

**Sample Description:** SL-015-SA5C-SB-4.0-5.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-015-SA5C-SB-4.0-5.0

LLI Sample # SW 6162855  
 LLI Group # 1225035  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 14:33

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3301 SDG#: DE033-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
06192	Acetone	67-64-1	5.9 U	5.9	7.0		0.8
06192	Benzene	71-43-2	0.09 U	0.09	3.5		0.8
06192	Bromobenzene	108-86-1	0.11 U	0.11	3.5		0.8
06192	Bromochloromethane	74-97-5	0.29 U	0.29	3.5		0.8
06192	Bromodichloromethane	75-27-4	0.07 U	0.07	3.5		0.8
06192	Bromoform	75-25-2	0.35 U	0.35	3.5		0.8
06192	Bromomethane	74-83-9	0.22 U	0.22	3.5		0.8
06192	2-Butanone	78-93-3	1.1 U	1.1	7.0		0.8
06192	n-Butylbenzene	104-51-8	0.11 U	0.11	3.5		0.8
06192	sec-Butylbenzene	135-98-8	0.05 U	0.05	3.5		0.8
06192	tert-Butylbenzene	98-06-6	0.14 U	0.14	3.5		0.8
06192	Carbon Tetrachloride	56-23-5	0.12 U	0.12	3.5		0.8
06192	Chlorobenzene	108-90-7	0.1 U	0.1	3.5		0.8
06192	Chloroethane	75-00-3	0.11 U	0.11	3.5		0.8
06192	2-Chloroethyl Vinyl Ether	110-75-8	0.26 U	0.26	3.5		0.8
06192	Chloroform	67-66-3	0.44 J	0.11	3.5		0.8
06192	Chloromethane	74-87-3	0.29 U	0.29	3.5		0.8
06192	2-Chlorotoluene	95-49-8	0.12 U	0.12	3.5		0.8
06192	4-Chlorotoluene	106-43-4	0.12 U	0.12	3.5		0.8
06192	Chlorotrifluoroethene	79-38-9	0.44 U	0.44	4.4		0.8
06192	1,2-Dibromo-3-chloropropane	96-12-8	0.62 U	0.62	3.5		0.8
06192	Dibromochloromethane	124-48-1	0.18 U	0.18	3.5		0.8
06192	1,2-Dibromoethane	106-93-4	0.15 U	0.15	3.5		0.8
06192	Dibromomethane	74-95-3	0.21 U	0.21	3.5		0.8
06192	1,2-Dichlorobenzene	95-50-1	0.08 U	0.08	3.5		0.8
06192	1,3-Dichlorobenzene	541-73-1	0.11 U	0.11	3.5		0.8
06192	1,4-Dichlorobenzene	106-46-7	0.14 U	0.14	3.5		0.8
06192	Dichlorodifluoromethane	75-71-8	0.11 U	0.11	3.5		0.8
06192	1,1-Dichloroethane	75-34-3	0.09 U	0.09	3.5		0.8
06192	1,2-Dichloroethane	107-06-2	0.13 U	0.13	3.5		0.8
06192	1,1-Dichloroethene	75-35-4	0.34 U	0.34	3.5		0.8
06192	cis-1,2-Dichloroethene	156-59-2	0.17 U	0.17	3.5		0.8
06192	trans-1,2-Dichloroethene	156-60-5	0.11 U	0.11	3.5		0.8
06192	1,2-Dichloropropane	78-87-5	0.15 U	0.15	3.5		0.8
06192	1,3-Dichloropropane	142-28-9	0.07 U	0.07	3.5		0.8
06192	2,2-Dichloropropane	594-20-7	0.15 U	0.15	3.5		0.8
06192	1,1-Dichloropropene	563-58-6	0.11 U	0.11	3.5		0.8
06192	cis-1,3-Dichloropropene	10061-01-5	0.14 U	0.14	3.5		0.8
06192	trans-1,3-Dichloropropene	10061-02-6	0.15 U	0.15	3.5		0.8
06192	Ethylbenzene	100-41-4	0.05 U	0.05	3.5		0.8
06192	Freon 113	76-13-1	0.1 U	0.1	3.5		0.8
06192	Freon 133a	75-88-7	0.44 U	0.44	4.4		0.8
06192	Hexachlorobutadiene	87-68-3	0.12 U	0.12	3.5		0.8
06192	2-Hexanone	591-78-6	1.4 U	1.4	7.0		0.8
06192	Isopropylbenzene	98-82-8	0.05 U	0.05	3.5		0.8
06192	p-Isopropyltoluene	99-87-6	0.1 U	0.1	3.5		0.8
06192	Methyl Tertiary Butyl Ether	1634-04-4	0.18 U	0.18	3.5		0.8
06192	4-Methyl-2-pentanone	108-10-1	0.34 U	0.34	7.0		0.8
06192	Methylene Chloride	75-09-2	16	0.21	3.5		0.8
06192	n-Propylbenzene	103-65-1	0.06 U	0.06	3.5		0.8

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CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
06192	Styrene	100-42-5	0.09 U	0.09	3.5		0.8
06192	1,1,1,2-Tetrachloroethane	630-20-6	0.1 U	0.1	3.5		0.8
06192	1,1,2,2-Tetrachloroethane	79-34-5	0.20 U	0.20	3.5		0.8
06192	Tetrachloroethene	127-18-4	0.18 U	0.18	3.5		0.8
06192	Toluene	108-88-3	0.15 J	0.07	3.5		0.8
06192	1,2,3-Trichlorobenzene	87-61-6	0.12 U	0.12	3.5		0.8
06192	1,2,4-Trichlorobenzene	120-82-1	0.16 U	0.16	3.5		0.8
06192	1,1,1-Trichloroethane	71-55-6	0.18 U	0.18	3.5		0.8
06192	1,1,2-Trichloroethane	79-00-5	0.24 U	0.24	3.5		0.8
06192	Trichloroethene	79-01-6	0.13 U	0.13	3.5		0.8
06192	Trichlorofluoromethane	75-69-4	0.26 U	0.26	3.5		0.8
06192	1,2,3-Trichloropropane	96-18-4	0.29 U	0.29	3.5		0.8
06192	1,2,4-Trimethylbenzene	95-63-6	0.35 U	0.35	3.5		0.8
06192	1,3,5-Trimethylbenzene	108-67-8	0.09 U	0.09	3.5		0.8
06192	Vinyl Chloride	75-01-4	0.18 U	0.18	3.5		0.8
06192	m+p-Xylene	179601-23-1	0.15 U	0.15	3.5		0.8
06192	o-Xylene	95-47-6	0.15 U	0.15	3.5		0.8
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B SIM</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10326	1,4-Dioxane	123-91-1	5.4 U	5.4	16		24.37
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>EPA 1625C</b>	<b>ng/kg</b>	<b>ng/kg</b>	<b>ng/kg</b>	<b>ng/kg</b>	
11622	N-Nitrosodimethylamine	62-75-9	24.8 J	18.4	36.8		1
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04688	Aniline	62-53-3	180	U 180	550		1
04688	Benzidine	92-87-5	1,300	U 1,300	3,700		1
04688	Benzoic acid	65-85-0	180	U 180	550		1
04688	Benzyl alcohol	100-51-6	180	U 180	550		1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180		1
04688	Carbazole	86-74-8	18	U 18	180		1
04688	4-Chloro-3-methylphenol	59-50-7	37	U 37	180		1
04688	4-Chloroaniline	106-47-8	74	U 74	180		1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180		1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180		1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180		1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180		1
04688	2-Chlorophenol	95-57-8	18	U 18	180		1
04688	4-Chlorophenyl-phenylether	7005-72-3	37	U 37	180		1
04688	Dibenzofuran	132-64-9	18	U 18	180		1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180		1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180		1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180		1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	370		1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180		1
04688	2,4-Dimethylphenol	105-67-9	37	U 37	180		1
04688	3,5-Dimethylphenol	108-68-9	37	U 37	180		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	550		1
04688	2,4-Dinitrophenol	51-28-5	740	U 740	2,200		1

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E3301 SDG#: DE033-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04688	2,4-Dinitrotoluene	121-14-2	37	U 37	180		1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180		1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180		1
04688	Hexachlorobenzene	118-74-1	18	U 18	180		1
04688	Hexachlorobutadiene	87-68-3	74	U 74	180		1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	550		1
04688	Hexachloroethane	67-72-1	18	U 18	180		1
04688	Isophorone	78-59-1	18	U 18	180		1
04688	2-Methylphenol	95-48-7	37	U 37	180		1
04688	4-Methylphenol	106-44-5	37	U 37	180		1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.							
04688	2-Nitroaniline	88-74-4	18	U 18	180		1
04688	3-Nitroaniline	99-09-2	37	U 37	180		1
04688	4-Nitroaniline	100-01-6	74	U 74	180		1
04688	Nitrobenzene	98-95-3	18	U 18	180		1
04688	2-Nitrophenol	88-75-5	18	U 18	180		1
04688	4-Nitrophenol	100-02-7	180	U 180	550		1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180		1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180		1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.							
04688	Pentachlorophenol	87-86-5	180	U 180	550		1
04688	Phenol	108-95-2	18	U 18	180		1
04688	1,2,4-Trichlorobenzene	120-82-1	18	U 18	180		1
04688	2,4,5-Trichlorophenol	95-95-4	37	U 37	180		1
04688	2,4,6-Trichlorophenol	88-06-2	37	U 37	180		1

The LCS recovery is outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: bis(2-chloroisopropyl)ether

GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	ug/kg
10138	Acenaphthene	83-32-9	0.74	U 0.74	1.8	1
10138	Acenaphthylene	208-96-8	0.37	U 0.37	1.8	1
10138	Anthracene	120-12-7	0.37	U 0.37	1.8	1
10138	Benzo(a)anthracene	56-55-3	0.74	U 0.74	1.8	1
10138	Benzo(a)pyrene	50-32-8	0.74	U 0.74	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	1.0	J 0.74	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	0.74	U 0.74	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	0.74	U 0.74	1.8	1
10138	Butylbenzylphthalate	85-68-7	6.6	U 6.6	20	1
10138	Di-n-butylphthalate	84-74-2	6.6	U 6.6	20	1
10138	Chrysene	218-01-9	0.81	J 0.37	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.74	U 0.74	1.8	1
10138	Diethylphthalate	84-66-2	6.6	U 6.6	20	1
10138	Dimethylphthalate	131-11-3	6.6	U 6.6	20	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	35	6.6	20	1

