR 5/6)

1. Odor Strength (circle one)

☒ None ☐ Slight ☐ Strong

2. Odor Description (circle one)

Organic ☐ Petroleum ☐ Chemical ☐

☒ N/A Other _____

Moisture Condition (circle one)

☒ Dry ☐ Moist ☐ Wet

PG Signature [Signature]

PG Registration # 7735

Additional Comments _____

Location ID: DG-873		Subarea: 5A		Date Started: 6-6-13		Date Completed:	
Client: DOE		Project Name/ID: SSFL-66268-63376-1203-002-223-02234-68PH3				Total Depth: 1st DPT = 2.9 2nd DPT = 2.7 3rd DPT = 2.7	
Company Name: CDM SMITH		Drill Contractor/Driller: Strongarm				Depth Drilled into Bedrock: NA	
GPS collected? <input checked="" type="checkbox"/> Yes or No		Drill Method: DPT				Borehole diameter: 2.25"	
Radiological Background: 8=12-93		Depth to GW: NA				Sampling Method: DPT sleeves	
PID Background: 0.0		PG Review & No: Null Johnson 7735				Geologist: David Rojas	
Radiological Equipment Used:							
<input checked="" type="checkbox"/> MicroR <input checked="" type="checkbox"/> Alpha/Beta <input checked="" type="checkbox"/> Pancake							
Depth (feet)	bgs	Recovery (feet)	PID (ppm)	Radiological (uR/cpm)	Sample Name	Sample Time	USCS
Description of Materials							
SAMPLE 0.0-0.5		0.5 0.5	0.0 0.0	10/97 10/86	SL-873 SASA-SB 0.0-0.5	1415	SP
1		2.4 2.4	0.0	10/60			
2			0.0	10/66			SP
			0.0	10/90			
SAND, yel brn (10YR 5/4) mottled w/ brn yel (10YR 6/6) and tr yel red (5YR 5/8) fgnw, pg, sr, sa, quartz, mod well consolidated, sli friable to hard, dry, tr to faw amt med & coarse grw, <5% silt							
SAND, v pale brn (10YR 7/4) mottled w/ olive brn (2.5Y 4/4) and lt brn gray (2.5Y 4/2) & strong brown (7.5YR 5/3) fgnw, pg, sr to sa, quartz, dry, mod well to well consolidated becoming more consolidated w/ depth, sli friable to hard, dry <5% silt							

**CDM
Smith****BORING LOG AND SAMPLING RECORD**

Page 1 of ____

ABBREVIATIONS:

amt: amount	gr: grained	pg: poorly graded	t: trace	nr: no recovery
c: coarse	lt: light	rnd: rounded	v: very	
dk: dark	m: medium	sa: subangular	wg: well graded	
f: fine	mod: moderate	sr: subrounded	φ: diameter	bgs: below ground surface

SSFL Phase 3 – Field Sample Data Sheet

CDM Smith

FSDS Checked By V. C. [Signature]

Sample ID SL-873-SA5A-SB-0.0-0.5 Date/Time 6-6-13 / 1415

Matrix (circle one)
☒ Soil ☐ Sediment ☐ Water

Start Depth 0.0
 End Depth 0.5

Depth Units (circle one)
 Inches ☒ Feet

Check if Composite ☐

Collection Method (circle one)
☒ DPT ☐ Slide Hammer ☐ Hand Auger/Slide Hammer ☐ Trenching ☐ Sediment

QC Type (circle one)
☒ N ☐ FD ☐ FB ☐ RB

Parent Sample ID NA

Field Geologist David Rojas

Sampler Vidal Cortes

Analysis

Parameters	Method	Analyze?
Metals	EPA 6010	<input checked="" type="checkbox"/>
	EPA 6020	<input checked="" type="checkbox"/>
	EPA 7471 (Soil)	<input checked="" type="checkbox"/>
	EPA 7470 (Water)	
Fluoride	EPA 300.0/9056	
SVOCs	EPA 8270	
TIC	EPA 8270	
PAHs	EPA 8270 SIM	<input checked="" type="checkbox"/>
1,4 Dioxane	EPA 8270 SIM	
Dioxins	EPA 1613	<input checked="" type="checkbox"/>
PCBs/PCTs	EPA 8082	
Perchlorate	EPA 314.0/331	
Perchlorate Confirmation	EPA 6850/6860	
pH	EPA 9045 (Soil)	<input checked="" type="checkbox"/>
	EPA 9040 (Water)	
Hexavalent Chromium	EPA 7196/7199	
Herbicides	EPA 8151	
Pesticides	EPA 8081	

Parameters	Method	Analyze?
Encores	VOCs	EPA 8260
	1,4 Dioxane	EPA 8260 SIM
	TPH-GRO	EPA 8015
	TPH-EFH	EPA 8015
	Glycols	EPA 8015
	Alcohols	EPA 8015
	Terphenyls	EPA 8015
	Nitrates	EPA 300.0/9056
	Energetics	EPA 8330
	Cyanide	EPA 9012
Sediment	Formaldehyde	EPA 8315
	NDMA	EPA 1625
	Organotin	NOAA Status and Trends, Krone et al.
	Methyl Mercury	EPA 1630

2 DPT SS Sleeves & 1 4oz jar

SSFL Phase 3 – Field Data Sample Sheet (Sample Descriptions)

Soil Classification (circle one)

MAJOR DIVISION			GROUP SYMBOL	LETTER SYMBOL	GROUP NAME
COARSE GRAINED SOILS CONTAINS MORE THAN 50% FINES	GRAVEL AND GRAVELLY SOILS MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	GRAVEL WITH $\leq 5\%$ FINES		GW	Well-graded GRAVEL
				GP	Poorly graded GRAVEL
		GRAVEL WITH BETWEEN 5% AND 15% FINES		GW-GM	Well-graded GRAVEL with silt
				GW-GC	Well-graded GRAVEL with clay
				GP-GM	Poorly graded GRAVEL with silt
				GP-GC	Poorly graded GRAVEL with clay
	SAND AND SANDY SOILS MORE THAN 50% OF COARSE FRACTION PASSING ON NO. 4 SIEVE	GRAVEL WITH $\geq 10\%$ FINES		GM	Silty GRAVEL
				GC	Clayey GRAVEL
		SAND WITH $\leq 5\%$ FINES		SW	Well-graded SAND
				SP	Poorly graded SAND
		SAND WITH BETWEEN 5% AND 15% FINES		SW-SM	Well-graded SAND with silt
				SW-SC	Well-graded SAND with clay
				SP-SM	Poorly graded SAND with silt
				SP-SC	Poorly graded SAND with clay
		SAND WITH $\geq 15\%$ FINES		SM	Silty SAND
				SC	Clayey SAND
FINE GRAINED SOILS CONTAINS MORE THAN 50% FINES	SILT AND CLAY	LIQUID LIMIT LESS THAN 50		ML	Inorganic SILT with low plasticity
				CL	Lean inorganic CLAY with low plasticity
				OL	Organic SILT with low plasticity
		LIQUID LIMIT GREATER THAN 50		MH	Elastic inorganic SILT with moderate to high plasticity
				CH	Fat inorganic CLAY with moderate to high plasticity
				CH	Organic SILT or CLAY with moderate to high plasticity
			HIGHLY ORGANIC SOILS		

Fill Material

1. Is Fill Material Present Yes ☒ No ☐
2. Percentage Fill (%) None
3. Fill Description (circle all that apply)
- Asphalt Metal Plastic
- Concrete Wood Glass
- Igneous/Metamorphic Gravel ☒ N/A
- Other _____

Is Staining Present Yes ☒ No ☐

Color gel brn (10YR 5/4) mottled w/ brn gel (10YR 6/6) & yel red (5YR 5/8)

Odor

1. Odor Strength (circle one)

☒ None Slight Strong

2. Odor Description (circle one)

Organic Petroleum Chemical

☒ N/A Other _____

Moisture Condition (circle one)

☒ Dry Moist Wet

PG Signature Mike [Signature]

PG Registration # 7735

Additional Comments _____

Appendix F

Chain of Custodies

Sample Delivery Group

PH041

13013 1393100 7023185-89

**2425 New Holland Pike
Lancaster, PA 17601**

[illegible]

Sample Delivery Group

PH042

SSFL Phase 3 Chain of Custody

Lancaster, PA 17601

Special Instructions:

Sampler: 

[illegible]

SSFL Phase 3 Chain of Custody

Contact Phone: (818)466-8007

Lab Address

**2425 New Holland Pike
Lancaster, PA 17601**

Special Instructions:

Sampler:

[illegible]

Sample Delivery Group

PH043

CCCF#13013 Cp*1393848

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 5/30/2013

CarrierName: FedEx

Airbill No: 799885359473

Contact Name: Pam Hartman

Contact Phone: (818)466-8007

COC No.:

Cooler #:

146

Lab Phone:

Lab Address

20130530-02

2

lanraster

717-556-7250

2425 New Holland Pike

Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Other Analysis/Notes
SL-835-SA5A-SB-0.0-0.5	5/30/13 10:55	SO	None	1 - SS-Sleeve	10 day	
SL-836-SA5A-SB-0.0-0.5	5/30/13 10:20	SO	None	2 - SS-Sleeve	10 day	
SL-836-SA5A-SB-0.0-0.5	5/30/13 10:20	SO	None	1 - 4 oz glass	10 day	
SL-836-SA5A-SB-2.5-3.5	5/30/13 10:30	SO	None	2 - 16 oz glass	10 day	
SL-836-SA5A-SB-2.5-3.5	5/30/13 10:30	SO	None	1 - 4 oz glass	10 day	
SL-837-SA5A-SB-0.0-0.5	5/30/13 08:55	SO	None	2 - SS-Sleeve	10 day	
SL-837-SA5A-SB-0.0-0.5	5/30/13 08:55	SO	None	1 - 4 oz glass	10 day	
SL-837-SA5A-SB-4.5-5.5MS	5/30/13 09:10	SO	None	6 - 16 oz glass	10 day	
SL-837-SA5A-SB-4.5-5.5MS	5/30/13 09:10	SO	None	1 - 8 oz glass	10 day	
SL-1237-SA5A-SB-4.5-5.5	5/30/13 09:20	SO	None	2 - 16 oz glass	10 day	
SL-1237-SA5A-SB-4.5-5.5	5/30/13 09:20	SO	None	1 - 4 oz glass	10 day	

Sampler:

Special Instructions:

[illegible]