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<b>GC/MS Semivolatiles SW-846 8270C SIM</b>							
10138	Fluoranthene	206-44-0	0.88 J	0.74	1.8	ug/kg	1
10138	Fluorene	86-73-7	0.74 U	0.74	1.8	ug/kg	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.74 U	0.74	1.8	ug/kg	1
10138	1-Methylnaphthalene	90-12-0	0.74 U	0.74	1.8	ug/kg	1
10138	2-Methylnaphthalene	91-57-6	0.74 U	0.74	1.8	ug/kg	1
10138	Naphthalene	91-20-3	0.74 U	0.74	1.8	ug/kg	1
10138	N-Nitrosodimethylamine	62-75-9	0.74 U	0.74	1.8	ug/kg	1
10138	Di-n-octylphthalate	117-84-0	6.6 U	6.6	20	ug/kg	1
10138	Phenanthrene	85-01-8	0.74 U	0.74	1.8	ug/kg	1
10138	Pyrene	129-00-0	0.78 J	0.74	1.8	ug/kg	1
Bis(2-ethylhexyl)phthalate was detected in the method blank at a concentration of 6.5 ug/kg. The blank value was not subtracted from the analytical result.							
<b>GC Volatiles TPH GRO SW-846 8015B mod</b>							
05551	9a TPH by EPA 8015B Gas C5-C12	n.a.	0.2 U	0.2	1	mg/kg	22.2
<b>Explosives SW-846 8330A</b>							
10132	4-Amino-2,6-Dinitrotoluene	19406-51-0	83 U	83	170	1000000	1
10132	2-Amino-4,6-Dinitrotoluene	35572-78-2	55 U	55	170	1000000	1
10132	2,6-Diamino-4-nitrotoluene	59229-75-3	110 U	110	330	1000000	1
10132	2,4-Diamino-6-nitrotoluene	6629-29-4	110 U	110	330	1000000	1
10132	1,3-Dinitrobenzene	99-65-0	55 U	55	170	1000000	1
10132	2,4-Dinitrotoluene	121-14-2	55 U	55	170	1000000	1
10132	2,6-Dinitrotoluene	606-20-2	55 U	55	170	1000000	1
10132	HMX	2691-41-0	140 U	140	410	1000000	1
10132	Nitrobenzene	98-95-3	55 U	55	170	1000000	1
10132	Nitroglycerin	55-63-0	1,100 U	1,100	3,300	1000000	1
10132	2-Nitrotoluene	88-72-2	110 U	110	170	1000000	1
10132	3-Nitrotoluene	99-08-1	140 U	140	170	1000000	1
10132	4-Nitrotoluene	99-99-0	110 U	110	170	1000000	1
10132	PETN	78-11-5	1,100 U	1,100	3,300	1000000	1
10132	RDX	121-82-4	69 U	69	170	1000000	1

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<b>Explosives</b>							
		<b>SW-846 8330A</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10132	Tetryl	479-45-8	85	U 85	170	1000000	1
10132	1,3,5-Trinitrobenzene	99-35-4	55	U 55	170	1000000	1
10132	2,4,6-Trinitrotoluene	118-96-7	55	U 55	170	1000000	1
<b>HPLC Organics</b>							
		<b>SW-846 8315A</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04173	17a Formaldehyde by	8315A 50-00-0	660	U 660	1,700		1
<b>Pesticides/PCBs</b>							
		<b>SW-846 8082</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10225	Aroclor 5432	63496-31-1	5.5	U 5.5	18		5
10225	Aroclor 5442	12642-23-8	5.5	U 5.5	18		5
10225	Aroclor 5460	11126-42-4	5.5	U 5.5	18		5
10225	PCB-1016	12674-11-2	1.8	U 1.8	9.4		5
10225	PCB-1221	11104-28-2	2.8	U 2.8	9.4		5
10225	PCB-1232	11141-16-5	2.9	U 2.9	9.4		5
10225	PCB-1242	53469-21-9	2.8	U 2.8	9.4		5
10225	PCB-1248	12672-29-6	1.8	U 1.8	9.4		5
10225	PCB-1254	11097-69-1	1.8	U 1.8	9.4		5
10225	PCB-1260	11096-82-5	1.8	U 1.8	9.4		5
10225	PCB-1262	37324-23-5	1.8	U 1.8	9.4		5
10225	PCB-1268	11100-14-4	1.8	U 1.8	9.4		5

The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.

Due to the nature of the sample extract matrix, a dilution was used for the analysis. The reporting limits were raised accordingly.

GC Extractable TPH	SW-846 8015B modified	mg/kg	mg/kg	mg/kg	mg/kg
10199	EFH (C12-C14)	n.a.	0.44	U 0.44	1.3
10199	EFH (C15-C20)	n.a.	0.44	U 0.44	1.3
10199	EFH (C21-C30)	n.a.	12	0.44	1.3
10199	EFH (C30 - C40)	n.a.	26	0.44	1.3
10199	EFH (C8-C11)	n.a.	0.44	U 0.44	1.3
<b>GC Miscellaneous</b>					
	<b>SW-846 8015B</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>
10501	Ethanol	64-17-5	110	U 110	550
10501	Isopropanol	67-63-0	110	U 110	550
10501	Methanol	67-56-1	110	U 110	550
<b>GC Miscellaneous</b>					
	<b>SW-846 8015B modified</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>
08283	Diethylene glycol	111-46-6	5.5	U 5.5	14
08283	Ethylene glycol	107-21-1	5.5	U 5.5	14
08283	Propylene glycol	57-55-6	5.5	U 5.5	14

\*—This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-015-SA5C-SB-4.0-5.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-015-SA5C-SB-4.0-5.0

**LLI Sample #** SW 6162855  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 14:33

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3301 SDG#: DE033-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Terphenyls</b>			<b>mg/kg</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
10318	m-Terphenyl	92-06-8	1.7	U	1.7	3.9		1
10318	o-Terphenyl	84-15-1	1.7	U	1.7	3.9		1
10318	p-Terphenyl	92-94-4	1.7	U	1.7	3.9		1
<b>Metals</b>			<b>mg/kg</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
01643	Aluminum	7429-90-5	11,300		5.34	21.2		1
07914	Boron	7440-42-8	2.53	J	0.946	5.31		1
01650	Calcium	7440-70-2	5,110		6.51	21.2		1
01654	Iron	7439-89-6	19,200		5.00	21.2		1
01656	Lithium	7439-93-2	18.5		0.23	2.1		1
01657	Magnesium	7439-95-4	4,340		2.70	10.6		1
06958	Manganese	7439-96-5	247		0.0829	0.531		1
10145	Phosphorus	7723-14-0	467		0.595	10.6		1
01662	Potassium	7440-09-7	2,990		19.1	53.1		1
01667	Sodium	7440-23-5	177		39.6	106		1
07968	Strontium	7440-24-6	25.2		0.0659	0.531		1
06969	Tin	7440-31-5	2.12	J	1.06	10.6		1
06970	Titanium	7440-32-6	1,280		0.823	2.17		2
10146	Zirconium	7440-67-7	1.56	J	0.892	5.31		1
<b>SW-846 6020</b>			<b>mg/kg</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
06124	Antimony	7440-36-0	0.0688	J	0.0656	0.219		2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.								
06125	Arsenic	7440-38-2	6.65		0.0656	0.438		2
06126	Barium	7440-39-3	115		0.118	0.438		2
06127	Beryllium	7440-41-7	0.843		0.0175	0.109		2
06128	Cadmium	7440-43-9	0.153		0.0394	0.109		2
06131	Chromium	7440-47-3	34.0		0.131	0.438		2
06132	Cobalt	7440-48-4	9.37		0.0219	0.109		2
06133	Copper	7440-50-8	11.4		0.0722	0.438		2
06135	Lead	7439-92-1	9.41		0.0114	0.219		2
06138	Molybdenum	7439-98-7	0.450		0.0547	0.109		2
06139	Nickel	7440-02-0	14.8		0.109	0.438		2
06141	Selenium	7782-49-2	0.256	J	0.0438	0.438		2
06142	Silver	7440-22-4	0.0235	J	0.0131	0.109		2
06145	Thallium	7440-28-0	0.345		0.0328	0.109		2
06148	Vanadium	7440-62-2	68.8		0.0241	0.109		2
06149	Zinc	7440-66-6	76.6		0.613	3.28		2
<b>SW-846 7471A</b>			<b>mg/kg</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
00159	Mercury	7439-97-6	0.0031	U	0.0031	0.107		1
<b>Wet Chemistry</b>			<b>mg/kg</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	3.0		0.88	1.1		1
07336	11a Anions by 300.0 - Nitrate	14797-55-8	6.2		0.88	1.7		1

\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.



# Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

**Sample Description:** SL-015-SA5C-SB-4.0-5.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-015-SA5C-SB-4.0-5.0

**LLI Sample #** SW 6162855  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 14:33  
 Submitted: 12/10/2010 09:15  
 Reported: 01/21/2011 15:50

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

E3301 SDG#: DE033-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Wet Chemistry EPA 314.0</b>							
10147	7a Perchlorate EPA 314.0	14797-73-0	9.9 U	9.9	33.1	ug/kg	1
<b>SW-846 7199</b>							
05892	3a Cr VI by EPA 7199	18540-29-9	0.36 J	0.22	1.1	mg/kg	1
<b>SW-846 9012B</b>							
05895	21a Cyanide by 9012B	57-12-5	0.20 U	0.20	0.55	mg/kg	1
<b>ASTM D1498</b>							
01821	Oxidation Reduction Potential	n.a.	510	10.0	10.0	mV	1
The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.							
<b>SW-846 9045C modified</b>							
00394	22a pH by 9045C	n.a.	8.12	0.0100	0.0100	Std. Units	1
<b>Wet Chemistry EPA 160.3 modified</b>							
11624	28a Moisture Content by 160.3	n.a.	9.5	0.50	0.50	%	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.							

### General Sample Comments

State of California Lab Certification No. 2501  
 The volatile analysis was performed on soil from SL-015-SA5C-SB-4.5.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06192	1a Volatile Organics EPA 8260B	SW-846 8260B	1	B103481AA	12/14/2010 12:21	Nicholas R Rossi	0.8
10326	14a 1,4-Dioxane by 8260B SIM	SW-846 8260B SIM	1	E103492AA	12/15/2010 15:38	Jason M Long	24.37
08390	GC/MS - HL Encore Prep	SW-846 5035	1	201034723285	12/10/2010 12:47	Stephanie A Sanchez	n.a.
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035	1	201034723283	12/10/2010 12:51	Stephanie A Sanchez	n.a.
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035	2	201034723283	12/10/2010 12:51	Stephanie A Sanchez	n.a.

\*-This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description: SL-015-SA5C-SB-4.0-5.0 Soil**  
**SSFL Area IV Collocated Soil Sampling**  
**SL-015-SA5C-SB-4.0-5.0**

**LLI Sample # SW 6162855**  
**LLI Group # 1225035**  
**Account # 13013**

**Project Name: SSFL Area IV Collocated Soil Sampling**

Collected: 12/08/2010 14:33

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3301 SDG#: DE033-01

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07578	GC/MS-HL Encore Prep-NC	SW-846 5035	1	201034723285	12/10/2010 12:47	Stephanie A Sanchez	n.a.
11622	19a NDMA by 1625C	EPA 1625C	1	10350SLF026	12/24/2010 21:42	Timothy J Trees	1
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10348SLG026	12/22/2010 10:15	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10349SLF026	12/21/2010 16:54	Mark A Clark	1
11630	NDMA Soil Microwave	SW-846 3546	1	10350SLF026	12/17/2010 01:00	Sherry L Morrow	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10349SLF026	12/16/2010 07:00	Joseph S Feister	1
00381	BNA Soil Sonication	SW-846 3550B	1	10348SLG026	12/15/2010 07:05	Joseph S Feister	1
05551	9a TPH by EPA 8015B Gas C5-C12	TPH GRO SW-846 8015B mod	1	10340B34B	12/14/2010 11:33	Elizabeth J Marin	22.2
06130	GC - 5 g HL Encore Prep	SW-846 5035	1	201034723285	12/10/2010 12:47	Stephanie A Sanchez	n.a.
10132	20a Energetics by 8330A	SW-846 8330A	1	103510022A	12/21/2010 02:34	Michele D Hamilton	1
04173	17a Formaldehyde by 8315A	SW-846 8315A	1	103480008A	12/17/2010 17:14	Michele D Hamilton	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	103490013A	12/19/2010 07:42	Lindsey K Lafferty	5
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	103490013A	12/15/2010 21:05	Karen L Beyer	1
05876	Formaldehyde Solid Extraction	SW-846 8315A	1	103480008A	12/14/2010 15:00	Kelli M Barto	1
11137	Energetics Extraction	SW-846 8330	1	103510022A	12/19/2010 17:00	Wanda F Oswald	1
10199	9a TPH by EPA 8015B Oil/Diesel	SW-846 8015B modified	1	103490010A	12/21/2010 06:45	Heather E Williams	1
10501	25a Alcohols by 8015B	SW-846 8015B	1	103480002A	12/14/2010 18:43	Dustin A Underkoffler	1
08283	27a Glycols by 8015B	SW-846 8015B modified	1	103480018A	12/14/2010 23:43	Robert Brown	1
10318	26a Terphenyls by 8015B	SW-846 8015B	1	103500031A	12/18/2010 01:17	Heather E Williams	1
11238	EPH Extraction - Soils	SW-846 3550B	1	103490010A	12/15/2010 19:30	Sally L Appleyard	1
10303	Terphenyls soil prep	SW-846 3550B	1	103500031A	12/17/2010 07:00	Kerrie A Freeburn	1
11551	Direct Inj. Solids Glycol Ext.	SW-846 8015B	1	103480018A	12/14/2010 13:00	Dustin A Underkoffler	1
00380	Direct Injection Solids Ext	SW-846 8015B	1	103480002A	12/14/2010 13:00	Dustin A Underkoffler	1
01643	Aluminum	SW-846 6010B	1	103495708002	12/16/2010 16:55	Eric L Eby	1
07914	Boron	SW-846 6010B	1	103495708002	12/16/2010 04:54	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	103495708002	12/16/2010 04:54	Tara L Snyder	1
01654	Iron	SW-846 6010B	1	103495708002	12/16/2010 04:54	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	103495708002	12/16/2010 04:54	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	103495708002	12/16/2010 04:54	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	103495708002	12/16/2010 04:54	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	103495708002	12/16/2010 04:54	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	103495708002	12/16/2010 04:54	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	103495708002	12/16/2010 04:54	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	103495708002	12/16/2010 04:54	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	103495708002	12/16/2010 04:54	Tara L Snyder	1

\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-015-SA5C-SB-4.0-5.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-015-SA5C-SB-4.0-5.0

**LLI Sample #** SW 6162855  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 14:33

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3301 SDG#: DE033-01

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06970	Titanium	SW-846 6010B	1	103505708003	12/20/2010 16:50	John P Hook	2
10146	Zirconium	SW-846 6010B	1	103495708002	12/16/2010 04:54	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	103491026002A	12/17/2010 15:19	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103491026002A	12/17/2010 15:19	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103491026002D	12/17/2010 15:19	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103491026002A	12/17/2010 15:19	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103491026002A	12/17/2010 15:19	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103491026002A	12/17/2010 15:19	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103491026002A	12/17/2010 15:19	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103491026002A	12/17/2010 15:19	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103491026002A	12/17/2010 15:19	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103491026002C	12/17/2010 15:19	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103491026002A	12/17/2010 15:19	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103491026002B	12/17/2010 15:19	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103491026002A	12/17/2010 15:19	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103491026002A	12/17/2010 15:19	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103491026002A	12/17/2010 15:19	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	103491026002A	12/17/2010 15:19	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	103495711002	12/15/2010 19:43	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	103495708002	12/15/2010 10:35	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	103505708003	12/17/2010 19:17	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103491026002	12/15/2010 11:08	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	103495711002	12/15/2010 12:17	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10352352201A	12/20/2010 14:53	Ashley M Adams	1
07336	11a Anions by 300.0 - Nitrate	EPA 300.0	1	10352352201A	12/20/2010 14:53	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10354354201B	12/21/2010 22:58	Venia B McFadden	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	10356243201A	12/28/2010 18:31	Ashley M Adams	1
05895	21a Cyanide by 9012B	SW-846 9012B	1	10355102202A	12/21/2010 20:14	Joseph E McKenzie	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10352352201A	12/19/2010 16:30	Joseph E McKenzie	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10354354201B	12/20/2010 19:00	Carolyn M Mastropietro	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	10355102202A	12/21/2010 15:35	Carolyn M Mastropietro	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10348182101A	12/14/2010 09:00	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10348039401A	12/14/2010 09:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10356243201A	12/22/2010 20:10	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	1	10364162401A	12/31/2010 05:52	William C Schwebel	1

\*—This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-015-SA5C-SB-9.0-10.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-015-SA5C-SB-9.0-10.0

LLI Sample # SW 6162856  
 LLI Group # 1225035  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 14:40

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3302 SDG#: DE033-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
06192	Acetone	67-64-1	7.5 U	7.5	9.0		1.03
06192	Benzene	71-43-2	0.11 U	0.11	4.5		1.03
06192	Bromobenzene	108-86-1	0.15 U	0.15	4.5		1.03
06192	Bromochloromethane	74-97-5	0.37 U	0.37	4.5		1.03
06192	Bromodichloromethane	75-27-4	0.09 U	0.09	4.5		1.03
06192	Bromoform	75-25-2	0.45 U	0.45	4.5		1.03
06192	Bromomethane	74-83-9	0.28 U	0.28	4.5		1.03
06192	2-Butanone	78-93-3	1.4 U	1.4	9.0		1.03
06192	n-Butylbenzene	104-51-8	0.13 U	0.13	4.5		1.03
06192	sec-Butylbenzene	135-98-8	0.07 U	0.07	4.5		1.03
06192	tert-Butylbenzene	98-06-6	0.18 U	0.18	4.5		1.03
06192	Carbon Tetrachloride	56-23-5	0.16 U	0.16	4.5		1.03
06192	Chlorobenzene	108-90-7	0.12 U	0.12	4.5		1.03
06192	Chloroethane	75-00-3	0.15 U	0.15	4.5		1.03
06192	2-Chloroethyl Vinyl Ether	110-75-8	0.34 U	0.34	4.5		1.03
06192	Chloroform	67-66-3	0.13 U	0.13	4.5		1.03
06192	Chloromethane	74-87-3	0.37 U	0.37	4.5		1.03
06192	2-Chlorotoluene	95-49-8	0.16 U	0.16	4.5		1.03
06192	4-Chlorotoluene	106-43-4	0.16 U	0.16	4.5		1.03
06192	Chlorotrifluoroethene	79-38-9	0.56 U	0.56	5.6		1.03
06192	1,2-Dibromo-3-chloropropane	96-12-8	0.78 U	0.78	4.5		1.03
06192	Dibromochloromethane	124-48-1	0.22 U	0.22	4.5		1.03
06192	1,2-Dibromoethane	106-93-4	0.19 U	0.19	4.5		1.03
06192	Dibromomethane	74-95-3	0.27 U	0.27	4.5		1.03
06192	1,2-Dichlorobenzene	95-50-1	0.10 U	0.10	4.5		1.03
06192	1,3-Dichlorobenzene	541-73-1	0.13 U	0.13	4.5		1.03
06192	1,4-Dichlorobenzene	106-46-7	0.18 U	0.18	4.5		1.03
06192	Dichlorodifluoromethane	75-71-8	0.13 U	0.13	4.5		1.03
06192	1,1-Dichloroethane	75-34-3	0.11 U	0.11	4.5		1.03
06192	1,2-Dichloroethane	107-06-2	0.17 U	0.17	4.5		1.03
06192	1,1-Dichloroethene	75-35-4	0.44 U	0.44	4.5		1.03
06192	cis-1,2-Dichloroethene	156-59-2	0.21 U	0.21	4.5		1.03
06192	trans-1,2-Dichloroethene	156-60-5	0.13 U	0.13	4.5		1.03
06192	1,2-Dichloropropane	78-87-5	0.19 U	0.19	4.5		1.03
06192	1,3-Dichloropropane	142-28-9	0.09 U	0.09	4.5		1.03
06192	2,2-Dichloropropane	594-20-7	0.19 U	0.19	4.5		1.03
06192	1,1-Dichloropropene	563-58-6	0.15 U	0.15	4.5		1.03
06192	cis-1,3-Dichloropropene	10061-01-5	0.18 U	0.18	4.5		1.03
06192	trans-1,3-Dichloropropene	10061-02-6	0.19 U	0.19	4.5		1.03
06192	Ethylbenzene	100-41-4	0.07 U	0.07	4.5		1.03
06192	Freon 113	76-13-1	0.12 U	0.12	4.5		1.03
06192	Freon 133a	75-88-7	0.56 U	0.56	5.6		1.03
06192	Hexachlorobutadiene	87-68-3	0.16 U	0.16	4.5		1.03
06192	2-Hexanone	591-78-6	1.8 U	1.8	9.0		1.03
06192	Isopropylbenzene	98-82-8	0.07 U	0.07	4.5		1.03
06192	p-Isopropyltoluene	99-87-6	0.12 U	0.12	4.5		1.03
06192	Methyl Tertiary Butyl Ether	1634-04-4	0.24 U	0.24	4.5		1.03
06192	4-Methyl-2-pentanone	108-10-1	0.44 U	0.44	9.0		1.03
06192	Methylene Chloride	75-09-2	2.2 J	0.27	4.5		1.03
06192	n-Propylbenzene	103-65-1	0.08 U	0.08	4.5		1.03

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**Sample Description:** SL-015-SA5C-SB-9.0-10.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-015-SA5C-SB-9.0-10.0

LLI Sample # SW 6162856  
 LLI Group # 1225035  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 14:40

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3302 SDG#: DE033-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS Volatiles SW-846 8260B</b>							
06192	Styrene	100-42-5	0.11 U	0.11	4.5		1.03
06192	1,1,1,2-Tetrachloroethane	630-20-6	0.12 U	0.12	4.5		1.03
06192	1,1,2,2-Tetrachloroethane	79-34-5	0.26 U	0.26	4.5		1.03
06192	Tetrachloroethene	127-18-4	0.22 U	0.22	4.5		1.03
06192	Toluene	108-88-3	0.17 J	0.09	4.5		1.03
06192	1,2,3-Trichlorobenzene	87-61-6	0.16 U	0.16	4.5		1.03
06192	1,2,4-Trichlorobenzene	120-82-1	0.20 U	0.20	4.5		1.03
06192	1,1,1-Trichloroethane	71-55-6	0.22 U	0.22	4.5		1.03
06192	1,1,2-Trichloroethane	79-00-5	0.30 U	0.30	4.5		1.03
06192	Trichloroethene	79-01-6	0.17 U	0.17	4.5		1.03
06192	Trichlorofluoromethane	75-69-4	0.32 U	0.32	4.5		1.03
06192	1,2,3-Trichloropropane	96-18-4	0.37 U	0.37	4.5		1.03
06192	1,2,4-Trimethylbenzene	95-63-6	0.45 U	0.45	4.5		1.03
06192	1,3,5-Trimethylbenzene	108-67-8	0.11 U	0.11	4.5		1.03
06192	Vinyl Chloride	75-01-4	0.22 U	0.22	4.5		1.03
06192	m+p-Xylene	179601-23-1	0.19 U	0.19	4.5		1.03
06192	o-Xylene	95-47-6	0.19 U	0.19	4.5		1.03
<b>GC/MS Volatiles SW-846 8260B SIM</b>							
10326	1,4-Dioxane	123-91-1	5.1 U	5.1	15		23.54
<b>GC/MS Semivolatiles EPA 1625C</b>							
11622	N-Nitrosodimethylamine	62-75-9	31.3 J	18.1	36.3		1
<b>GC/MS Semivolatiles SW-846 8270C</b>							
04688	Aniline	62-53-3	180	U 180	540		1
04688	Benzidine	92-87-5	1,300	U 1,300	3,600		1
04688	Benzoic acid	65-85-0	180	U 180	540		1
04688	Benzyl alcohol	100-51-6	180	U 180	540		1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180		1
04688	Carbazole	86-74-8	18	U 18	180		1
04688	4-Chloro-3-methylphenol	59-50-7	36	U 36	180		1
04688	4-Chloroaniline	106-47-8	73	U 73	180		1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180		1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180		1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180		1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180		1
04688	2-Chlorophenol	95-57-8	18	U 18	180		1
04688	4-Chlorophenyl-phenylether	7005-72-3	36	U 36	180		1
04688	Dibenzofuran	132-64-9	18	U 18	180		1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180		1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180		1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180		1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	360		1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180		1
04688	2,4-Dimethylphenol	105-67-9	36	U 36	180		1
04688	3,5-Dimethylphenol	108-68-9	36	U 36	180		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	540		1
04688	2,4-Dinitrophenol	51-28-5	730	U 730	2,200		1