Acc# 13013 Cp# 1393848 Sample# 7076730-46

SSFL Phase 3 Chain of Custody

CDM Smith

Date Shipped: 5/30/2013

Carrier Name: FedEx

Airbill No: 799885359473

Contact Name: Pam Hartman

Contact Phone: (818)466-8007

COC No: 20130530-03

Cooler #: 3

Lab: Lancaster

Lab Phone: 717-556-7259

Lab Address: 2425 New Holland Pike
Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Other Analysis/Notes
TB-053013	5/30/13 08:00	WQ	HCl	3 - 40 mL Vial	10 day	
SL-836-SA5A-SB-2.5-3.5	5/30/13 10:30	SO	None	2 - Encore	10 day	
SL-837-SA5A-SB-4.5-5.5MS	5/30/13 09:10	SO	None	6 - Encore	10 day	MS/MSD
SL-1237-SA5A-SB-4.5-5.5	5/30/13 09:20	SO	None	2 - Encore	10 day	
SL-819-SA5A-SB-0.0-0.5	5/30/13 14:30	SO	None	2 - SS-Sleeve	10 day	
SL-819-SA5A-SB-0.0-0.5	5/30/13 14:30	SO	None	1 - 4 oz glass	10 day	
SL-819-SA5A-SB-6.5-7.5	5/30/13 14:45	SO	None	2 - 16 oz glass	10 day	
SL-819-SA5A-SB-6.5-7.5	5/30/13 14:45	SO	None	1 - 4 oz glass	10 day	
SL-819-SA5A-SB-6.5-7.5	5/30/13 14:45	SO	None	2 - Encore	10 day	
SL-833-SA5A-SB-0.0-0.5	5/30/13 13:45	SO	None	2 - SS-Sleeve	10 day	
SL-833-SA5A-SB-0.0-0.5	5/30/13 13:45	SO	None	1 - 4 oz glass	10 day	
SL-833-SA5A-SB-2.5-3.5	5/30/13 13:55	SO	None	2 - 16 oz glass	10 day	
SL-833-SA5A-SB-2.5-3.5	5/30/13 13:55	SO	None	1 - 4 oz glass	10 day	
SL-833-SA5A-SB-2.5-3.5	5/30/13 13:55	SO	None	2 - Encore	10 day	
SL-834-SA5A-SB-0.0-0.5	5/30/13 13:00	SO	None	2 - SS-Sleeve	10 day	
SL-834-SA5A-SB-0.0-0.5	5/30/13 13:00	SO	None	1 - 4 oz glass	10 day	
SL-834-SA5A-SB-2.4-3.4	5/30/13 13:10	SO	None	2 - 16 oz glass	10 day	
SL-834-SA5A-SB-2.4-3.4	5/30/13 13:10	SO	None	1 - 4 oz glass	10 day	
SL-834-SA5A-SB-2.4-3.4	5/30/13 13:10	SO	None	2 - Encore	10 day	

COC Rev 2

Rec'd By: Pat yf 5/31/2013 09:50

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COC: 20130530-03, Page 102 of 2

SSFL Phase 3 Chain of Custody

**2425 New Holland Pike
Lancaster, PA 17601**

PH043 Page 115 of 2684
Page 103 of 105

Sample Delivery Group

PH044

CDM Smith
Date Shipped: 5/31/2013
Carrier Name: FedEx
Airbill No: 799897145475

SSFL Phase 3 Chain of Custody

COC No: 20130531-01
Cooler #: 1
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike
Lancaster, PA 17601

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

A-13013
G-1394124
S-7078551-59

Sample	Date/Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Other Analysis/Notes
SL-815-SASA-SB-0.0-0.5	5/31/13 08:35	SO	None	2 - SS-Sleeve	10 day	
SL-815-SASA-SB-0.0-0.5	5/31/13 08:35	SO	None	1 - 4 oz glass	10 day	
SL-838-SASA-SB-0.0-0.5MS	5/31/13 09:35	SO	None	6 - SS-Sleeve	10 day	MS/MSD
SL-838-SASA-SB-0.0-0.5MS	5/31/13 09:35	SO	None	1 - 8 oz glass	10 day	MS/MSD
SL-1238-SASA-SB-0.0-0.5	5/31/13 09:45	SO	None	2 - SS-Sleeve	10 day	
SL-1238-SASA-SB-0.0-0.5	5/31/13 09:45	SO	None	1 - 4 oz glass	10 day	
SL-840-SASA-SB-0.0-0.5	5/31/13 10:45	SO	None	2 - SS-Sleeve	10 day	
SL-840-SASA-SB-0.0-0.5	5/31/13 10:45	SO	None	1 - 4 oz glass	10 day	
SL-839-SASA-SB-0.0-0.5	5/31/13 13:15	SO	None	2 - SS-Sleeve	10 day	
SL-839-SASA-SB-0.0-0.5	5/31/13 13:15	SO	None	1 - 4 oz glass	10 day	
SL-841-SASA-SB-0.0-0.5	5/31/13 13:45	SO	None	2 - SS-Sleeve	10 day	
SL-841-SASA-SB-0.0-0.5	5/31/13 13:45	SO	None	1 - 4 oz glass	10 day	

Special Instructions: *V. Carter*

Relinquished by	Date	Time	Received by	Date	Time
<i>Samuel M. Lopez</i>	5/31/13	11:00	<i>V. Carter</i>	6/13	08:50

Sample Delivery Group

PH047

acct #13013 Cp #1395136 Sample # 7083686-98
SSFI Phase 3 Chain of C

CDM Smith

DateShipped: 6/5/2013

CarrierName: FedEx

AirbillNo: 799931220808

Contact Name: Pam Hartman

Contact Phone: (818)466-8007

COC No:

Cooler #:

Lab:

Lab Phone:

ab Address

20130605-01

7

Lancaster

717-556-7259

2425 New Holland Pike

Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Other Analysis/Notes
EB1-060513	6/5/13 15:00	WQ	HNO3 pH<2	1 - 250 mL Poly	10 day	
EB1-060513	6/5/13 15:00	WQ	None	2 - 250 mL Amber	10 day	
EB1-060513	6/5/13 15:00	WQ	None	2 - 1 L Amber	10 day	
EB1-060513	6/5/13 15:00	WQ	None	1 - 250 mL Poly	10 day	
EB1-060513	6/5/13 15:00	WQ	HCl	2 - 1 L Amber	10 day	
EB1-060513	6/5/13 15:00	WQ	HCl	3 - 40 mL Vial	10 day	

Special Instructions:

Sampler: P. Acker

[illegible]

06/17/2013 QP# 1395136 Sample# 7083636-48

SSFL Phase 3 Chain of Custody

CDM Smith

Date Shipped: 6/5/2013

Carrier Name: FedEx

Airbill No: 799931220808

Contact Name: Pam Hartman

Contact Phone: (818)466-8007

COC No:

Cooler #:

Lab:

Lab Phone:

Lab Address

20130605-02

2

Lancaster

717-556-7259

2425 New Holland Pike
Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Other Analysis/Notes
EB2-060513	6/5/13 15:30	WQ	HNO3 pH<2	1 - 250 mL Poly	10 day	
EB2-060513	6/5/13 15:30	WQ	None	2 - 250 mL Amber	10 day	
EB2-060513	6/5/13 15:30	WQ	None	2 - 11 Amber	10 day	
EB2-060513	6/5/13 15:30	WQ	None	1 - 250 mL Poly	10 day	
EB2-060513	6/5/13 15:30	WQ	HCl	2 - 11 Amber	10 day	
EB2-060513	6/5/13 15:30	WQ	HCl	3 - 40 mL Vial	10 day	
Methyl Mercury 1630						
Organotin						
NDMA 1625						
Formaldehyde 8315						
Cyanide 9012						
Energetics 8330						
Nitrates 300.0/9056						
Terphenyls 8015						
Alcohols 8015						
Glycols 8015						
TPH-EFH 8015						
TPH-GRO 8015						
1,4 Dioxane 8260 SIM						
VOCs 8260						
Pesticides 8081						
Herbicides 8151						
Hex Cr 7196/7199						
pH 9040 (Water)						
pH 9045 (Soil)						
Perchlorate Confirm 6850/6860						
Perchlorate 314.0/331						
PCBs/PCTs 8082						
Dioxins 1613						
1,4 Dioxane 8270 SIM						
PAHs 8270 SIM						
TIC 8270						
SVOC 8270						
Fluoride 300.0/9056						
Mercury 7470 (Water)						
Mercury 7471 (Soil)						
Metals 6010 and 6020						

Special Instructions:

Sampler:

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
Samuel Lopez	6/6/13	11:00									

6/11/13 Cup #1395136 Sample #7053686-98 **SSFL Phase 3 Chain of Custody**

CDM Smith
 Date Shipped: 6/5/2013
 Carrier Name: FedEx
 Airbill No: 799931220808
 Contact Name: Pam Hartman
 Contact Phone: (818)466-8007
 COC No: 20130605-03
 Cooler #: 3
 Lab: Lancaster
 Lab Phone: 717-556-7259
 Lab Address: 2425 New Holland Pike
 Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Other Analysis/Notes
SL-772-SA5A-SB-0-0-0.5	6/4/13 14:25	SO	None	2 - SS-Sleeve	10 day	
SL-772-SA5A-SB-0-0-0.5	6/4/13 14:25	SO	None	1 - 4 oz glass	10 day	
TB-060513	6/5/13 08:00	WQ	HCl	3 - 40 mL Vial	10 day	
SL-811-SA5A-SB-0-0-0.5	6/5/13 08:45	SO	None	2 - SS-Sleeve	10 day	
SL-811-SA5A-SB-0-0-0.5	6/5/13 08:45	SO	None	1 - 4 oz glass	10 day	
SL-811-SA5A-SB-5-5-6.5	6/5/13 09:00	SO	None	2 - 16 oz glass	10 day	
SL-811-SA5A-SB-5-5-6.5	6/5/13 09:00	SO	None	1 - 4 oz glass	10 day	
SL-811-SA5A-SB-5-5-6.5	6/5/13 09:00	SO	None	2 - Encore	10 day	
SL-813-SA5A-SB-0-0-0.5	6/5/13 09:45	SO	None	2 - SS-Sleeve	10 day	
SL-813-SA5A-SB-0-0-0.5	6/5/13 09:45	SO	None	1 - 4 oz glass	10 day	
SL-814-SA5A-SB-0-0-0.5	6/5/13 10:25	SO	None	2 - SS-Sleeve	10 day	
SL-814-SA5A-SB-0-0-0.5	6/5/13 10:25	SO	None	1 - 4 oz glass	10 day	
SL-814-SA5A-SB-4-0-5.0	6/5/13 10:40	SO	None	2 - 16 oz glass	10 day	
SL-814-SA5A-SB-4-0-5.0	6/5/13 10:40	SO	None	1 - 4 oz glass	10 day	
SL-814-SA5A-SB-4-0-5.0	6/5/13 10:40	SO	None	2 - Encore	10 day	
SL-859-SA5A-SB-0-0-0.5	6/5/13 13:50	SO	None	2 - SS-Sleeve	10 day	
SL-859-SA5A-SB-0-0-0.5	6/5/13 13:50	SO	None	1 - 4 oz glass	10 day	
SL-861-SA5A-SB-0-0-0.5	6/5/13 14:20	SO	None	2 - SS-Sleeve	10 day	
SL-861-SA5A-SB-0-0-0.5	6/5/13 14:20	SO	None	1 - 4 oz glass	10 day	
SL-861-SA5A-SB-4-0-5.0	6/5/13 15:05	SO	None	2 - 16 oz glass	10 day	
SL-861-SA5A-SB-4-0-5.0	6/5/13 15:05	SO	None	2 - Encore	10 day	
SL-861-SA5A-SB-7-0-8.0	6/5/13 15:15	SO	None	2 - 16 oz glass	10 day	
SL-861-SA5A-SB-7-0-8.0	6/5/13 15:15	SO	None	2 - Encore	10 day	