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**Sample Description:** SL-015-SA5C-SB-9.0-10.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-015-SA5C-SB-9.0-10.0

LLI Sample # SW 6162856  
 LLI Group # 1225035  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 14:40

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3302 SDG#: DE033-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04688	2,4-Dinitrotoluene	121-14-2	36	U 36	180		1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180		1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180		1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	24	J 18	360		1
04688	Hexachlorobenzene	118-74-1	18	U 18	180		1
04688	Hexachlorobutadiene	87-68-3	73	U 73	180		1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	540		1
04688	Hexachloroethane	67-72-1	18	U 18	180		1
04688	Isophorone	78-59-1	18	U 18	180		1
04688	2-Methylphenol	95-48-7	36	U 36	180		1
04688	4-Methylphenol	106-44-5	36	U 36	180		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	18	U 18	180		1
04688	3-Nitroaniline	99-09-2	36	U 36	180		1
04688	4-Nitroaniline	100-01-6	73	U 73	180		1
04688	Nitrobenzene	98-95-3	18	U 18	180		1
04688	2-Nitrophenol	88-75-5	18	U 18	180		1
04688	4-Nitrophenol	100-02-7	180	U 180	540		1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180		1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	180	U 180	540		1
04688	Phenol	108-95-2	18	U 18	180		1
04688	1,2,4-Trichlorobenzene	120-82-1	18	U 18	180		1
04688	2,4,5-Trichlorophenol	95-95-4	36	U 36	180		1
04688	2,4,6-Trichlorophenol	88-06-2	36	U 36	180		1

The LCS recovery is outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance:  
 bis(2-chloroisopropyl)ether

GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	ug/kg
10138	Acenaphthene	83-32-9	0.73	U 0.73	1.8	1
10138	Acenaphthylene	208-96-8	0.36	U 0.36	1.8	1
10138	Anthracene	120-12-7	0.36	U 0.36	1.8	1
10138	Benzo(a)anthracene	56-55-3	0.80	J 0.73	1.8	1
10138	Benzo(a)pyrene	50-32-8	0.73	U 0.73	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	1.2	J 0.73	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	0.73	U 0.73	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	0.73	U 0.73	1.8	1
10138	Butylbenzylphthalate	85-68-7	6.5	U 6.5	20	1
10138	Di-n-butylphthalate	84-74-2	6.5	U 6.5	20	1
10138	Chrysene	218-01-9	1.4	J 0.36	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.73	U 0.73	1.8	1
10138	Diethylphthalate	84-66-2	6.5	U 6.5	20	1
10138	Dimethylphthalate	131-11-3	6.5	U 6.5	20	1

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**Sample Description:** SL-015-SA5C-SB-9.0-10.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-015-SA5C-SB-9.0-10.0

**LLI Sample #** SW 6162856  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 14:40

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3302 SDG#: DE033-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS Semivolatiles SW-846 8270C SIM</b>							
10138	Fluoranthene	206-44-0	1.8	0.73	1.8		1
10138	Fluorene	86-73-7	0.73 U	0.73	1.8		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.73 U	0.73	1.8		1
10138	1-Methylnaphthalene	90-12-0	0.73 U	0.73	1.8		1
10138	2-Methylnaphthalene	91-57-6	0.73 U	0.73	1.8		1
10138	Naphthalene	91-20-3	0.73 U	0.73	1.8		1
10138	N-Nitrosodimethylamine	62-75-9	0.73 U	0.73	1.8		1
10138	Di-n-octylphthalate	117-84-0	6.5 U	6.5	20		1
10138	Phenanthrene	85-01-8	0.73 U	0.73	1.8		1
10138	Pyrene	129-00-0	1.9	0.73	1.8		1
<b>GC Volatiles TPH GRO SW-846 8015B mod</b>							
05551	9a TPH by EPA 8015B Gas C5-C12	n.a.	0.2 U	0.2	1.1		24.46
<b>Explosives SW-846 8330A</b>							
10132	4-Amino-2,6-Dinitrotoluene	19406-51-0	82	U 82	160	1000000	1
10132	2-Amino-4,6-Dinitrotoluene	35572-78-2	54	U 54	160	1000000	1
10132	2,6-Diamino-4-nitrotoluene	59229-75-3	110	U 110	330	1000000	1
10132	2,4-Diamino-6-nitrotoluene	6629-29-4	110	U 110	330	1000000	1
10132	1,3-Dinitrobenzene	99-65-0	54	U 54	160	1000000	1
10132	2,4-Dinitrotoluene	121-14-2	54	U 54	160	1000000	1
10132	2,6-Dinitrotoluene	606-20-2	54	U 54	160	1000000	1
10132	HMX	2691-41-0	140	U 140	410	1000000	1
10132	Nitrobenzene	98-95-3	54	U 54	160	1000000	1
10132	Nitroglycerin	55-63-0	1,100	U 1,100	3,300	1000000	1
10132	2-Nitrotoluene	88-72-2	110	U 110	160	1000000	1
10132	3-Nitrotoluene	99-08-1	140	U 140	160	1000000	1
10132	4-Nitrotoluene	99-99-0	110	U 110	160	1000000	1
10132	PETN	78-11-5	1,100	U 1,100	3,300	1000000	1
10132	RDX	121-82-4	68	U 68	160	1000000	1
10132	Tetryl	479-45-8	83	U 83	160	1000000	1

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 SSFL Area IV Collocated Soil Sampling  
 SL-015-SA5C-SB-9.0-10.0

LLI Sample # SW 6162856  
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E3302 SDG#: DE033-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Explosives</b>							
	<b>SW-846 8330A</b>		<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10132	1,3,5-Trinitrobenzene	99-35-4	54	U 54	160	1000000	1
10132	2,4,6-Trinitrotoluene	118-96-7	54	U 54	160	1000000	1
<b>HPLC Organics</b>							
	<b>SW-846 8315A</b>		<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04173	17a Formaldehyde by 8315A	50-00-0	650	U 650	1,600		1
<b>Pesticides/PCBs</b>							
	<b>SW-846 8082</b>		<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10225	Aroclor 5432	63496-31-1	1.1	U 1.1	3.6		1
10225	Aroclor 5442	12642-23-8	1.1	U 1.1	3.6		1
10225	Aroclor 5460	11126-42-4	1.1	U 1.1	3.6		1
10225	PCB-1016	12674-11-2	0.36	U 0.36	1.8		1
10225	PCB-1221	11104-28-2	0.54	U 0.54	1.8		1
10225	PCB-1232	11141-16-5	0.57	U 0.57	1.8		1
10225	PCB-1242	53469-21-9	0.54	U 0.54	1.8		1
10225	PCB-1248	12672-29-6	1.8	J 0.36	1.8		1
10225	PCB-1254	11097-69-1	0.68	J 0.36	1.8		1
10225	PCB-1260	11096-82-5	0.65	J 0.36	1.8		1
10225	PCB-1262	37324-23-5	0.36	U 0.36	1.8		1
10225	PCB-1268	11100-14-4	0.36	U 0.36	1.8		1
The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.							
<b>GC Extractable TPH</b>							
	<b>SW-846 8015B modified</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
10199	EFH (C12-C14)	n.a.	0.44	U 0.44	1.3		1
10199	EFH (C15-C20)	n.a.	0.44	U 0.44	1.3		1
10199	EFH (C21-C30)	n.a.	7.9	0.44	1.3		1
10199	EFH (C30 - C40)	n.a.	19	0.44	1.3		1
10199	EFH (C8-C11)	n.a.	0.44	U 0.44	1.3		1
<b>GC Miscellaneous</b>							
	<b>SW-846 8015B</b>		<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10501	Ethanol	64-17-5	110	U 110	540		1
10501	Isopropanol	67-63-0	110	U 110	540		1
10501	Methanol	67-56-1	110	U 110	540		1
<b>GC Miscellaneous</b>							
	<b>SW-846 8015B modified</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
08283	Diethylene glycol	111-46-6	5.4	U 5.4	14		1
08283	Ethylene glycol	107-21-1	5.4	U 5.4	14		1
08283	Propylene glycol	57-55-6	5.4	U 5.4	14		1
<b>Terphenyls</b>							
	<b>SW-846 8015B</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
10318	m-Terphenyl	92-06-8	1.6	U 1.6	3.8		1
10318	o-Terphenyl	84-15-1	1.6	U 1.6	3.8		1
10318	p-Terphenyl	92-94-4	1.6	U 1.6	3.8		1

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 SL-015-SA5C-SB-9.0-10.0

LLI Sample # SW 6162856  
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Submitted: 12/10/2010 09:15

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E3302 SDG#: DE033-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Metals</b>							
<b>SW-846 6010B</b>			<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
01643	Aluminum	7429-90-5	11,500	5.37	21.3		1
07914	Boron	7440-42-8	2.75 J	0.949	5.33		1
01650	Calcium	7440-70-2	3,440	6.54	21.3		1
01654	Iron	7439-89-6	16,800	5.02	21.3		1
01656	Lithium	7439-93-2	17.6	0.23	2.1		1
01657	Magnesium	7439-95-4	3,330	2.71	10.7		1
06958	Manganese	7439-96-5	237	0.0832	0.533		1
10145	Phosphorus	7723-14-0	284	0.597	10.7		1
01662	Potassium	7440-09-7	2,480	19.2	53.3		1
01667	Sodium	7440-23-5	134	39.8	107		1
07968	Strontium	7440-24-6	15.7	0.0661	0.533		1
06969	Tin	7440-31-5	2.01 J	1.07	10.7		1
06970	Titanium	7440-32-6	1,150	0.795	2.09		2
10146	Zirconium	7440-67-7	0.933 J	0.896	5.33		1
<b>SW-846 6020</b>			<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
06124	Antimony	7440-36-0	0.0640 U	0.0640	0.213		2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.							
06125	Arsenic	7440-38-2	5.33	0.0640	0.427		2
06126	Barium	7440-39-3	100	0.115	0.427		2
06127	Beryllium	7440-41-7	0.546	0.0171	0.107		2
06128	Cadmium	7440-43-9	0.137	0.0384	0.107		2
06131	Chromium	7440-47-3	18.1	0.128	0.427		2
06132	Cobalt	7440-48-4	6.10	0.0213	0.107		2
06133	Copper	7440-50-8	8.33	0.0704	0.427		2
06135	Lead	7439-92-1	7.09	0.0111	0.213		2
06138	Molybdenum	7439-98-7	0.515	0.0533	0.107		2
06139	Nickel	7440-02-0	10.5	0.107	0.427		2
06141	Selenium	7782-49-2	0.115 J	0.0427	0.427		2
06142	Silver	7440-22-4	0.0229 J	0.0128	0.107		2
06145	Thallium	7440-28-0	0.366	0.0320	0.107		2
06148	Vanadium	7440-62-2	36.4	0.0235	0.107		2
06149	Zinc	7440-66-6	78.1	0.597	3.20		2
<b>SW-846 7471A</b>			<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
00159	Mercury	7439-97-6	0.0029 U	0.0029	0.101		1
<b>Wet Chemistry</b>							
<b>EPA 300.0</b>			<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	3.6	0.87	1.1		1
07336	11a Anions by 300.0 - Nitrate	14797-55-8	1.5 J	0.87	1.6		1
<b>EPA 314.0</b>			<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.8 U	9.8	32.6		1
<b>SW-846 7199</b>			<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
05892	3a Cr VI by EPA 7199	18540-29-9	1.2	0.22	1.1		1

\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-015-SA5C-SB-9.0-10.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-015-SA5C-SB-9.0-10.0

**LLI Sample #** SW 6162856  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 14:40

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3302 SDG#: DE033-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Wet Chemistry</b>							
		<b>SW-846 9012B</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
05895	21a Cyanide by 9012B	57-12-5	0.19 U	0.19	0.53		1
		<b>ASTM D1498</b>	<b>mV</b>	<b>mV</b>	<b>mV</b>	<b>mV</b>	
01821	Oxidation Reduction Potential	n.a.	461	10.0	10.0		1
	The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.						
		<b>SW-846 9045C modified</b>	<b>Std. Units</b>	<b>Std. Units</b>	<b>Std. Units</b>	<b>Std. Units</b>	
00394	22a pH by 9045C	n.a.	8.51	0.0100	0.0100		1
<b>Wet Chemistry</b>							
		<b>EPA 160.3 modified</b>	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>	
11624	28a Moisture Content by 160.3	n.a.	8.1	0.50	0.50		1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

### General Sample Comments

State of California Lab Certification No. 2501  
 The volatile analysis was performed on soil from SL-015-SA5C-SB-9.5.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06192	1a Volatile Organics EPA 8260B	SW-846 8260B	1	B103481AA	12/14/2010 12:44	Nicholas R Rossi	1.03
10326	14a 1,4-Dioxane by 8260B SIM	SW-846 8260B SIM	1	E103492AA	12/15/2010 15:57	Jason M Long	23.54
08390	GC/MS - HL Encore Prep	SW-846 5035	1	201034723285	12/10/2010 12:50	Stephanie A Sanchez	n.a.
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035	1	201034723283	12/10/2010 12:51	Stephanie A Sanchez	n.a.
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035	2	201034723283	12/10/2010 12:51	Stephanie A Sanchez	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035	1	201034723285	12/10/2010 12:50	Stephanie A Sanchez	n.a.
11622	19a NDMA by 1625C	EPA 1625C	1	10350SLF026	12/24/2010 21:59	Timothy J Trees	1
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10348SLG026	12/22/2010 10:41	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10349SLF026	12/22/2010 06:31	Mark A Clark	1
11630	NDMA Soil Microwave	SW-846 3546	1	10350SLF026	12/17/2010 01:00	Sherry L Morrow	1

\*=This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description: SL-015-SA5C-SB-9.0-10.0 Soil**  
**SSFL Area IV Collocated Soil Sampling**  
**SL-015-SA5C-SB-9.0-10.0**

**LLI Sample # SW 6162856**  
**LLI Group # 1225035**  
**Account # 13013**

**Project Name: SSFL Area IV Collocated Soil Sampling**

Collected: 12/08/2010 14:40

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3302 SDG#: DE033-02

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10349SLF026	12/16/2010 07:00	Joseph S Feister	1
00381	BNA Soil Sonication	SW-846 3550B	1	10348SLG026	12/15/2010 07:05	Joseph S Feister	1
05551	9a TPH by EPA 8015B Gas C5-C12	TPH GRO SW-846 8015B mod	1	10340B34B	12/14/2010 12:09	Elizabeth J Marin	24.46
06130	GC - 5 g HL Encore Prep	SW-846 5035	1	201034723285	12/10/2010 12:50	Stephanie A Sanchez	n.a.
10132	20a Energetics by 8330A	SW-846 8330A	1	103510022A	12/21/2010 03:16	Michele D Hamilton	1
04173	17a Formaldehyde by 8315A	SW-846 8315A	1	103480008A	12/17/2010 17:24	Michele D Hamilton	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	103490013A	12/19/2010 08:00	Lindsey K Lafferty	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	103490013A	12/15/2010 21:05	Karen L Beyer	1
05876	Formaldehyde Solid Extraction	SW-846 8315A	1	103480008A	12/14/2010 15:00	Kelli M Barto	1
11137	Energetics Extraction	SW-846 8330	1	103510022A	12/19/2010 17:00	Wanda F Oswald	1
10199	9a TPH by EPA 8015B Oil/Diesel	SW-846 8015B modified	1	103490010A	12/21/2010 07:10	Heather E Williams	1
10501	25a Alcohols by 8015B	SW-846 8015B	1	103480002A	12/14/2010 18:58	Dustin A Underkoffler	1
08283	27a Glycols by 8015B	SW-846 8015B modified	1	103480018A	12/14/2010 23:59	Robert Brown	1
10318	26a Terphenyls by 8015B	SW-846 8015B	1	103500031A	12/18/2010 02:02	Heather E Williams	1
11238	EPH Extraction - Soils	SW-846 3550B	1	103490010A	12/15/2010 19:30	Sally L Appleyard	1
10303	Terphenyls soil prep	SW-846 3550B	1	103500031A	12/17/2010 07:00	Kerrie A Freeburn	1
11551	Direct Inj. Solids Glycol Ext.	SW-846 8015B	1	103480018A	12/14/2010 13:00	Dustin A Underkoffler	1
00380	Direct Injection Solids Ext	SW-846 8015B	1	103480002A	12/14/2010 13:00	Dustin A Underkoffler	1
01643	Aluminum	SW-846 6010B	1	103495708002	12/16/2010 16:59	Eric L Eby	1
07914	Boron	SW-846 6010B	1	103495708002	12/16/2010 05:05	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	103495708002	12/16/2010 05:05	Tara L Snyder	1
01654	Iron	SW-846 6010B	1	103495708002	12/16/2010 05:05	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	103495708002	12/16/2010 05:05	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	103495708002	12/16/2010 05:05	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	103495708002	12/16/2010 05:05	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	103495708002	12/16/2010 05:05	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	103495708002	12/16/2010 05:05	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	103495708002	12/16/2010 05:05	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	103495708002	12/16/2010 05:05	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	103495708002	12/16/2010 05:05	Tara L Snyder	1
06970	Titanium	SW-846 6010B	1	103505708003	12/20/2010 16:54	John P Hook	2
10146	Zirconium	SW-846 6010B	1	103495708002	12/16/2010 05:05	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	103491026002A	12/17/2010 15:22	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103491026002A	12/17/2010 15:22	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103491026002D	12/17/2010 15:22	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103491026002A	12/17/2010 15:22	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103491026002A	12/17/2010 15:22	Choon Y Tian	2

\*=This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-015-SA5C-SB-9.0-10.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-015-SA5C-SB-9.0-10.0

**LLI Sample #** SW 6162856  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 14:40

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3302 SDG#: DE033-02

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
06131	Chromium	SW-846 6020	1	103491026002A	12/17/2010	15:22	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103491026002A	12/17/2010	15:22	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103491026002A	12/17/2010	15:22	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103491026002A	12/17/2010	15:22	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103491026002C	12/17/2010	15:22	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103491026002A	12/17/2010	15:22	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103491026002B	12/17/2010	15:22	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103491026002A	12/17/2010	15:22	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103491026002A	12/17/2010	15:22	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103491026002A	12/17/2010	15:22	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	103491026002A	12/17/2010	15:22	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	103495711002	12/15/2010	19:44	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	103495708002	12/15/2010	10:35	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	103505708003	12/17/2010	19:17	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103491026002	12/15/2010	11:08	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	103495711002	12/15/2010	12:17	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10352352201A	12/20/2010	15:07	Ashley M Adams	1
07336	11a Anions by 300.0 - Nitrate	EPA 300.0	1	10352352201A	12/20/2010	15:07	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10354354201B	12/21/2010	23:22	Venia B McFadden	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	10356243201A	12/28/2010	18:44	Ashley M Adams	1
05895	21a Cyanide by 9012B	SW-846 9012B	1	10355102202A	12/21/2010	20:15	Joseph E McKenzie	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10352352201A	12/19/2010	16:30	Joseph E McKenzie	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10354354201B	12/20/2010	19:00	Carolyn M Mastropietro	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	10355102202A	12/21/2010	15:35	Carolyn M Mastropietro	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10348182101A	12/14/2010	09:00	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10348039401A	12/14/2010	09:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10356243201A	12/22/2010	20:10	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	1	10364162401A	12/31/2010	05:52	William C Schwebel	1

\*-This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-020-SA5C-SB-4.0-5.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-020-SA5C-SB-4.0-5.0

**LLI Sample #** SW 6162857  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 09:55

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3303 SDG#: DE033-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
06192	Acetone	67-64-1	6.0 U	6.0	7.1		0.8
06192	Benzene	71-43-2	0.09 U	0.09	3.6		0.8
06192	Bromobenzene	108-86-1	0.12 U	0.12	3.6		0.8
06192	Bromochloromethane	74-97-5	0.29 U	0.29	3.6		0.8
06192	Bromodichloromethane	75-27-4	0.07 U	0.07	3.6		0.8
06192	Bromoform	75-25-2	0.36 U	0.36	3.6		0.8
06192	Bromomethane	74-83-9	0.22 U	0.22	3.6		0.8
06192	2-Butanone	78-93-3	1.1 U	1.1	7.1		0.8
06192	n-Butylbenzene	104-51-8	0.11 U	0.11	3.6		0.8
06192	sec-Butylbenzene	135-98-8	0.05 U	0.05	3.6		0.8
06192	tert-Butylbenzene	98-06-6	0.14 U	0.14	3.6		0.8
06192	Carbon Tetrachloride	56-23-5	0.12 U	0.12	3.6		0.8
06192	Chlorobenzene	108-90-7	0.1 U	0.1	3.6		0.8
06192	Chloroethane	75-00-3	0.12 U	0.12	3.6		0.8
06192	2-Chloroethyl Vinyl Ether	110-75-8	0.27 U	0.27	3.6		0.8
06192	Chloroform	67-66-3	0.11 U	0.11	3.6		0.8
06192	Chloromethane	74-87-3	0.29 U	0.29	3.6		0.8
06192	2-Chlorotoluene	95-49-8	0.12 U	0.12	3.6		0.8
06192	4-Chlorotoluene	106-43-4	0.12 U	0.12	3.6		0.8
06192	Chlorotrifluoroethene	79-38-9	0.45 U	0.45	4.5		0.8
06192	1,2-Dibromo-3-chloropropane	96-12-8	0.63 U	0.63	3.6		0.8
06192	Dibromochloromethane	124-48-1	0.18 U	0.18	3.6		0.8
06192	1,2-Dibromoethane	106-93-4	0.15 U	0.15	3.6		0.8
06192	Dibromomethane	74-95-3	0.21 U	0.21	3.6		0.8
06192	1,2-Dichlorobenzene	95-50-1	0.08 U	0.08	3.6		0.8
06192	1,3-Dichlorobenzene	541-73-1	0.11 U	0.11	3.6		0.8
06192	1,4-Dichlorobenzene	106-46-7	0.14 U	0.14	3.6		0.8
06192	Dichlorodifluoromethane	75-71-8	0.11 U	0.11	3.6		0.8
06192	1,1-Dichloroethane	75-34-3	0.09 U	0.09	3.6		0.8
06192	1,2-Dichloroethane	107-06-2	0.13 U	0.13	3.6		0.8
06192	1,1-Dichloroethene	75-35-4	0.35 U	0.35	3.6		0.8
06192	cis-1,2-Dichloroethene	156-59-2	0.17 U	0.17	3.6		0.8
06192	trans-1,2-Dichloroethene	156-60-5	0.11 U	0.11	3.6		0.8
06192	1,2-Dichloropropane	78-87-5	0.15 U	0.15	3.6		0.8
06192	1,3-Dichloropropane	142-28-9	0.07 U	0.07	3.6		0.8
06192	2,2-Dichloropropane	594-20-7	0.15 U	0.15	3.6		0.8
06192	1,1-Dichloropropene	563-58-6	0.12 U	0.12	3.6		0.8
06192	cis-1,3-Dichloropropene	10061-01-5	0.14 U	0.14	3.6		0.8
06192	trans-1,3-Dichloropropene	10061-02-6	0.15 U	0.15	3.6		0.8
06192	Ethylbenzene	100-41-4	0.05 U	0.05	3.6		0.8
06192	Freon 113	76-13-1	0.1 U	0.1	3.6		0.8
06192	Freon 133a	75-88-7	0.45 U	0.45	4.5		0.8
06192	Hexachlorobutadiene	87-68-3	0.12 U	0.12	3.6		0.8
06192	2-Hexanone	591-78-6	1.4 U	1.4	7.1		0.8
06192	Isopropylbenzene	98-82-8	0.05 U	0.05	3.6		0.8
06192	p-Isopropyltoluene	99-87-6	0.1 U	0.1	3.6		0.8
06192	Methyl Tertiary Butyl Ether	1634-04-4	0.19 U	0.19	3.6		0.8
06192	4-Methyl-2-pentanone	108-10-1	0.35 U	0.35	7.1		0.8
06192	Methylene Chloride	75-09-2	2.6 J	0.21	3.6		0.8
06192	n-Propylbenzene	103-65-1	0.06 U	0.06	3.6		0.8