Methyl Mercury 1630
 Organotin
 NDMA 1625
 Formaldehyde 8315
 Cyanide 9012
 Energetics 8330
 Nitrates 300.0/9056
 Terphenyls 8015
 Alcohols 8015
 Glycols 8015
 TPH-EFH 8015
 TPH-GRO 8015
 1,4 Dioxane 8260 SIM
 VOCs 8260
 Pesticides 8081
 Herbicides 8151
 Hex Cr 7196/7199
 pH 9040 (Water)
 pH 9045 (Soil)
 Perchlorate Confirm 6850/6860
 Perchlorate 314.0/331
 PCBs/PCTs 8082
 Dioxins 1613
 1,4 Dioxane 8270 SIM
 PAHs 8270 SIM
 TIC 8270
 SVOC 8270
 Fluoride 300.0/9056
 Mercury 7470 (Water)
 Mercury 7471 (Soil)
 Metals 6010 and 6020

Sample Delivery Group

PH050

acct # 13013 Cup # 1395501

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 6/6/2013

CarrierName: FedEx

AirbillNo: 799943102615

Contact Name: Pam Hartman

Contact Phone: (818)466-8007

COC No:

Cooler #:

Lab:

Lab Phone:

Lab Address

20130606-02

1

Lancaster

717-556-7259

2425 New Holland Pike
Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Other Analysis/Notes
TB-060613	6/6/13 08:00	WQ	HCl	3 - 40 mL Vial	10 day	
SL-871-SASA-SB-0.0-0.5MS	6/6/13 10:30	SO	None	6 - SS-Sleeve	10 day	
SL-871-SASA-SB-0.0-0.5MS	6/6/13 10:30	SO	None	1 - 8 oz glass	10 day	
SL-1271-SASA-SB-0.0-0.5	6/6/13 10:45	SO	None	2 - SS-Sleeve	10 day	
SL-1271-SASA-SB-0.0-0.5	6/6/13 10:45	SO	None	1 - 4 oz glass	10 day	
SL-872-SASA-SB-0.0-0.5	6/6/13 12:55	SO	None	2 - SS-Sleeve	10 day	
SL-872-SASA-SB-0.0-0.5	6/6/13 12:55	SO	None	1 - 4 oz glass	10 day	
SL-872-SASA-SB-2.5-3.5	6/6/13 13:20	SO	None	2 - 16 oz glass	10 day	
SL-872-SASA-SB-2.5-3.5	6/6/13 13:20	SO	None	2 - Encore	10 day	
SL-873-SASA-SB-0.0-0.5	6/6/13 14:15	SO	None	2 - SS-Sleeve	10 day	
SL-873-SASA-SB-0.0-0.5	6/6/13 14:15	SO	None	1 - 4 oz glass	10 day	
SL-862-SASA-SB-0.0-0.5	6/6/13 15:05	SO	None	2 - SS-Sleeve	10 day	
SL-862-SASA-SB-0.0-0.5	6/6/13 15:05	SO	None	1 - 4 oz glass	10 day	
SL-862-SASA-SB-4.5-5.5	6/6/13 15:40	SO	None	2 - 16 oz glass	10 day	
SL-862-SASA-SB-4.5-5.5	6/6/13 15:40	SO	None	2 - Encore	10 day	

Special Instructions:

Sampler: V. C. 

[illegible]

Subarea 5A PH050 Page 75 of 1665
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Sample Delivery Group


PH051

Sample # 7086819-23

SSFL Phase 3 Chain of Custody

2425 New Holland Pike
Lancaster, PA 17601

Special Instructions:

Sampler: 

[illegible]

Sample Delivery Group

PH052

708851-62

SSFL Phase 3 Chain of Custody

20130610-01

[illegible]

Special Instructions:

Sampler:

[illegible]

Sample Delivery Group

PH053

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 6/10/2013

CarrierName:

AirbillNo: 799965626724

Contact Name:

Contact Phone: (818)466-8007

COC No:

Cooler #:

Lab:

Lab Phone:

Lab Address

20130610-02

2

Lancaster

717-556-7259

2425 New Holland Pike

Lancaster. PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Other Analysis/Notes
TB-061013	6/10/13 08:00	WQ	HCl	3 - 40 mL Vial	10 day	
SL-1176-SASA-SB-6.0-7.0MS	6/10/13 11:30	SO	None	6 - Encore	10 day	MS/MSD
SL-1176-SASA-SB-6.0-7.0	6/10/13 11:40	SO	None	2 - Encore	10 day	
SL-777-SASA-SB-0.0-0.5	6/10/13 14:45	SO	None	2 - SS-Sleeve	10 day	
SL-777-SASA-SB-0.0-0.5	6/10/13 14:45	SO	None	1 - 4 oz glass	10 day	
SL-779-SASA-SB-0.0-0.5	6/10/13 14:00	SO	None	2 - SS-Sleeve	10 day	
SL-779-SASA-SB-0.0-0.5	6/10/13 14:00	SO	None	1 - 4 oz glass	10 day	

Special Instructions:

Sampler:

[illegible]

Sample Delivery Group

PH054

Acc# 13013 Cp# 1396442 Sample # 7089812-26

SSFL Phase 3 Chain of Custody

CDM Smith

Date Shipped: 6/11/2013

Carrier Name: FedEx

Airbill No: 7999 7637 80065

Contact Name: Pam Hartman

Contact Phone: (818)466-8007

COC No:

Cooler #:

Lab:

Lab Phone:

Lab Address

20130611-01

1

Lancaster

717-556-7259

2425 New Holland Pike

Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Other Analysis/Notes
SL-783-SASA-SB-0.0-0.5MS	6/11/13 10:00	SO	None	5 - SS-Sieve	10 day	Methyl Mercury 1630
SL-783-SASA-SB-0.0-0.5MS	6/11/13 10:00	SO	None	2 - 8 oz glass	10 day	Organotin
SL-1183-SASA-SB-0.0-0.5	6/11/13 10:15	SO	None	2 - SS-Sieve	10 day	NDMA 1625
SL-1183-SASA-SB-0.0-0.5	6/11/13 10:15	SO	None	2 - 4 oz glass	10 day	Formaldehyde 8315
SL-789-SASA-SB-0.0-0.5	6/11/13 09:00	SO	None	2 - SS-Sieve	10 day	Cyanide 9012
SL-789-SASA-SB-0.0-0.5	6/11/13 09:00	SO	None	2 - 4 oz glass	10 day	Energetics 8330
SL-789-SASA-SB-0.0-0.5	6/11/13 09:00	SO	None	2 - 16 oz glass	10 day	Nitrates 300.0/9056
SL-789-SASA-SB-0.0-0.5	6/11/13 09:30	SO	None	1 - 4 oz glass	10 day	Terphenyls 8015
SL-789-SASA-SB-0.0-0.5	6/11/13 09:30	SO	None	2 - Encore	10 day	Alcohols 8015
SL-789-SASA-SB-0.0-0.5	6/11/13 09:30	SO	None	3 - 40 ml Vial	10 day	Glycols 8015
SL-789-SASA-SB-0.0-0.5	6/11/13 09:30	SO	None	2 - SS-Sieve	10 day	TPH-EFH 8015
SL-789-SASA-SB-0.0-0.5	6/11/13 14:05	SO	None	1 - 4 oz glass	10 day	TPH-GRO 8015
SL-789-SASA-SB-0.0-0.5	6/11/13 14:05	SO	None	2 - SS-Sieve	10 day	1,4 Dioxane 8260 SIM
SL-789-SASA-SB-0.0-0.5	6/11/13 13:20	SO	None	1 - 4 oz glass	10 day	VOCs 8260
SL-789-SASA-SB-0.0-0.5	6/11/13 13:20	SO	None	2 - SS-Sieve	10 day	Pesticides 8081
SL-789-SASA-SB-0.0-0.5	6/11/13 12:30	SO	None	1 - 4 oz glass	10 day	Herbicides 8151
SL-789-SASA-SB-0.0-0.5	6/11/13 12:30	SO	None	2 - SS-Sieve	10 day	Hex Cr 7196/7199
SL-789-SASA-SB-0.0-0.5	6/11/13 14:50	SO	None	1 - 4 oz glass	10 day	pH 9040 (Water)
SL-789-SASA-SB-0.0-0.5	6/11/13 14:50	SO	None	2 - SS-Sieve	10 day	pH 9045 (Soil)
SL-789-SASA-SB-0.0-0.5	6/11/13 14:50	SO	None	1 - 4 oz glass	10 day	Perchlorate Confirm 6850/6860
SL-789-SASA-SB-0.0-0.5	6/11/13 14:50	SO	None	2 - SS-Sieve	10 day	Perchlorate 314.0/331
SL-789-SASA-SB-0.0-0.5	6/11/13 14:50	SO	None	1 - 4 oz glass	10 day	PCBs/PCTs 8082
SL-789-SASA-SB-0.0-0.5	6/11/13 14:50	SO	None	2 - SS-Sieve	10 day	Dioxins 1613
SL-789-SASA-SB-0.0-0.5	6/11/13 14:50	SO	None	1 - 4 oz glass	10 day	1,4 Dioxane 8270 SIM
SL-789-SASA-SB-0.0-0.5	6/11/13 14:50	SO	None	2 - SS-Sieve	10 day	PAHs 8270 SIM
SL-789-SASA-SB-0.0-0.5	6/11/13 14:50	SO	None	1 - 4 oz glass	10 day	TIC 8270
SL-789-SASA-SB-0.0-0.5	6/11/13 14:50	SO	None	2 - SS-Sieve	10 day	SVOC 8270
SL-789-SASA-SB-0.0-0.5	6/11/13 14:50	SO	None	1 - 4 oz glass	10 day	Fluoride 300.0/9056
SL-789-SASA-SB-0.0-0.5	6/11/13 14:50	SO	None	2 - SS-Sieve	10 day	Mercury 7470 (Water)
SL-789-SASA-SB-0.0-0.5	6/11/13 14:50	SO	None	1 - 4 oz glass	10 day	Mercury 7471 (Soil)
SL-789-SASA-SB-0.0-0.5	6/11/13 14:50	SO	None	2 - SS-Sieve	10 day	Metals 6010 and 6020

Rec'd by: Pat Gh PH054 Page 91 of 2486
6/12/2013 8:04:25

acct# 13013 Cp# 1396442

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 6/11/2013

CarrierName: FedEx

AirbillNo: 799976378065

Contact Name: Pam Hartman

Contact Phone: (818)466-8007

COC No.:

Cooler #:

Lab:

Lab Phone:

Lab Address

20130611-01

1

Lancaster

717-556-7259

**2425 New Holland Pike
Lancaster, PA 17601**

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time
					Methyl Mercury 1630
					Organotin
					NDMA 1625
					Formaldehyde 8315
					Cyanide 9012
					Energetics 8330
					Nitrates 300.0/9056
					Terphenyls 8015
					Alcohols 8015
					Glycols 8015
					TPH-EFH 8015
					TPH-GRO 8015
					1,4 Dioxane 8260 SIM
					VOCs 8260
					Pesticides 8081
					Herbicides 8151
					Hex Cr 7196/7199
					pH 9040 (Water)
					pH 9045 (Soil)
					Perchlorate Confirm 6850/6860
					Perchlorate 314.0/331
					PCBs/PCTs 8082
					Dioxins 1613
					1,4 Dioxane 8270 SIM
					PAHs 8270 SIM
					TIC 8270
					SVOC 8270
					Fluoride 300.0/9056
					Mercury 7470 (Water)
					Mercury 7471 (Soil)
					Metals 6010 and 6020