\*=This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-020-SA5C-SB-4.0-5.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-020-SA5C-SB-4.0-5.0

LLI Sample # SW 6162857  
 LLI Group # 1225035  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 09:55

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3303 SDG#: DE033-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
06192	Styrene	100-42-5	0.09 U	0.09	3.6		0.8
06192	1,1,1,2-Tetrachloroethane	630-20-6	0.1 U	0.1	3.6		0.8
06192	1,1,2,2-Tetrachloroethane	79-34-5	0.21 U	0.21	3.6		0.8
06192	Tetrachloroethene	127-18-4	0.18 U	0.18	3.6		0.8
06192	Toluene	108-88-3	0.15 J	0.07	3.6		0.8
06192	1,2,3-Trichlorobenzene	87-61-6	0.12 U	0.12	3.6		0.8
06192	1,2,4-Trichlorobenzene	120-82-1	0.16 U	0.16	3.6		0.8
06192	1,1,1-Trichloroethane	71-55-6	0.18 U	0.18	3.6		0.8
06192	1,1,2-Trichloroethane	79-00-5	0.24 U	0.24	3.6		0.8
06192	Trichloroethene	79-01-6	0.13 U	0.13	3.6		0.8
06192	Trichlorofluoromethane	75-69-4	0.26 U	0.26	3.6		0.8
06192	1,2,3-Trichloropropane	96-18-4	0.29 U	0.29	3.6		0.8
06192	1,2,4-Trimethylbenzene	95-63-6	0.36 U	0.36	3.6		0.8
06192	1,3,5-Trimethylbenzene	108-67-8	0.09 U	0.09	3.6		0.8
06192	Vinyl Chloride	75-01-4	0.18 U	0.18	3.6		0.8
06192	m+p-Xylene	179601-23-1	0.15 U	0.15	3.6		0.8
06192	o-Xylene	95-47-6	0.15 U	0.15	3.6		0.8
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B SIM</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10326	1,4-Dioxane	123-91-1	4.4 U	4.4	13		19.94
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>EPA 1625C</b>	<b>ng/kg</b>	<b>ng/kg</b>	<b>ng/kg</b>	<b>ng/kg</b>	
11622	N-Nitrosodimethylamine	62-75-9	37.2	18.5	37.1		1
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04688	Aniline	62-53-3	190	U 190	560		1
04688	Benzidine	92-87-5	1,300	U 1,300	3,700		1
04688	Benzoic acid	65-85-0	190	U 190	560		1
04688	Benzyl alcohol	100-51-6	190	U 190	560		1
04688	4-Bromophenyl-phenylether	101-55-3	19	U 19	190		1
04688	Carbazole	86-74-8	19	U 19	190		1
04688	4-Chloro-3-methylphenol	59-50-7	37	U 37	190		1
04688	4-Chloroaniline	106-47-8	74	U 74	190		1
04688	bis(2-Chloroethoxy)methane	111-91-1	19	U 19	190		1
04688	bis(2-Chloroethyl)ether	111-44-4	19	U 19	190		1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	19	U 19	190		1
04688	2-Chloronaphthalene	91-58-7	19	U 19	190		1
04688	2-Chlorophenol	95-57-8	19	U 19	190		1
04688	4-Chlorophenyl-phenylether	7005-72-3	37	U 37	190		1
04688	Dibenzofuran	132-64-9	19	U 19	190		1
04688	1,2-Dichlorobenzene	95-50-1	19	U 19	190		1
04688	1,3-Dichlorobenzene	541-73-1	19	U 19	190		1
04688	1,4-Dichlorobenzene	106-46-7	19	U 19	190		1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	370		1
04688	2,4-Dichlorophenol	120-83-2	19	U 19	190		1
04688	2,4-Dimethylphenol	105-67-9	37	U 37	190		1
04688	3,5-Dimethylphenol	108-68-9	37	U 37	190		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	190	U 190	560		1
04688	2,4-Dinitrophenol	51-28-5	740	U 740	2,200		1

\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-020-SA5C-SB-4.0-5.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-020-SA5C-SB-4.0-5.0

**LLI Sample #** SW 6162857  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 09:55

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3303 SDG#: DE033-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04688	2,4-Dinitrotoluene	121-14-2	37	U 37	190		1
04688	2,6-Dinitrotoluene	606-20-2	19	U 19	190		1
04688	1,2-Diphenylhydrazine	122-66-7	19	U 19	190		1
04688	Hexachlorobenzene	118-74-1	19	U 19	190		1
04688	Hexachlorobutadiene	87-68-3	74	U 74	190		1
04688	Hexachlorocyclopentadiene	77-47-4	190	U 190	560		1
04688	Hexachloroethane	67-72-1	19	U 19	190		1
04688	Isophorone	78-59-1	19	U 19	190		1
04688	2-Methylphenol	95-48-7	37	U 37	190		1
04688	4-Methylphenol	106-44-5	37	U 37	190		1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.							
04688	2-Nitroaniline	88-74-4	19	U 19	190		1
04688	3-Nitroaniline	99-09-2	37	U 37	190		1
04688	4-Nitroaniline	100-01-6	74	U 74	190		1
04688	Nitrobenzene	98-95-3	19	U 19	190		1
04688	2-Nitrophenol	88-75-5	19	U 19	190		1
04688	4-Nitrophenol	100-02-7	190	U 190	560		1
04688	N-Nitroso-di-n-propylamine	621-64-7	19	U 19	190		1
04688	N-Nitrosodiphenylamine	86-30-6	19	U 19	190		1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.							
04688	Pentachlorophenol	87-86-5	190	U 190	560		1
04688	Phenol	108-95-2	19	U 19	190		1
04688	1,2,4-Trichlorobenzene	120-82-1	19	U 19	190		1
04688	2,4,5-Trichlorophenol	95-95-4	37	U 37	190		1
04688	2,4,6-Trichlorophenol	88-06-2	37	U 37	190		1

The LCS recovery is outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: bis(2-chloroisopropyl)ether

GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	ug/kg
10138	Acenaphthene	83-32-9	0.74	U 0.74	1.9	1
10138	Acenaphthylene	208-96-8	0.37	U 0.37	1.9	1
10138	Anthracene	120-12-7	0.37	U 0.37	1.9	1
10138	Benzo(a)anthracene	56-55-3	0.80	J 0.74	1.9	1
10138	Benzo(a)pyrene	50-32-8	0.74	U 0.74	1.9	1
10138	Benzo(b)fluoranthene	205-99-2	2.1	U 0.74	1.9	1
10138	Benzo(g,h,i)perylene	191-24-2	0.74	U 0.74	1.9	1
10138	Benzo(k)fluoranthene	207-08-9	0.87	J 0.74	1.9	1
10138	Butylbenzylphthalate	85-68-7	24		20	1
10138	Di-n-butylphthalate	84-74-2	6.7	J 6.7	20	1
10138	Chrysene	218-01-9	1.9	U 0.37	1.9	1
10138	Dibenz(a,h)anthracene	53-70-3	0.74	U 0.74	1.9	1
10138	Diethylphthalate	84-66-2	6.7	U 6.7	20	1
10138	Dimethylphthalate	131-11-3	6.7	U 6.7	20	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	70		20	1

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**Sample Description:** SL-020-SA5C-SB-4.0-5.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-020-SA5C-SB-4.0-5.0

**LLI Sample #** SW 6162857  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 09:55

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3303 SDG#: DE033-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS Semivolatiles SW-846 8270C SIM</b>							
10138	Fluoranthene	206-44-0	4.3	0.74	1.9		1
10138	Fluorene	86-73-7	0.74 U	0.74	1.9		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.74 U	0.74	1.9		1
10138	1-Methylnaphthalene	90-12-0	0.74 U	0.74	1.9		1
10138	2-Methylnaphthalene	91-57-6	0.74 U	0.74	1.9		1
10138	Naphthalene	91-20-3	0.74 U	0.74	1.9		1
10138	N-Nitrosodimethylamine	62-75-9	0.74 U	0.74	1.9		1
10138	Di-n-octylphthalate	117-84-0	10 J	6.7	20		1
10138	Phenanthrene	85-01-8	1.1 J	0.74	1.9		1
10138	Pyrene	129-00-0	2.5	0.74	1.9		1
Bis(2-ethylhexyl)phthalate was detected in the method blank at a concentration of 6.5 ug/kg. The blank value was not subtracted from the analytical result.							
<b>GC Volatiles TPH GRO SW-846 8015B mod</b>							
05551	9a TPH by EPA 8015B Gas C5-C12	n.a.	0.2 U	0.2	0.9		20.87
<b>Explosives SW-846 8330A</b>							
10132	4-Amino-2,6-Dinitrotoluene	19406-51-0	83 U	83	170	1000000	1
10132	2-Amino-4,6-Dinitrotoluene	35572-78-2	56 U	56	170	1000000	1
10132	2,6-Diamino-4-nitrotoluene	59229-75-3	110 U	110	330	1000000	1
10132	2,4-Diamino-6-nitrotoluene	6629-29-4	110 U	110	330	1000000	1
10132	1,3-Dinitrobenzene	99-65-0	56 U	56	170	1000000	1
10132	2,4-Dinitrotoluene	121-14-2	56 U	56	170	1000000	1
10132	2,6-Dinitrotoluene	606-20-2	56 U	56	170	1000000	1
10132	HMX	2691-41-0	140 U	140	420	1000000	1
10132	Nitrobenzene	98-95-3	56 U	56	170	1000000	1
10132	Nitroglycerin	55-63-0	1,100 U	1,100	3,300	1000000	1
10132	2-Nitrotoluene	88-72-2	110 U	110	170	1000000	1
10132	3-Nitrotoluene	99-08-1	140 U	140	170	1000000	1
10132	4-Nitrotoluene	99-99-0	110 U	110	170	1000000	1
10132	PETN	78-11-5	1,100 U	1,100	3,300	1000000	1
10132	RDX	121-82-4	70 U	70	170	1000000	1

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**Sample Description:** SL-020-SA5C-SB-4.0-5.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-020-SA5C-SB-4.0-5.0

LLI Sample # SW 6162857  
 LLI Group # 1225035  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

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E3303 SDG#: DE033-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Explosives</b>							
		<b>SW-846 8330A</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10132	Tetryl	479-45-8	85	U 85	170	1000000	1
10132	1,3,5-Trinitrobenzene	99-35-4	56	U 56	170	1000000	1
10132	2,4,6-Trinitrotoluene	118-96-7	56	U 56	170	1000000	1
<b>HPLC Organics</b>							
		<b>SW-846 8315A</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04173	17a Formaldehyde by	8315A 50-00-0	670	U 670	1,700		1
<b>Pesticides/PCBs</b>							
		<b>SW-846 8082</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10225	Aroclor 5432	63496-31-1	1.1	U 1.1	3.7		1
10225	Aroclor 5442	12642-23-8	1.1	U 1.1	3.7		1
10225	Aroclor 5460	11126-42-4	1.1	U 1.1	3.7		1
10225	PCB-1016	12674-11-2	0.37	U 0.37	1.9		1
10225	PCB-1221	11104-28-2	0.56	U 0.56	1.9		1
10225	PCB-1232	11141-16-5	0.58	U 0.58	1.9		1
10225	PCB-1242	53469-21-9	0.56	U 0.56	1.9		1
10225	PCB-1248	12672-29-6	0.37	U 0.37	1.9		1
10225	PCB-1254	11097-69-1	0.37	U 0.37	1.9		1
10225	PCB-1260	11096-82-5	0.37	U 0.37	1.9		1
10225	PCB-1262	37324-23-5	0.37	U 0.37	1.9		1
10225	PCB-1268	11100-14-4	0.37	U 0.37	1.9		1

The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.

GC Extractable TPH	SW-846 8015B modified	mg/kg	mg/kg	mg/kg	mg/kg
10199	EFH (C12-C14)	n.a.	0.44	U 0.44	1.3
10199	EFH (C15-C20)	n.a.	0.44	U 0.44	1.3
10199	EFH (C21-C30)	n.a.	1.2	J 0.44	1.3
10199	EFH (C30 - C40)	n.a.	2.2	U 0.44	1.3
10199	EFH (C8-C11)	n.a.	0.44	U 0.44	1.3

GC Miscellaneous	SW-846 8015B	ug/kg	ug/kg	ug/kg	ug/kg
10501	Ethanol	64-17-5	110	U 110	560
10501	Isopropanol	67-63-0	110	U 110	560
10501	Methanol	67-56-1	110	U 110	560

GC Miscellaneous	SW-846 8015B modified	mg/kg	mg/kg	mg/kg	mg/kg
08283	Diethylene glycol	111-46-6	5.6	U 5.6	14
08283	Ethylene glycol	107-21-1	5.6	U 5.6	14
08283	Propylene glycol	57-55-6	5.6	U 5.6	14

The sample was injected numerous times. Each time the responses for various analytes in the calibration check standard injected after the sample were outside the acceptance criteria. Therefore, this effect is attributed to the sample matrix and the data is reported.

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 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-020-SA5C-SB-4.0-5.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-020-SA5C-SB-4.0-5.0

LLI Sample # SW 6162857  
 LLI Group # 1225035  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 09:55

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3303 SDG#: DE033-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Terphenyls</b>			<b>mg/kg</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
10318	m-Terphenyl	92-06-8	1.7	U	1.7	3.9		1
10318	o-Terphenyl	84-15-1	1.7	U	1.7	3.9		1
10318	p-Terphenyl	92-94-4	1.7	U	1.7	3.9		1
<b>Metals</b>			<b>mg/kg</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
01643	Aluminum	7429-90-5	14,800		5.54	22.0		1
07914	Boron	7440-42-8	2.16	J	0.980	5.51		1
01650	Calcium	7440-70-2	6,430		6.75	22.0		1
01654	Iron	7439-89-6	24,800		5.19	22.0		1
01656	Lithium	7439-93-2	21.2		0.24	2.2		1
01657	Magnesium	7439-95-4	4,360		2.80	11.0		1
06958	Manganese	7439-96-5	372		0.0859	0.551		1
10145	Phosphorus	7723-14-0	305		0.617	11.0		1
01662	Potassium	7440-09-7	2,820		19.8	55.1		1
01667	Sodium	7440-23-5	100	J	41.1	110		1
07968	Strontium	7440-24-6	22.1		0.0683	0.551		1
06969	Tin	7440-31-5	2.12	J	1.10	11.0		1
06970	Titanium	7440-32-6	1,140		0.837	2.20		2
10146	Zirconium	7440-67-7	1.94	J	0.925	5.51		1
<b>SW-846 6020</b>			<b>mg/kg</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
06124	Antimony	7440-36-0	0.0642	U	0.0642	0.214		2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.								
06125	Arsenic	7440-38-2	4.89		0.0642	0.428		2
06126	Barium	7440-39-3	105		0.116	0.428		2
06127	Beryllium	7440-41-7	0.575		0.0171	0.107		2
06128	Cadmium	7440-43-9	0.138		0.0385	0.107		2
06131	Chromium	7440-47-3	21.4		0.128	0.428		2
06132	Cobalt	7440-48-4	6.66		0.0214	0.107		2
06133	Copper	7440-50-8	10.1		0.0706	0.428		2
06135	Lead	7439-92-1	7.74		0.0111	0.214		2
06138	Molybdenum	7439-98-7	0.471		0.0535	0.107		2
06139	Nickel	7440-02-0	12.3		0.107	0.428		2
06141	Selenium	7782-49-2	0.0983	J	0.0428	0.428		2
06142	Silver	7440-22-4	0.0350	J	0.0128	0.107		2
06145	Thallium	7440-28-0	0.325		0.0321	0.107		2
06148	Vanadium	7440-62-2	42.2		0.0235	0.107		2
06149	Zinc	7440-66-6	59.6		0.599	3.21		2
<b>SW-846 7471A</b>			<b>mg/kg</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
00159	Mercury	7439-97-6	0.0032	U	0.0032	0.111		1
<b>Wet Chemistry</b>			<b>mg/kg</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	3.6		0.89	1.1		1
07336	11a Anions by 300.0 - Nitrate	14797-55-8	2.4		0.89	1.7		1

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 Shaded result = The results or reporting limit exceeded the client-provided action limit.



# Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

**Sample Description:** SL-020-SA5C-SB-4.0-5.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-020-SA5C-SB-4.0-5.0

**LLI Sample #** SW 6162857  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 09:55  
 Submitted: 12/10/2010 09:15  
 Reported: 01/21/2011 15:50

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
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 Chantilly VA 20151

E3303 SDG#: DE033-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Wet Chemistry EPA 314.0</b>							
10147	7a Perchlorate EPA 314.0	14797-73-0	10.0 U	10.0 ug/kg	33.4 ug/kg	ug/kg	1
<b>SW-846 7199</b>							
05892	3a Cr VI by EPA 7199	18540-29-9	0.22 U	0.22 mg/kg	1.1 mg/kg	mg/kg	1
<b>SW-846 9012B</b>							
05895	21a Cyanide by 9012B	57-12-5	0.20 U	0.20 mg/kg	0.56 mg/kg	mg/kg	1
<b>ASTM D1498</b>							
01821	Oxidation Reduction Potential	n.a.	458	10.0 mV	10.0 mV	mV	1
The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.							
<b>SW-846 9045C modified</b>							
00394	22a pH by 9045C	n.a.	8.48	0.0100 Std. Units	0.0100 Std. Units	Std. Units	1
<b>Wet Chemistry EPA 160.3 modified</b>							
11624	28a Moisture Content by 160.3	n.a.	10.1	0.50 %	0.50 %	%	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.							

### General Sample Comments

State of California Lab Certification No. 2501  
 The volatile analysis was performed on soil from SL-020-SA5C-SB-4.5.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06192	1a Volatile Organics EPA 8260B	SW-846 8260B	1	B103481AA	12/14/2010 13:06	Nicholas R Rossi	0.8
10326	14a 1,4-Dioxane by 8260B SIM	SW-846 8260B SIM	1	E103492AA	12/15/2010 16:17	Jason M Long	19.94
08390	GC/MS - HL Encore Prep	SW-846 5035	1	201034723285	12/10/2010 12:22	Stephanie A Sanchez	n.a.
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035	1	201034723283	12/10/2010 12:23	Stephanie A Sanchez	n.a.
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035	2	201034723283	12/10/2010 12:23	Stephanie A Sanchez	n.a.

\*-This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-020-SA5C-SB-4.0-5.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-020-SA5C-SB-4.0-5.0

**LLI Sample #** SW 6162857  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 09:55

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3303 SDG#: DE033-03

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07578	GC/MS-HL Encore Prep-NC	SW-846 5035	1	201034723285	12/10/2010 12:22	Stephanie A Sanchez	n.a.
11622	19a NDMA by 1625C	EPA 1625C	1	10350SLF026	12/24/2010 22:16	Timothy J Trees	1
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10348SLG026	12/22/2010 11:07	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10349SLF026	12/20/2010 21:21	Chad A Moline	1
11630	NDMA Soil Microwave	SW-846 3546	1	10350SLF026	12/17/2010 01:00	Sherry L Morrow	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10349SLF026	12/16/2010 07:00	Joseph S Feister	1
00381	BNA Soil Sonication	SW-846 3550B	1	10348SLG026	12/15/2010 07:05	Joseph S Feister	1
05551	9a TPH by EPA 8015B Gas C5-C12	TPH GRO SW-846 8015B mod	1	10340B34B	12/14/2010 12:46	Elizabeth J Marin	20.87
06130	GC - 5 g HL Encore Prep	SW-846 5035	1	201034723285	12/10/2010 12:22	Stephanie A Sanchez	n.a.
10132	20a Energetics by 8330A	SW-846 8330A	1	103510022A	12/21/2010 03:59	Michele D Hamilton	1
04173	17a Formaldehyde by 8315A	SW-846 8315A	1	103480008A	12/17/2010 17:33	Michele D Hamilton	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	103490013A	12/19/2010 08:19	Lindsey K Lafferty	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	103490013A	12/15/2010 21:05	Karen L Beyer	1
05876	Formaldehyde Solid Extraction	SW-846 8315A	1	103480008A	12/14/2010 15:00	Kelli M Barto	1
11137	Energetics Extraction	SW-846 8330	1	103510022A	12/19/2010 17:00	Wanda F Oswald	1
10199	9a TPH by EPA 8015B Oil/Diesel	SW-846 8015B modified	1	103490010A	12/21/2010 04:15	Heather E Williams	1
10501	25a Alcohols by 8015B	SW-846 8015B	1	103480002A	12/14/2010 19:27	Dustin A Underkoffler	1
08283	27a Glycols by 8015B	SW-846 8015B modified	1	103480018A	12/15/2010 02:39	Robert Brown	1
10318	26a Terphenyls by 8015B	SW-846 8015B	1	103500031A	12/17/2010 18:34	Heather E Williams	1
11238	EPH Extraction - Soils	SW-846 3550B	1	103490010A	12/15/2010 19:30	Sally L Appleyard	1
10303	Terphenyls soil prep	SW-846 3550B	1	103500031A	12/17/2010 07:00	Kerrie A Freeburn	1
11551	Direct Inj. Solids Glycol Ext.	SW-846 8015B	1	103480018A	12/14/2010 13:00	Dustin A Underkoffler	1
00380	Direct Injection Solids Ext	SW-846 8015B	1	103480002A	12/14/2010 13:00	Dustin A Underkoffler	1
01643	Aluminum	SW-846 6010B	1	103495708002	12/16/2010 17:10	Eric L Eby	1
07914	Boron	SW-846 6010B	1	103495708002	12/16/2010 05:09	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	103495708002	12/16/2010 05:09	Tara L Snyder	1
01654	Iron	SW-846 6010B	1	103495708002	12/16/2010 05:09	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	103495708002	12/16/2010 05:09	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	103495708002	12/16/2010 05:09	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	103495708002	12/16/2010 05:09	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	103495708002	12/16/2010 05:09	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	103495708002	12/16/2010 05:09	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	103495708002	12/16/2010 05:09	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	103495708002	12/16/2010 05:09	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	103495708002	12/16/2010 05:09	Tara L Snyder	1