Special Instructions:

Sampler:[illegible]

Sample Delivery Group

PH055

13013 1396835 7091426-43

**2425 New Holland Pike
Lancaster, PA 17601**

Special Instructions:

Sampler:

[illegible]

SSFL Phase 3 Chain of Custody

CDM Smith

Date Shipped: 6/12/2013

Carrier Name: FedEx

Airbill No: 799987261502

Contact Name: Pam Hartman

Contact Phone: (818)466-8007

COC No:

20130612-02

Cooler #:

2

Lab:

Lancaster

Lab Phone:

717-556-7259

Lab Address

2425 New Holland Pike
Lancaster, PA 17601

13013

1390835 7091426-43

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Other Analysis/Notes
EB2-061213	6/12/13 15:30	WQ	None	2 - 1 L Amber	10 day	
EB2-061213	6/12/13 15:30	WQ	HCl	2 - 1 L Amber	10 day	
EB2-061213	6/12/13 15:30	WQ	None	2 - 250 mL Poly	10 day	
EB2-061213	6/12/13 15:30	WQ	HNO3 pH<2	1 - 250 mL Poly	10 day	
EB2-061213	6/12/13 15:30	WQ	None	1 - 250 mL Amber	10 day	
Methyl Mercury 1630						
Organotin						
NDMA 1625						
Formaldehyde 8315						
Cyanide 9012						
Energetics 8330						
Nitrates 300.0/9056						
Terphenyls 8015						
Alcohols 8015						
Glycols 8015						
TPH-EFH 8015						
TPH-GRO 8015						
1,4 Dioxane 8260 SIM						
VOCs 8260						
Pesticides 8081						
Herbicides 8151						
Hex Cr 7196/7199						
pH 9040 (Water)						
pH 9045 (Soil)						
Perchlorate Confirm 6850/6860						
Perchlorate 314.0/331						
PCBs/PCTs 8082						
Dioxins 1613						
1,4 Dioxane 8270 SIM						
PAHs 8270 SIM						
TIC 8270						
SVOC 8270						
Fluoride 300.0/9056						
Mercury 7470 (Water)						
Mercury 7471 (Soil)						
Metals 6010 and 6020						

Special Instructions:

Sampler: *Pam Hartman*

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
<i>Stephanie Love</i>	6/13/13	1600							<i>Patty</i>	6/13/13	0915

13013 1396835 7091426-43

Contact Phone: (818)466-8007

Lab Phone:

Lancaster

717-556-7259

2425 New Holland Pike

Lancaster. PA 17601

Special Instructions:

Sampler: P. Hart

Sevgiye 01/12/13 1100

P. J. G.

6/13/13 0915

7091426-43

Contact Phone: (818)466-8007

Lancaster, PA 17601

Lancaster

717-556-7259

2425 New Holland Pike

[illegible]PH055 Page 112 of 3565
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13013 1396835 7091426-43

Lab Address 2425 New Holland Pike
Lancaster, PA 17601

1

Lancaster

717-556-7259

Special Instructions:

Sampler:

235

Sample Delivery Group

PH056

SSFL Phase 3 Chain of Custody

Contact Phone: (818)466-8007

Lab Address

2425 New Holland Pike

Special Instructions:

Sampler: John Habicht

[illegible]

Sample Delivery Group

PH057

SSFL Phase 3 Chain of Custody

Contact Phone: (818)466-8007

Lab Address 2425 New Holland Pike
Lancaster, PA 17601

Lancaster

717-556-7259

Special Instructions:

Sampler:

A large, stylized handwritten signature in black ink, spanning across the 'Special Instructions' and 'Sampler' fields. The signature appears to be 'J. H. ...' with a long horizontal stroke extending to the right.[illegible]

Sample Delivery Group

PH058

13013 1397820 7096471-81

Lancaster

Special Instructions:

Sampler:

$$\text{COO}^- \text{K}^+ \text{N}^+ \text{Z}^-$$

Sample Delivery Group

PH059

13013/1398132/7097884-92

SSFL Phase 3 Chain of Custody

CDM Smith

Date Shipped: 6/18/2013

Carrier Name: FedEx

Airbill No: 796032196537

Contact Name: Pam Hartman

Contact Phone: (818)466-8007

COC No: 20130618-01

Cooler #: 1

Lab: Lancaster

Lab Phone: 717-556-7259

Lab Address: 2425 New Holland Pike
Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Other Analysis/Notes
TB-061813	6/18/13 08:00	WQ	HCl	3 - 40 mL Vial	10 day	
SL-854-SASA-SB-0.0-0.5	6/18/13 09:45	SO	None	2 - 55-Sieve	10 day	
SL-854-SASA-SB-0.0-0.5	6/18/13 09:45	SO	None	1 - 4 oz glass	10 day	
SL-854-SASA-SB-4.0-5.0	6/18/13 10:00	SO	None	2 - 16 oz glass	10 day	
SL-854-SASA-SB-4.0-5.0	6/18/13 10:00	SO	None	2 - Encore	10 day	
SL-855-SASA-SB-0.0-0.5	6/18/13 10:30	SO	None	2 - 55-Sieve	10 day	
SL-855-SASA-SB-0.0-0.5	6/18/13 10:30	SO	None	1 - 4 oz glass	10 day	
SL-860-SASA-SB-0.0-0.5	6/18/13 12:40	SO	None	2 - 55-Sieve	10 day	
SL-860-SASA-SB-0.0-0.5	6/18/13 12:40	SO	None	1 - 4 oz glass	10 day	
SL-860-SASA-SB-4.0-5.0	6/18/13 12:50	SO	None	2 - 16 oz glass	10 day	
SL-860-SASA-SB-4.0-5.0	6/18/13 12:50	SO	None	2 - Encore	10 day	
SL-860-SASA-SB-10.5-11.5	6/18/13 13:00	SO	None	2 - 16 oz glass	10 day	
SL-860-SASA-SB-10.5-11.5	6/18/13 13:00	SO	None	2 - Encore	10 day	
SL-864-SASA-SB-0.0-0.5	6/18/13 13:55	SO	None	2 - 55-Sieve	10 day	
SL-864-SASA-SB-0.0-0.5	6/18/13 13:55	SO	None	1 - 4 oz glass	10 day	
SL-864-SASA-SB-4.0-5.0	6/18/13 14:10	SO	None	2 - 16 oz glass	10 day	
SL-864-SASA-SB-4.0-5.0	6/18/13 14:10	SO	None	2 - Encore	10 day	

lot 2

SSFL Phase 3 Chain of Custody

Lancaster, PA 17601

Sample Delivery Group

PH060

13013 1398465 7099654-64

(818)466-8007

Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Other Analysis/Notes
EB1-061913	6/19/13 15:00	WQ	HNO3 pH<2	1 - 250 mL Poly	10 day	Methyl Mercury 1630 Organotin NDMA 1625 Formaldehyde 8315 Cyanide 9012 Energetics 8330 Nitrates 300.0/9056 Terphenyls 8015 Alcohols 8015 Glycols 8015 TPH-EFH 8015 TPH-GRO 8015 1,4 Dioxane 8260 SIM VOCs 8260 Pesticides 8081 Herbicides 8151 Hex Cr 7196/7199 pH 9040 (Water) pH 9045 (Soil) Perchlorate Confirm 6850/6860 Perchlorate 314.0/331 PCBs/PCTs 8082 Dioxins 1613 1,4 Dioxane 8270 SIM PAHs 8270 SIM TIC 8270 SVQC 8270 Fluoride 300.0/9056 Mercury 7470 (Water) Mercury 7471 (Soil) Metals 6010 and 6020
EB1-061913	6/19/13 15:00	WQ	None	1 - 250 mL Amber	10 day	
EB1-061913	6/19/13 15:00	WQ	None	2 - 1 L Amber	10 day	
EB1-061913	6/19/13 15:00	WQ	None	1 - 250 mL Poly	10 day	X
EB1-061913	6/19/13 15:00	WQ	HCl	3 - 40 mL Vial	10 day	X X
EB1-061913	6/19/13 15:00	WQ	HCl	2 - 1 L Amber	10 day	X

Special Instructions:

Sampler:

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
Dan Mural	06/19/2013	1600	/	/	/	/	/	/	/	/	/
									Patt H	6/20/2013	0700

13013 1398465 7099654-64

**2425 New Holland Pike
Lancaster, PA 17601**

Lancaster

Special Instructions:

Sampler: P. Hart

[illegible]

13013 1398465 7099654-64

Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Other Analysis/Notes
TB-061913	6/19/13 08:00	WQ	HCl	3 - 40 mL Vial	10 day	
SL-859-SA5A-SB-0.0-0.5	6/19/13 09:50	SO	None	2 - SS-Sleeve	10 day	
SL-859-SA5A-SB-0.0-0.5	6/19/13 09:50	SO	None	1 - 4 oz glass	10 day	
SL-863-SA5A-SB-0.0-0.5	6/19/13 09:50	SO	None	2 - SS-Sleeve	10 day	
SL-863-SA5A-SB-0.0-0.5	6/19/13 09:00	SO	None	1 - 4 oz glass	10 day	
SL-863-SA5A-SB-4.0-5.0	6/19/13 09:20	SO	None	2 - 16 oz glass	10 day	
SL-863-SA5A-SB-4.0-5.0	6/19/13 09:20	SO	None	2 - Encore	10 day	
SL-866-SA5A-SB-0.0-0.5	6/19/13 10:40	SO	None	2 - SS-Sleeve	10 day	
SL-866-SA5A-SB-0.0-0.5	6/19/13 10:40	SO	None	1 - 4 oz glass	10 day	
SL-866-SA5A-SB-5.5-6.5	6/19/13 11:15	SO	None	1 - 16 oz glass	10 day	
SL-866-SA5A-SB-5.5-6.5	6/19/13 11:15	SO	None	2 - Encore	10 day	
SL-866-SA5A-SB-5.5-6.5	6/19/13 11:15	SO	None	1 - SS-Sleeve	10 day	
SL-865-SA5A-SB-0.0-0.5	6/19/13 13:40	SO	None	2 - SS-Sleeve	10 day	
SL-865-SA5A-SB-0.0-0.5	6/19/13 13:40	SO	None	1 - 4 oz glass	10 day	
SL-865-SA5A-SB-4.0-5.0	6/19/13 13:55	SO	None	2 - 16 oz glass	10 day	
SL-865-SA5A-SB-4.0-5.0	6/19/13 13:55	SO	None	2 - Encore	10 day	
SL-865-SA5A-SB-9.0-10.0	6/19/13 14:10	SO	None	2 - 16 oz glass	10 day	
SL-865-SA5A-SB-9.0-10.0	6/19/13 14:10	SO	None	2 - Encore	10 day	

Rec'd By: Pat ga 6/20/13 PH800 Page 87 of 2605
Page 87 of 78

13013 1398465 7099654-64

(818)466-8007

Lab Address

**2425 New Holland Pike
Lancaster, PA 17601**

Special instructions:	
Sampler:	

2. 4. 2005

Sample Delivery Group

PH061

acct# 13013 Gp# 1398848

CDM Smith

DateShipped: 6/20/2013

CarrierName: FedEx

AirbillNo: 796051165420

Contact Name: Pam Hartman

Contact Phone: (818)466-8007

COC No.:

Cooler #:

Lab:

Lab Phone:

Lab Address

20130620-01

1

Lancaster

717-556-7259

2425 New Holland Pike

Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Other Analysis/Notes
TB-062013	6/20/13 08:00	WQ	HCl	3 - 40 ml Vial	10 day	
SL-867-SASA-SB-0.0-0.5	6/20/13 08:25	SO	None	2 - SS-Sieve	10 day	
SL-867-SASA-SB-0.0-0.5	6/20/13 08:25	SO	None	1 - 4 oz glass	10 day	
SL-867-SASA-SB-3.5-4.5	6/20/13 08:50	SO	None	2 - SS-Sieve	10 day	
SL-867-SASA-SB-3.5-4.5	6/20/13 08:50	SO	None	1 - 4 oz glass	10 day	
SL-867-SASA-SB-3.5-4.5	6/20/13 08:50	SO	None	2 - Encore	10 day	
SL-868-SASA-SB-0.0-0.5	6/20/13 09:50	SO	None	2 - SS-Sieve	10 day	
SL-868-SASA-SB-0.0-0.5	6/20/13 09:50	SO	None	1 - 4 oz glass	10 day	
SL-868-SASA-SB-4.0-5.0	6/20/13 10:25	SO	None	2 - SS-Sieve	10 day	
SL-868-SASA-SB-4.0-5.0	6/20/13 10:25	SO	None	1 - 4 oz glass	10 day	
SL-868-SASA-SB-4.0-5.0	6/20/13 10:25	SO	None	2 - Encore	10 day	

Special Instructions:

Sampler:

[illegible]

Sample Delivery Group

PH077

13013

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 7/29/2013

CarrierName: FedEx

AirbillNo: 796342615190

Contact Name: Pam Hartman

Contact Phone: (818)466-8007

COC No: 20130729-01

Cooler #: 1

Lab: Lancaster

Lab Phone: 717-556-7259

2425 New Holland Pike
Lab Address

Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Other Analysis/Notes
TB2-072913	7/29/13 08:00	WQ	HCl	3 - 40 mL Vial	10 day	
SL-853-SASA-SB-0.0-0.5	7/29/13 08:00	SO	None	2 - SS-Sieve	10 day	
SL-853-SASA-SB-0.0-0.5	7/29/13 08:00	SO	None	1 - 4 oz glass	10 day	
SL-853-SASA-SB-3.5-4.5	7/29/13 08:15	SO	None	2 - 16 oz glass	10 day	
SL-853-SASA-SB-3.5-4.5	7/29/13 08:15	SO	None	2 - Encore	10 day	
SL-851-SASA-SB-0.0-0.5	7/29/13 08:40	SO	None	2 - SS-Sieve	10 day	
SL-851-SASA-SB-0.0-0.5	7/29/13 08:40	SO	None	1 - 4 oz glass	10 day	
SL-849-SASA-SB-0.0-0.5	7/29/13 09:45	SO	None	2 - SS-Sieve	10 day	
SL-849-SASA-SB-0.0-0.5	7/29/13 09:45	SO	None	1 - 4 oz glass	10 day	

Special Instructions:

Sample: 

[illegible]

Sample Delivery Group

PH079

13013 1408035 7145265

Lab Address

2425 New Holland Pike

Special Instructions:

Sampler:

[illegible]

Sample Delivery Group

PH125

SSFL Phase 3 Chain of Custody

Contact Phone: (818)466-8007

Lab Address

Lancaster, PA 17601

Special Instructions:

Sampler:

[illegible]

Sample Delivery Group

PH126

acc# 13013 Cp# 1433660 sample # 7275694-60

SSFL Phase 3 Chain of Custody

CDM Smith

Date Shipped: 11/12/2013

Carrier Name:

Airbill No:

Contact Name: Pam Hartman

Contact Phone: (818)466-8007

COC No:

Cooler #:

Lab:

Lab Phone:

Lab Address

20131112-03

3

Lancaster

717-556-7259

2425 New Holland Pike
Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Other Analysis/Notes
TB2-111213	11/12/13 08:00	WQ	HCl	3 - 40 mL Vial	10 day	
SL-628-SA5A-SB-0.0-0.5MS	11/12/13 13:40	SO	None	6 - SS-Sleeve	10 day	
SL-628-SA5A-SB-0.0-0.5MS	11/12/13 13:40	SO	None	1 - 4 oz glass	10 day	
SL-928-SA5A-SB-0.0-0.5	11/12/13 13:40	SO	None	2 - SS-Sleeve	10 day	
SL-928-SA5A-SB-0.0-0.5	11/12/13 13:40	SO	None	1 - 4 oz glass	10 day	
SL-628-SA5A-SB-6.5-7.5	11/12/13 14:05	SO	None	2 - 16 oz glass	10 day	
SL-628-SA5A-SB-6.5-7.5	11/12/13 14:05	SO	None	2 - Encore	10 day	

Special Instructions:

Sampler:

Relinquished by	Date	Time	Received by	Date	Time
<i>[Signature]</i>	11.12.13	1600	<i>[Signature]</i>	11/13/13	0940

Sample Delivery Group

PH127

SSFL Phase 3 Chain of Custody

2425 New Holland Pike

PH127 Page 118 of 4453
Page 104 of 107

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 11/12/2013

CarrierName: FedEx

AirbillNo:

Contact Name: Pam Hartman

Contact Phone: (818)466-8007

COC No.:

Cooler #:

Lab:

Lab Phone:

Lab Address

20131112-02

2

Lancaster

717-556-7259

2425 New Holland pike

Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Other Analysis/Notes
SL-560-SA5D-SB-0.0-0.5	11/12/13 08:35	SO	None	2 - 55-Sleeve	10 day	
SL-560-SA5D-SB-4.0-5.0MS	11/12/13 09:20	SO	None	6 - 16 oz glass	10 day	
SL-560-SA5D-SB-7.0-8.0	11/12/13 09:35	SO	None	2 - 16 oz glass	10 day	
SL-860-SA5D-SB-4.0-5.0	11/12/13 09:05	SO	None	2 - 16 oz glass	10 day	
SL-560-SA5D-SB-4.0-5.0MS	11/12/13 09:20	SO	None	6 - Encore	10 day	
SL-560-SA5D-SB-0.0-0.5	11/12/13 08:35	SO	None	2 - 4 oz glass	10 day	
SL-860-SA5D-SB-4.0-5.0	11/12/13 09:05	SO	None	2 - Encore	10 day	
SL-560-SA5D-SB-7.0-8.0	11/12/13 09:35	SO	None	2 - Encore	10 day	
SL-549-SA5D-SB-0.0-0.5	11/12/13 10:25	SO	None	2 - 55-Sleeve	10 day	
SL-549-SA5D-SB-0.0-0.5	11/12/13 10:25	SO	None	1 - 4 oz glass	10 day	
SL-549-SA5D-SB-4.0-5.0	11/12/13 10:40	SO	None	2 - 16 oz glass	10 day	
SL-549-SA5D-SB-4.0-5.0	11/12/13 10:40	SO	None	2 - Encore	10 day	
SL-549-SA5D-SB-11.0-12.0	11/12/13 11:05	SO	None	2 - 16 oz glass	10 day	
SL-549-SA5D-SB-11.0-12.0	11/12/13 11:05	SO	None	2 - Encore	10 day	
TR1-111713	11/12/13 08:00	WQ	HCl	3 - 40 mL Vial	10 day	

Special Instructions:

Sampler:

[illegible]

Sample Delivery Group

PH128

QCC# 4413013
Cup # 1433971
Sample # 7276995-7010

SSFL Phase 3 Chain of Custody

CDM Smith

Date Shipped: 11/13/2013

Carrier Name: FedEx

Airbill No:

Contact Name: Pam Hartman

Contact Phone: (818)466-8007

COC No:

Cooler #:

Lab:

Lab Phone:

Lab Address

20131113-01

1

Lancaster

717-556-7259

2425 New Holland Pike
Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Other Analysis/Notes
SL-654-SA5A-SB-0.0-0.5	11/13/13 08:05	SO	None	1 - 4 oz glass	10 day	
SL-654-SA5A-SB-0.0-0.5	11/13/13 08:05	SO	None	2 - SS-Sleeve	10 day	
SL-654-SA5A-SB-3.0-4.0MS	11/13/13 08:20	SO	None	6 - 16 oz glass	10 day	
SL-654-SA5A-SB-3.0-4.0	11/13/13 08:25	SO	None	2 - 16 oz glass	10 day	
SL-657-SA5A-SB-7.0-8.0	11/13/13 09:50	SO	None	2 - 16 oz glass	10 day	
SL-658-SA5A-SB-0.0-0.5	11/13/13 10:35	SO	None	1 - 4 oz glass	10 day	
SL-658-SA5A-SB-0.0-0.5	11/13/13 10:35	SO	None	2 - SS-Sleeve	10 day	
SL-657-SA5A-SB-0.0-0.5	11/13/13 09:35	SO	None	2 - SS-Sleeve	10 day	
SL-657-SA5A-SB-0.0-0.5	11/13/13 09:35	SO	None	1 - 4 oz glass	10 day	
SL-658-SA5A-SB-7.0-8.0	11/13/13 10:45	SO	None	2 - 16 oz glass	10 day	
SL-654-SA5A-SB-3.0-4.0MS	11/13/13 08:20	SO	None	6 - Encore	10 day	
SL-654-SA5A-SB-3.0-4.0	11/13/13 08:25	SO	None	2 - Encore	10 day	
SL-657-SA5A-SB-0.0-0.5	11/13/13 09:35	SO	None	2 - Encore	10 day	
SL-658-SA5A-SB-0.0-0.5	11/13/13 10:35	SO	None	2 - Encore	10 day	
SL-667-SA5A-SB-3.0-4.0	11/13/13 13:40	SO	None	2 - Encore	10 day	
SL-657-SA5A-SB-4.0-5.0	11/13/13 14:20	SO	None	2 - Encore	10 day	
SL-658-SA5A-SB-4.0-5.0	11/13/13 14:00	SO	None	2 - Encore	10 day	
						Methyl Mercury 1630
						Organotin
						NDMA 1625
						Formaldehyde 8315
						Cyanide 9012
						Energetics 8330
						Nitrates 300.0/9056
						Terphenyls 8015
						Alcohols 8015
						Glycols 8015
						TPH-EFH 8015
						TPH-GRO 8015
						1,4 Dioxane 8260 SIM
						VOCs 8260
						Pesticides 8081
						Herbicides 8151
						Hex Cr 7196/7199
						pH 9040 (Water)
						pH 9045 (Soil)
						Perchlorate Confirm 6850/6860
						Perchlorate 314.0/331
						PCBs/PCTs 8082
						Dioxins 1613
						1,4 Dioxane 8270 SIM
						PAHs 8270 SIM
						TIC 8270
						SVOC 8270
						Fluoride 300.0/9056
						Mercury 7470 (Water)
						Mercury 7471 (Soil)
						Metals 6010 and 6020

acct# 13013 Cp# 1433971

CDM Smith

DateShipped: 11/13/2013

CarrierName: FedEx

AirbillNo:

Contact Name: Pam Hartman

Contact Phone: (818)466-8007

COC No.:

Cooler #:

Lab:

Lab Phone:

Lab Address

20131113-01

1

Lancaster

717-556-7259

2425 New Holland Pike
Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time
					Methyl Mercury 1630
					Organotin
					NDMA 1625
					Formaldehyde 8315
					Cyanide 9012
					Energetics 8330
					Nitrates 300.0/9056
					Terphenyls 8015
					Alcohols 8015
					Glycols 8015
					TPH-EFH 8015
					TPH-GRO 8015
					1,4 Dioxane 8260 SIM
					VOCs 8260
					Pesticides 8081
					Herbicides 8151
					Hex Cr 7196/7199
					pH 9040 (Water)
					pH 9045 (Soil)
					Perchlorate Confirm 6850/6860
					Perchlorate 314.0/331
					PCBs/PCTs 8082
					Dioxins 1613
					1,4 Dioxane 8270 SIM
					PAHs 8270 SIM
					TIC 8270
					SVOC 8270
					Fluoride 300.0/9056
					Mercury 7470 (Water)
					Mercury 7471 (Soil)
					Metals 6010 and 6020

Sampler:

Special Instructions:

[illegible]

SSFL Phase 3 Chain of Custody

acct# 13013 Cp# 1438971 sample# 7276995-7010

CDM Smith **20131113-02**
Date Shipped: 11/13/2013 **COOL #:** 2
Carrier Name: FedEx **Lab:** Lancaster
Airbill No: **Lab Phone:** 717-556-7259
Contact Name: Pam Hartman **Lab Address:** 2425 New Holland Pike
Contact Phone: (818)466-8007 **Lancaster, PA 17601**

Sample	Date/Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Other Analysis/Notes
SL-67-SAS5A-SB-4.0-5.0	11/13/13 14:20	SO	None	2 - 16 oz glass	10 day	
SL-67-SAS5A-SB-4.0-5.0	11/13/13 14:00	SO	None	2 - 16 oz glass	10 day	
SL-67-SAS5A-SB-0.0-0.5	11/13/13 13:30	SO	None	2 - 55-Sieve	10 day	
SL-67-SAS5A-SB-0.0-0.5	11/13/13 13:30	SO	None	1 - 4 oz glass	10 day	
SL-67-SAS5A-SB-3.0-4.0	11/13/13 13:40	SO	None	2 - 16 oz glass	10 day	
SL-67-SAS5A-SB-0.0-0.5	11/13/13 12:50	SO	None	2 - 55-Sieve	10 day	
SL-67-SAS5A-SB-0.0-0.5	11/13/13 12:50	SO	None	1 - 4 oz glass	10 day	

Special Instructions:
 Sampler: *[Signature]*

Relinquished by	Date	Time	Received by	Date	Time
<i>[Signature]</i>	11.13.13	1600	<i>[Signature]</i>	11/14/13	0915

OCCT#13013 Cup #1433971 Sample# 7276995-7010

SSFL Phase 3 Chain of Custody

CDM Smith

Date Shipped: 11/13/2013

Carrier Name: FedEx

Airbill No: 797153393699

Contact Name: Pam Hartman

Contact Phone: (818)466-8007

COC No:

20131113-01

Cooler #:

1

Lab:

Lancaster

Lab Phone:

717-556-7259

Lab Address:

2425 New Holland Pike
Lancaster, PA 17601

Revised COC NY 11/14/13

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Other Analysis/Notes
SL-654-SASA-SB-0.0-0.5	11/13/13 08:05	SO	None	1 - 4 oz glass	10 day	
SL-654-SASA-SB-0.0-0.5	11/13/13 08:05	SO	None	2 - 55-Sieve	10 day	
SL-654-SASA-SB-3.0-4.0MS	11/13/13 08:20	SO	None	6 - 16 oz glass	10 day	
SL-954-SASA-SB-3.0-4.0	11/13/13 08:25	SO	None	2 - 16 oz glass	10 day	
SL-657-SASA-SB-7.0-8.0	11/13/13 09:50	SO	None	2 - 16 oz glass	10 day	
SL-658-SASA-SB-0.0-0.5	11/13/13 10:35	SO	None	1 - 4 oz glass	10 day	
SL-658-SASA-SB-0.0-0.5	11/13/13 10:35	SO	None	2 - 55-Sieve	10 day	
SL-657-SASA-SB-0.0-0.5	11/13/13 09:35	SO	None	2 - 55-Sieve	10 day	
SL-657-SASA-SB-0.0-0.5	11/13/13 09:35	SO	None	1 - 4 oz glass	10 day	
SL-658-SASA-SB-7.0-8.0	11/13/13 10:45	SO	None	2 - 16 oz glass	10 day	
SL-654-SASA-SB-3.0-4.0MS	11/13/13 08:20	SO	None	6 - Encore	10 day	
SL-954-SASA-SB-3.0-4.0	11/13/13 08:25	SO	None	2 - Encore	10 day	
SL-667-SASA-SB-3.0-4.0	11/13/13 13:40	SO	None	2 - Encore	10 day	
SL-657-SASA-SB-4.0-5.0	11/13/13 14:20	SO	None	2 - Encore	10 day	
SL-658-SASA-SB-4.0-5.0	11/13/13 14:00	SO	None	2 - Encore	10 day	
SL-657-SASA-SB-7.0-8.0	11/13/13 09:50	SO	None	2 - Encore	10 day	
SL-658-SASA-SB-7.0-8.0	11/13/13 10:45	SO	None	2 - Encore	10 day	
						Methyl Mercury 1630
						Organotin
						NDMA 1625
						Formaldehyde 8315
						Cyanide 9012
						Energetics 8330
						Nitrates 300.0/9056
						Terphenyls 8015
						Alcohols 8015
						Glycols 8015
						TPH-EFH 8015
						TPH-GRO 8015
						1,4 Dioxane 8260 SIM
						VOCs 8260
						Pesticides 8081
						Herbicides 8151
						Hex Cr 7196/7199
						pH 9040 (Water)
						pH 9045 (Soil)
						Perchlorate Confirm 6850/6860
						Perchlorate 314.0/331
						PCBs/PCTs 8082
						Dioxins 1613
						1,4 Dioxane 8270 SIM
						PAHs 8270 SIM
						TIC 8270
						SVOC 8270
						Fluoride 300.0/9056
						Mercury 7470 (Water)
						Mercury 7471 (Soil)
						Metals 6010 and 6020

Sample Delivery Group

PH129

Sample # 7279098-116

CDM Smith

DateShipped: 11/14/2013

CarrierName: FedEx

AirbillNo: 797164273268

Contact Name: Pam Hartman

Contact Phone: (818)466-8007

COC No:

Cooler #:

Lab:

Lab Phone:

Lab Address

20131114-01

1

Lancaster

717-556-7259

2425 New Holland Pike
Lancaster, PA 17601

[illegible]

Special Instructions:

Sampler:[illegible]

Survey to 11513915

Sample # 7279098-116

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 11/14/2013

CarrierName: FedEx

AirbillNo: 7971 6427 3268

Contact Name: Pam Hartman

Contact Phone: (818)466-8007

COC No:

Cooler #:

Lab:

Lab Phone:

Lab Address

20131114-02

2

Lancaster

717-556-7259

2425 New Holland pike

Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Other Analysis/Notes
SL-508-SA5A-SB-0.0-0.5	11/14/13 09:35	SO	None	2 - SS-Sleeve	10 day	
SL-508-SA5A-SB-0.0-0.5	11/14/13 09:35	SO	None	1 - 4 oz glass	10 day	
SL-508-SA5A-SB-4.0-5.0	11/14/13 09:47	SO	None	2 - 16 oz glass	10 day	
SL-508-SA5A-SB-9.0-10.0	11/14/13 09:55	SO	None	2 - 16 oz glass	10 day	
SL-508-SA5A-SB-17.0-18.0	11/14/13 10:02	SO	None	2 - 16 oz glass	10 day	
SL-508-SA5A-SB-21.0-22.0	11/14/13 10:09	SO	None	2 - 16 oz glass	10 day	
SL-508-SA5A-SB-33.0-34.0	11/14/13 09:18	SO	None	2 - 16 oz glass	10 day	
Methyl Mercury 1630						
Organotin						
NDMA 1625						
Formaldehyde 8315						
Cyanide 9012						
Energetics 8330						
Nitrates 300.0/9056						
Terphenyls 8015						
Alcohols 8015						
Glycols 8015						
TPH-EFH 8015	X					
TPH-GRO 8015						
1,4 Dioxane 8260 SIM						
VOCs 8260						
Pesticides 8081						
Herbicides 8151						
Hex Cr 7196/7199						
pH 9040 (Water)						
pH 9045 (Soil)						
Perchlorate Confirm 6850/6860						
Perchlorate 314.0/331						
PCBs/PCTs 8082	X					
Dioxins 1613	X					
1,4 Dioxane 8270 SIM						
PAHs 8270 SIM	X					
TIC 8270						
SVOG 8270						
Fluoride 300.0/9056						
Mercury 7470 (Water)						
Mercury 7471 (Spill)	X					
Metals 6010 and 6020	X					

Special Instructions:

Sampler:[illegible]

Shenandoah 11513 915

516

Sample # 7279098-116

CDM Smith

DateShipped: 11/14/2013

CarrierName: FedEx

AirbillNo: 797164273268

Contact Name: Pam Hartman

Contact Phone: (818)466-8007

COC No:

Cooler #:

Lab:

Lab Phone:

Lab Address

20131114-03

3

Lancaster

717-556-7259

2425 New Holland Pike
Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Other Analysis/Notes
TB-111413	11/14/13 08:00	WQ	HCl	9 - 40 mL Vial	10 day	
SL-508-SA5A-SB-4.0-5.0	11/14/13 09:47	SO	None	2 - Encore	10 day	
SL-508-SA5A-SB-9.0-10.0	11/14/13 09:55	SO	None	2 - Encore	10 day	
SL-508-SA5A-SB-17.0-18.0	11/14/13 10:02	SO	None	2 - Encore	10 day	
SL-508-SA5A-SB-21.0-22.0	11/14/13 10:09	SO	None	2 - Encore	10 day	
SL-508-SA5A-SB-33.0-34.0	11/14/13 09:18	SO	None	2 - Encore	10 day	
SL-521-SA5A-SB-9.0-10.0	11/14/13 13:50	SO	None	2 - Encore	10 day	
SL-521-SA5A-SB-11.0-12.0MS	11/14/13 14:20	SO	None	24 - Encore	10 day	
SL-821-SA5A-SB-11.0-12.0	11/14/13 14:25	SO	None	8 - Encore	10 day	
SL-521-SA5A-SB-14.0-15.0	11/14/13 14:35	SO	None	8 - Encore	10 day	

Special Instructions:

Sampler:

[illegible]

11513	915
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Plc # 7279098-116
SSFL Phase 3 Chain of Custody

COC No: 20131114-04

Contact Name: Pam Hartman

Contact Name: Pam Hartman
 Contact Phone: (818)466-8007

Cooler #:

Lancaster

717-556-7259

2425 New Holland Pike

Lancaster, PA 17601

Special Instructions:

Sampler:[illegible]

Branchburg 111513 915-

Sample Delivery Group

PH131

SSFL Phase 3 Chain of Custody

13013 1434844 7282325-46

CDM Smith

Date Shipped: 11/18/2013

Carrier Name: FedEx

Airbill No: 8017 8586 9939

Contact Name: Pam Hartman

Contact Phone: (818)466-8007

COC No:

Cooler #: 1

Lab:

Lab Phone:

Lab Address

20131118-01

Lancaster


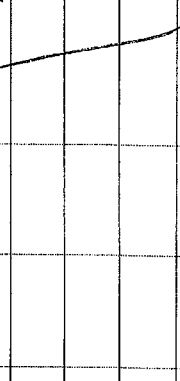
717-556-7259

2425 New Holland Pike
Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Other Analysis/Notes
TB-111813	11/18/13 08:00	WQ	HCl	9 - 40 mL Vial	10 day	
SL-696-SA5A-SB-0.0-0.5	11/18/13 08:56	SO	None	2 - SS-Sieve	10 day	
SL-696-SA5A-SB-0.0-0.5	11/18/13 08:56	SO	None	1 - 4 oz glass	10 day	
SL-696-SA5A-SB-4.0-5.0	11/18/13 09:05	SO	None	2 - 16 oz glass	10 day	
SL-696-SA5A-SB-4.0-5.0	11/18/13 09:05	SO	None	2 - Encore	10 day	
SL-709-SA5A-SB-0.0-0.5	11/18/13 10:10	SO	None	2 - SS-Sieve	10 day	
SL-709-SA5A-SB-0.0-0.5	11/18/13 10:10	SO	None	1 - 4 oz glass	10 day	
SL-1009-SA5A-SB-4.0-5.0	11/18/13 10:20	SO	None	2 - 16 oz glass	10 day	
SL-1009-SA5A-SB-4.0-5.0	11/18/13 10:20	SO	None	2 - Encore	10 day	
SL-709-SA5A-SB-4.0-5.0MS	11/18/13 10:15	SO	None	6 - 16 oz glass	10 day	
SL-709-SA5A-SB-4.0-5.0MS	11/18/13 10:15	SO	None	6 - Encore	10 day	
SL-709-SA5A-SB-8.0-9.0	11/18/13 10:25	SO	None	2 - 16 oz glass	10 day	
SL-709-SA5A-SB-8.0-9.0	11/18/13 10:25	SO	None	2 - Encore	10 day	
SL-735-SA5A-SB-2.5-3.5	11/18/13 14:00	SO	None	2 - Encore	10 day	
SL-736-SA5A-SB-3.0-4.0	11/18/13 14:34	SO	None	2 - Encore	10 day	

Special Instructions:

Sampler:

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
	11/18/13	1600								11/19/13	0950

SSFL Phase 3 Chain of Custody

13013 1434844 7282325-40

CDM Smith

Date Shipped: 11/18/2013

Carrier Name: FedEx

Airbill No: 8017 8586 9939

Contact Name: Pam Hartman

Contact Phone: (818)466-8007

COC No:

20131118-02

Cooler #:

2

Lab:

Lancaster

Lab Phone:

717-556-7259

Lab Address

2425 New Holland Pike
Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Other Analysis/Notes
SL-710-SA5A-SB-0.0-0.5	11/18/13 12:50	SO	None	2 - SS-Sleeve	10 day	
SL-710-SA5A-SB-0.0-0.5	11/18/13 12:50	SO	None	1 - 4 oz glass	10 day	
SL-722-SA5A-SB-0.0-0.5	11/18/13 13:22	SO	None	2 - SS-Sleeve	10 day	
SL-722-SA5A-SB-0.0-0.5	11/18/13 13:22	SO	None	1 - 4 oz glass	10 day	
SL-735-SA5A-SB-0.0-0.5	11/18/13 13:57	SO	None	2 - SS-Sleeve	10 day	
SL-735-SA5A-SB-0.0-0.5	11/18/13 13:57	SO	None	1 - 4 oz glass	10 day	
SL-735-SA5A-SB-2.5-3.5	11/18/13 14:00	SO	None	2 - 16 oz glass	10 day	
SL-736-SA5A-SB-0.0-0.5	11/18/13 14:30	SO	None	2 - SS-Sleeve	10 day	
SL-736-SA5A-SB-0.0-0.5	11/18/13 14:30	SO	None	1 - 4 oz glass	10 day	
SL-736-SA5A-SB-3.0-4.0	11/18/13 14:34	SO	None	2 - 16 oz glass	10 day	
						Methyl Mercury 1630
						Organotin
						NDMA 1625
						Formaldehyde 8315
						Cyanide 9012
						Energetics 8330
						Nitrates 300.0/9056
						Terphenyls 8015
						Alcohols 8015
						Glycols 8015
						TPH-EFH 8015
						TPH-GRO 8015
						1,4 Dioxane 8260 SIM
						VOCs 8260
						Pesticides 8081
						Herbicides 8151
						Hex Cr 7196/7199
						pH 9040 (Water)
						pH 9045 (Soil)
						Perchlorate Confirm 6850/6860
						Perchlorate 314.0/331
						PCBs/PCTs 8082
						Dioxins 1613
						1,4 Dioxane 8270 SIM
						PAHs 8270 SIM
						TIC 8270
						SVOC 8270
						Fluoride 300.0/9056
						Mercury 7470 (Water)
						Mercury 7471 (Soil)
						Metals 6010 and 6020

Special Instructions:

Sampler:

Relinquished by	Date	Time	Received by	Date	Time
	11/18/13	1605		11/19/13	0850

Sample Delivery Group

PH132

13013 1435253 7284464-78

2425 New Holland Pike
Lancaster, PA 17601

Special Instructions: _____
Sampler: _____

[illegible]

Bureau / 112013 1010

7284464-78

Lancaster, PA 17601

13013 1435253 7284464-78

Contact Name: Pam Hartman

CarrierName: FedEx

Contact Phone: (818)466-8007

COC No:

20131119-02

Cooler #:

2

Lab:

Lancaster

Lab Phone:

717-556-7259

Lab Address

2425 New Holland Pike
Lancaster, PA 17601

Special Instructions:**Sampler:**[illegible]

Sweeney	1120.13	1010
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Bay

Sample Delivery Group

PH133

13013 1436294 7290754-64

1

[illegible]

Sample Delivery Group

PH134

SSFL Phase 3 Chain of Custody

13013 1430802 7293060-71

CDM Smith

Date Shipped: 11/25/2013

Carrier Name: FedEx

Airbill No:

Contact Name: Pam Hartman

Contact Phone: (818)466-8007

COC No:

Cooler #:

Lab:

Lab Phone:

Lab Address

20131125-01

1

Lancaster

717-556-7259

2425 New Holland Pike

Lancaster, PA 17601

Sample	Date/Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Other Analysis/Notes
SL-584-SA5A-SB-0.0-0.5	11/25/13 08:50	SO	None	2 - SS-Sleeve	10 day	Grain Size ASTM 2488-09a
SL-584-SA5A-SB-0.0-0.5	11/25/13 08:50	SO	None	1 - 4 oz glass	10 day	TOC ASTM D5310
SL-715-SA5A-SB-0.0-0.5MS	11/25/13 10:10	SO	None	6 - SS-Sleeve	10 day	Total Nitrogen ASTM D5373
SL-715-SA5A-SB-0.0-0.5MS	11/25/13 10:10	SO	None	6 - 4 oz glass	10 day	Methyl Mercury 1630
SL-715-SA5A-SB-6.0-7.0	11/25/13 11:50	SO	None	2 - 16 oz glass	10 day	Organotin
SL-715-SA5A-SB-6.0-7.0	11/25/13 11:50	SO	None	2 - Encore	10 day	NDMA 1625
SL-1015-SA5A-SB-0.0-0.5	11/25/13 10:02	SO	None	2 - SS-Sleeve	10 day	Formaldehyde 8315
SL-1015-SA5A-SB-0.0-0.5	11/25/13 10:02	SO	None	2 - 4 oz glass	10 day	Cyanide 9012
TB-112513	11/25/13 08:00	AQ	None	3 - 40 mL Vial	10 day	Energetics 8330
SL-631-SA5A-SB-0.0-0.5	11/25/13 14:20	SO	None	2 - SS-Sleeve	10 day	Nitrates 300.0/9056
SL-631-SA5A-SB-0.0-0.5	11/25/13 14:20	SO	None	1 - 4 oz glass	10 day	Terphenyls 8015
						Alcohols 8015
						Glycols 8015
						TPH-EFH 8015
						TPH-GRO 8015
						1,4 Dioxane 8260 SIM
						VOCs 8260
						Pesticides 8081
						Herbicides 8151
						Hex Cr 7196/7199
						pH 9040 (Water)
						pH 9045 (Soil)
						Perchlorate Confirm 6850/6860
						Perchlorate 314.0/331
						PCBs/PCTs 8082
						Dioxins 1613
						1,4 Dioxane 8270 SIM
						PAHs 8270 SIM
						TIC 8270
						SVOC 8270
						Fluoride 300.0/9056
						Mercury 7470 (Water)
						Mercury 7471 (Soil)
						Metals 6010 and 6020

Special Instructions:

Sampler:

R. Hardman burger

Relinquished by	Date	Time	Received by	Date	Time
<i>[Signature]</i>	11/25/13	1600	<i>[Signature]</i>	11/26/13	0950

Sample Delivery Group

PH135

SSFL Phase 3 Chain of Custody

13013 1437148 7295434-45

CDM Smith

Date Shipped: 11/26/2013

Carrier Name: FedEx

Airbill No: 797258714660

Contact Name: Pam Hartman

Contact Phone: (818)466-8007

COC No:

Cooler #:

Lab:

Lab Phone:

Lab Address

20131126-01

1

Lancaster

717-556-7259

2425 New Holland Pike
Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Other Analysis/Notes
SL-713-SASA-SB-0.0-0.5	11/26/13 08:45	SO	None	2 - SS-Sleeve	10 day	
SL-713-SASA-SB-0.0-0.5	11/26/13 08:45	SO	None	1 - 4 oz glass	10 day	
SL-713-SASA-SB-2.5-3.5	11/26/13 09:00	SO	None	2 - 16 oz glass	10 day	
SL-713-SASA-SB-2.5-3.5	11/26/13 09:00	SO	None	2 - Encore	10 day	
SL-719-SASA-SB-0.0-0.5	11/26/13 09:40	SO	None	2 - SS-Sleeve	10 day	
SL-719-SASA-SB-0.0-0.5	11/26/13 09:40	SO	None	1 - 4 oz glass	10 day	
SL-720-SASA-SB-0.0-0.5	11/26/13 10:10	SO	None	2 - SS-Sleeve	10 day	
SL-720-SASA-SB-0.0-0.5	11/26/13 10:10	SO	None	1 - 4 oz glass	10 day	
SL-724-SASA-SB-0.0-0.5	11/26/13 10:40	SO	None	2 - SS-Sleeve	10 day	
SL-724-SASA-SB-0.0-0.5	11/26/13 10:40	SO	None	1 - 4 oz glass	10 day	
TB-112613	11/26/13 08:00	WQ	HCl	3 - 40 mL Vial	10 day	
SL-738-SASA-SB-0.0-0.5	11/26/13 01:15	SO	None	2 - SS-Sleeve	10 day	
SL-738-SASA-SB-0.0-0.5	11/26/13 01:15	SO	None	1 - 4 oz glass	10 day	
SL-738-SASA-SB-3.0-4.0	11/26/13 01:20	SO	None	2 - 16 oz glass	10 day	
SL-738-SASA-SB-3.0-4.0	11/26/13 01:20	SO	None	2 - Encore	10 day	
SL-767-SASA-SB-0.0-0.5	11/26/13 01:55	SO	None	2 - SS-Sleeve	10 day	
SL-767-SASA-SB-0.0-0.5	11/26/13 01:55	SO	None	1 - 4 oz glass	10 day	
SL-767-SASA-SB-2.5-3.5	11/26/13 02:05	SO	None	2 - 16 oz glass	10 day	
SL-767-SASA-SB-2.5-3.5	11/26/13 02:05	SO	None	1 - Encore	10 day	

Rec by Duane Bay
ELLE
11/27/13
COC: 20131126-01 Page 1 of 1

SSFL Phase 3 Chain of Custody

13013 / 1437148 / 7295434-45

CDM Smith

Date Shipped: 11/26/2013

Carrier Name: FedEx

Airbill No: 797258714660

Contact Name: Pam Hartman

Contact Phone: (818)466-8007

COC No: 20131126-01

Cooler #: 1

Lab: Lancaster

Lab Phone: 717-556-7259

Lab Address: 2425 New Holland Pike
Lancaster, PA 17601

Revised COC NM212713

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Other Analysis/Notes
SL-713-SASA-SB-0.0-0.5	11/26/13 08:45	SO	None	2 - SS-Sleeve	10 day	
SL-713-SASA-SB-0.0-0.5	11/26/13 08:45	SO	None	1 - 4 oz glass	10 day	
SL-713-SASA-SB-2.5-3.5	11/26/13 09:00	SO	None	2 - 16 oz glass	10 day	
SL-713-SASA-SB-2.5-3.5	11/26/13 09:00	SO	None	2 - Encore	10 day	
SL-719-SASA-SB-0.0-0.5	11/26/13 09:40	SO	None	2 - SS-Sleeve	10 day	
SL-719-SASA-SB-0.0-0.5	11/26/13 09:40	SO	None	1 - 4 oz glass	10 day	
SL-720-SASA-SB-0.0-0.5	11/26/13 10:10	SO	None	2 - SS-Sleeve	10 day	
SL-720-SASA-SB-0.0-0.5	11/26/13 10:10	SO	None	1 - 4 oz glass	10 day	
SL-724-SASA-SB-0.0-0.5	11/26/13 10:40	SO	None	2 - SS-Sleeve	10 day	
SL-724-SASA-SB-0.0-0.5	11/26/13 10:40	SO	None	1 - 4 oz glass	10 day	
TB-112613	11/26/13 08:00	WQ	HCl	3 - 40 mL Vial	10 day	
SL-738-SASA-SB-0.0-0.5	11/26/13 01:15	SO	None	2 - SS-Sleeve	10 day	
SL-738-SASA-SB-0.0-0.5	11/26/13 01:15	SO	None	1 - 4 oz glass	10 day	
SL-738-SASA-SB-3.0-4.0	11/26/13 01:20	SO	None	2 - 16 oz glass	10 day	
SL-738-SASA-SB-3.0-4.0	11/26/13 01:20	SO	None	2 - Encore	10 day	
SL-767-SASA-SB-0.0-0.5	11/26/13 01:55	SO	None	2 - SS-Sleeve	10 day	
SL-767-SASA-SB-0.0-0.5	11/26/13 01:55	SO	None	1 - 4 oz glass	10 day	
SL-767-SASA-SB-2.5-3.5	11/26/13 02:05	SO	None	2 - 16 oz glass	10 day	
SL-767-SASA-SB-2.5-3.5	11/26/13 02:05	SO	None	1 - Encore	10 day	

13013 1437148 7295434-45

Contact Phone: (818)466-8007

Lab Address

2425 New Holland Pike
Lancaster, PA 17601

[illegible]

Samplers

Special Instructions:

PH135 Page 106 of 3896
Page 92 of 98

2025 RELEASE UNDER E.O. 14176

13013 1437148 7295434-45

Lancaster, PA 17601

Special Instructions:

[Handwritten signature]

[illegible]

1129131015

13013 1437148 7295434-45

Lab Address

2425 New Holland Pike
Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Other Analysis/Notes
EB2-112613	11/26/13 15:00	WQ	HNO3 pH<2	1 - 250 mL Poly	10 day	
EB2-112613	11/26/13 15:00	WQ	None	1 - 250 mL Amber	10 day	
EB2-112613	11/26/13 15:00	WQ	None	1 - 1 L Amber	10 day	
EB2-112613	11/26/13 15:00	WQ	None	1 - 250 mL Amber	10 day	
EB2-112613	11/26/13 15:00	WQ	None	1 - 250 mL Poly	10 day	
EB2-112613	11/26/13 15:00	WQ	HCl	2 - 1 L Amber	10 day	
EB2-112613	11/26/13 15:00	WQ	HCl	3 - 40 mL Vial	10 day	
EB2-112613	11/26/13 15:00	WQ	None	1 - 250 mL Amber	10 day	
EB2-112613	11/26/13 15:00	WQ	None	1 - 250 mL Amber	10 day	
EB2-112613	11/26/13 15:00	WQ	None	1 - 250 mL Poly	10 day	

Special Instructions:

Sampler:

[illegible]

Sample Delivery Group

PH136

3013 1437889 7298805-07

Lancaster, PA 17601

Special Instructions:

David H. Foster

[illegible]

SSFL Phase 3 Chain of Custody

3013 1437889 7298805-07

CDM Smith

Date Shipped: 12/2/2013

Carrier Name: FedEx

Airbill No: 797290597399

Contact Name: Pam Hartman

Contact Phone: (818)466-8007

COC No:

Cooler #:

Lab:

Lab Phone:

Lab Address

220131202-02

2

Lancaster

717-556-7259

2425 New Holland Pike

Lancaster, PA 17601

Sample	Date/Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Other Analysis/Notes
SL-616-SA5A-SB-0.0-0.5	12/2/13 02:45	SO	None	2 - SS-Sleeve	10 day	Grain Size ASTM 2488-09a
SL-616-SA5A-SB-0.0-0.5	12/2/13 02:45	SO	None	1 - 4 oz glass	10 day	TOC ASTM D5310
SL-679-SA5A-SB-0.0-0.5	12/2/13 01:20	SO	None	2 - SS-Sleeve	10 day	Total Nitrogen ASTM D5373
SL-679-SA5A-SB-0.0-0.5	12/2/13 01:20	SO	None	1 - 4 oz glass	10 day	Methyl Mercury 1630

Special Instructions:

Sampler:

Melinda Hall

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
<i>[Signature]</i>	12/2/13	1630									

Summary 12-3-13 940
Bauer

Sample Delivery Group

PH138

13013 1438204 7300094-115

2425 New Holland Pike
Lancaster, PA 17601

[illegible]PH138 Page 83 of 2715
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DOC: 2013-1203-01, Page 1 of 1

SSFL Phase 3 Chain of Custody

13013 1438204 7300094-115

CDM Smith

DateShipped: 12/3/2013

CarrierName: FedEx

AirbillNo: 7973 0122 0162

Contact Name: Pam Hartman

Contact Phone: (818)466-8007

COC No:

Cooler #:

Lab:

Lab Phone:

Lab Address

20131203-03

2

Lancaster

717-556-7259

2425 New Holland Pike
Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Other Analysis/Notes
SL-509-NBZ-SB-0.0-0.5	12/3/13 13:15	SO	None	2-SS-Sleeve	10 day	Grain Size ASTM 2488-09a
SL-509-NBZ-SB-0.0-0.5	12/3/13 13:15	SO	None	1-4 oz glass	10 day	TOC ASTM D5310
SL-509-NBZ-SB-2.5-3.5MS	12/3/13 13:30	SO	None	6-16 oz glass	10 day	Total Nitrogen ASTM D5373
SL-809-NBZ-SB-2.5-3.5	12/3/13 13:40	SO	None	2-16 oz glass	10 day	Methyl Mercury 1630
SL-510-NBZ-SB-0.0-0.5	12/3/13 14:30	SO	None	1-4 oz glass	10 day	Organotin
SL-510-NBZ-SB-0.0-0.5	12/3/13 14:30	SO	None	2-SS-Sleeve	10 day	NDMA 1625
SL-510-NBZ-SB-4.0-5.0	12/3/13 14:45	SO	None	2-16 oz glass	10 day	Formaldehyde 8315
						Cyanide 9012
						Energetics 8330
						Nitrates 300.0/9056
						Terphenyls 8015
						Alcohols 8015
						Glycols 8015
						TPH-EFH 8015
						TPH-GRO 8015
						1,4 Dioxane 8260 SIM
						VOCs 8260
						Pesticides 8081
						Herbicides 8151
						Hex Cr 7196/7199
						pH 9040 (Water)
						pH 9045 (Soil)
						Perchlorate Confirm 6850/6860
						Perchlorate 314.0/331
						PCBs/PCTs 8082
						Dioxins 1613
						1,4 Dioxane 8270 SIM
						PAHs 8270 SIM
						TIC 8270
						SVOC 8270
						Fluoride 300.0/9056
						Mercury 7470 (Water)
						Mercury 7471 (Soil)
						Metals 6010 and 6020

Special Instructions:

Sampler:

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
	12/3/13	1601									

Samuel Hardy 12-4-13
935

SSFL Phase 3 Chain of Custody

13013 1438204 7300094-115

CDM Smith

Date Shipped: 12/3/2013

Carrier Name: FedEx

Airbill No: 7973 0122 0162

Contact Name: Pam Hartman

Contact Phone: (818)466-8007

COC No:

Cooler #:

Lab:

Lab Phone:

Lab Address:

20131203-02

1

Lancaster

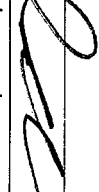
717-556-7259

2425 New Holland Pike
Lancaster, PA 17601

EB-120313	Sample	Date/ Time 12/3/13 15:00	Matrix WQ	Preserv. None	Type/No of Containers 1 - 250 mL Amber	Turn Around Time 10 day	Other Analysis/Notes																										
							Grain Size ASTM 2488-09a	TOC ASTM D5310	Total Nitrogen ASTM D5373	Methyl Mercury 1630	Organotin	NDMA 1625	Formaldehyde 8315	Cyanide 9012	Energetics 8330	Nitrates 300.0/9056	Terphenyls 8015	Alcohols 8015	Glycols 8015	TPH-EFH 8015	TPH-GRO 8015	1,4 Dioxane 8260 SIM	VOCs 8260	Pesticides 8081	Herbicides 8151	Hex Cr 7196/7199	pH 9040 (Water)	pH 9045 (Soil)	Perchlorate Confirm 6850/6860	Perchlorate 314.0/331	PCBs/PCTs 8082	Dioxins 1613	1,4 Dioxane 8270 SIM

Special Instructions:

Sampler:

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time
	12/3/13	1600						

Burnley Ranch, 12-4-13 935