\*=This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-020-SA5C-SB-4.0-5.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-020-SA5C-SB-4.0-5.0

**LLI Sample #** SW 6162857  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 09:55

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3303 SDG#: DE033-03

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06970	Titanium	SW-846 6010B	1	103505708003	12/20/2010 17:04	John P Hook	2
10146	Zirconium	SW-846 6010B	1	103495708002	12/16/2010 05:09	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	103491026002A	12/17/2010 15:31	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103491026002A	12/17/2010 15:31	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103491026002D	12/17/2010 15:31	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103491026002A	12/17/2010 15:31	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103491026002A	12/17/2010 15:31	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103491026002A	12/17/2010 15:31	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103491026002A	12/17/2010 15:31	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103491026002A	12/17/2010 15:31	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103491026002A	12/17/2010 15:31	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103491026002C	12/17/2010 15:31	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103491026002A	12/17/2010 15:31	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103491026002B	12/17/2010 15:31	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103491026002A	12/17/2010 15:31	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103491026002A	12/17/2010 15:31	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103491026002A	12/17/2010 15:31	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	103491026002A	12/17/2010 15:31	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	103495711002	12/15/2010 19:48	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	103495708002	12/15/2010 10:35	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	103505708003	12/17/2010 19:17	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103491026002	12/15/2010 11:08	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	103495711002	12/15/2010 12:17	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10352352201A	12/20/2010 15:21	Ashley M Adams	1
07336	11a Anions by 300.0 - Nitrate	EPA 300.0	1	10352352201A	12/20/2010 15:21	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10354354201B	12/21/2010 23:46	Venia B McFadden	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	10356243201A	12/28/2010 18:57	Ashley M Adams	1
05895	21a Cyanide by 9012B	SW-846 9012B	1	10355102202A	12/21/2010 20:19	Joseph E McKenzie	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10352352201A	12/19/2010 16:30	Joseph E McKenzie	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10354354201B	12/20/2010 19:00	Carolyn M Mastropietro	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	10355102202A	12/21/2010 15:35	Carolyn M Mastropietro	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10348182101A	12/14/2010 09:00	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10348039401A	12/14/2010 09:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10356243201A	12/22/2010 20:10	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	1	10364162401A	12/31/2010 05:52	William C Schwebel	1

\*—This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.



# Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

**Sample Description:** SL-020-SA5C-SB-7.5-8.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-020-SA5C-SB-7.5-8.5

LLI Sample # SW 6162858  
 LLI Group # 1225035  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 10:00

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3304 SDG#: DE033-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
06192	Acetone	67-64-1	5.7 U	5.7	6.8		0.77
06192	Benzene	71-43-2	0.08 U	0.08	3.4		0.77
06192	Bromobenzene	108-86-1	0.11 U	0.11	3.4		0.77
06192	Bromochloromethane	74-97-5	0.28 U	0.28	3.4		0.77
06192	Bromodichloromethane	75-27-4	0.07 U	0.07	3.4		0.77
06192	Bromoform	75-25-2	0.34 U	0.34	3.4		0.77
06192	Bromomethane	74-83-9	0.21 U	0.21	3.4		0.77
06192	2-Butanone	78-93-3	1.0 U	1.0	6.8		0.77
06192	n-Butylbenzene	104-51-8	0.10 U	0.10	3.4		0.77
06192	sec-Butylbenzene	135-98-8	0.05 U	0.05	3.4		0.77
06192	tert-Butylbenzene	98-06-6	0.14 U	0.14	3.4		0.77
06192	Carbon Tetrachloride	56-23-5	0.12 U	0.12	3.4		0.77
06192	Chlorobenzene	108-90-7	0.09 U	0.09	3.4		0.77
06192	Chloroethane	75-00-3	0.11 U	0.11	3.4		0.77
06192	2-Chloroethyl Vinyl Ether	110-75-8	0.25 U	0.25	3.4		0.77
06192	Chloroform	67-66-3	0.10 U	0.10	3.4		0.77
06192	Chloromethane	74-87-3	0.28 U	0.28	3.4		0.77
06192	2-Chlorotoluene	95-49-8	0.12 U	0.12	3.4		0.77
06192	4-Chlorotoluene	106-43-4	0.12 U	0.12	3.4		0.77
06192	Chlorotrifluoroethene	79-38-9	0.42 U	0.42	4.2		0.77
06192	1,2-Dibromo-3-chloropropane	96-12-8	0.59 U	0.59	3.4		0.77
06192	Dibromochloromethane	124-48-1	0.17 U	0.17	3.4		0.77
06192	1,2-Dibromoethane	106-93-4	0.14 U	0.14	3.4		0.77
06192	Dibromomethane	74-95-3	0.20 U	0.20	3.4		0.77
06192	1,2-Dichlorobenzene	95-50-1	0.08 U	0.08	3.4		0.77
06192	1,3-Dichlorobenzene	541-73-1	0.10 U	0.10	3.4		0.77
06192	1,4-Dichlorobenzene	106-46-7	0.14 U	0.14	3.4		0.77
06192	Dichlorodifluoromethane	75-71-8	0.10 U	0.10	3.4		0.77
06192	1,1-Dichloroethane	75-34-3	0.08 U	0.08	3.4		0.77
06192	1,2-Dichloroethane	107-06-2	0.13 U	0.13	3.4		0.77
06192	1,1-Dichloroethene	75-35-4	0.33 U	0.33	3.4		0.77
06192	cis-1,2-Dichloroethene	156-59-2	0.16 U	0.16	3.4		0.77
06192	trans-1,2-Dichloroethene	156-60-5	0.10 U	0.10	3.4		0.77
06192	1,2-Dichloropropane	78-87-5	0.14 U	0.14	3.4		0.77
06192	1,3-Dichloropropane	142-28-9	0.07 U	0.07	3.4		0.77
06192	2,2-Dichloropropane	594-20-7	0.14 U	0.14	3.4		0.77
06192	1,1-Dichloropropene	563-58-6	0.11 U	0.11	3.4		0.77
06192	cis-1,3-Dichloropropene	10061-01-5	0.14 U	0.14	3.4		0.77
06192	trans-1,3-Dichloropropene	10061-02-6	0.14 U	0.14	3.4		0.77
06192	Ethylbenzene	100-41-4	0.05 U	0.05	3.4		0.77
06192	Freon 113	76-13-1	0.09 U	0.09	3.4		0.77
06192	Freon 133a	75-88-7	0.42 U	0.42	4.2		0.77
06192	Hexachlorobutadiene	87-68-3	0.12 U	0.12	3.4		0.77
06192	2-Hexanone	591-78-6	1.4 U	1.4	6.8		0.77
06192	Isopropylbenzene	98-82-8	0.05 U	0.05	3.4		0.77
06192	p-Isopropyltoluene	99-87-6	0.09 U	0.09	3.4		0.77
06192	Methyl Tertiary Butyl Ether	1634-04-4	0.18 U	0.18	3.4		0.77
06192	4-Methyl-2-pentanone	108-10-1	0.33 U	0.33	6.8		0.77
06192	Methylene Chloride	75-09-2	0.72 J	0.20	3.4		0.77
06192	n-Propylbenzene	103-65-1	0.06 U	0.06	3.4		0.77

\*=This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-020-SA5C-SB-7.5-8.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-020-SA5C-SB-7.5-8.5

**LLI Sample #** SW 6162858  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 10:00

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3304 SDG#: DE033-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS Volatiles SW-846 8260B</b>							
06192	Styrene	100-42-5	0.08 U	0.08	3.4		0.77
06192	1,1,1,2-Tetrachloroethane	630-20-6	0.09 U	0.09	3.4		0.77
06192	1,1,2,2-Tetrachloroethane	79-34-5	0.19 U	0.19	3.4		0.77
06192	Tetrachloroethene	127-18-4	0.17 U	0.17	3.4		0.77
06192	Toluene	108-88-3	0.13 J	0.07	3.4		0.77
06192	1,2,3-Trichlorobenzene	87-61-6	0.12 U	0.12	3.4		0.77
06192	1,2,4-Trichlorobenzene	120-82-1	0.15 U	0.15	3.4		0.77
06192	1,1,1-Trichloroethane	71-55-6	0.17 U	0.17	3.4		0.77
06192	1,1,2-Trichloroethane	79-00-5	0.23 U	0.23	3.4		0.77
06192	Trichloroethene	79-01-6	0.13 U	0.13	3.4		0.77
06192	Trichlorofluoromethane	75-69-4	0.25 U	0.25	3.4		0.77
06192	1,2,3-Trichloropropane	96-18-4	0.28 U	0.28	3.4		0.77
06192	1,2,4-Trimethylbenzene	95-63-6	0.34 U	0.34	3.4		0.77
06192	1,3,5-Trimethylbenzene	108-67-8	0.08 U	0.08	3.4		0.77
06192	Vinyl Chloride	75-01-4	0.17 U	0.17	3.4		0.77
06192	m+p-Xylene	179601-23-1	0.14 U	0.14	3.4		0.77
06192	o-Xylene	95-47-6	0.14 U	0.14	3.4		0.77
<b>GC/MS Volatiles SW-846 8260B SIM</b>							
10326	1,4-Dioxane	123-91-1	4.3 U	4.3	13		19.75
<b>GC/MS Semivolatiles EPA 1625C</b>							
11622	N-Nitrosodimethylamine	62-75-9	18.3 U	18.3	36.5		1
<b>GC/MS Semivolatiles SW-846 8270C</b>							
04688	Aniline	62-53-3	180	U 180	550		1
04688	Benzidine	92-87-5	1,300	U 1,300	3,700		1
04688	Benzoic acid	65-85-0	180	U 180	550		1
04688	Benzyl alcohol	100-51-6	180	U 180	550		1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180		1
04688	Carbazole	86-74-8	18	U 18	180		1
04688	4-Chloro-3-methylphenol	59-50-7	37	U 37	180		1
04688	4-Chloroaniline	106-47-8	73	U 73	180		1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180		1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180		1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180		1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180		1
04688	2-Chlorophenol	95-57-8	18	U 18	180		1
04688	4-Chlorophenyl-phenylether	7005-72-3	37	U 37	180		1
04688	Dibenzofuran	132-64-9	18	U 18	180		1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180		1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180		1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180		1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	370		1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180		1
04688	2,4-Dimethylphenol	105-67-9	37	U 37	180		1
04688	3,5-Dimethylphenol	108-68-9	37	U 37	180		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	550		1
04688	2,4-Dinitrophenol	51-28-5	730	U 730	2,200		1

\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-020-SA5C-SB-7.5-8.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-020-SA5C-SB-7.5-8.5

**LLI Sample #** SW 6162858  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 10:00

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3304 SDG#: DE033-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04688	2,4-Dinitrotoluene	121-14-2	37	U 37	180		1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180		1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180		1
04688	Hexachlorobenzene	118-74-1	18	U 18	180		1
04688	Hexachlorobutadiene	87-68-3	73	U 73	180		1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	550		1
04688	Hexachloroethane	67-72-1	18	U 18	180		1
04688	Isophorone	78-59-1	18	U 18	180		1
04688	2-Methylphenol	95-48-7	37	U 37	180		1
04688	4-Methylphenol	106-44-5	37	U 37	180		1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.							
04688	2-Nitroaniline	88-74-4	18	U 18	180		1
04688	3-Nitroaniline	99-09-2	37	U 37	180		1
04688	4-Nitroaniline	100-01-6	73	U 73	180		1
04688	Nitrobenzene	98-95-3	18	U 18	180		1
04688	2-Nitrophenol	88-75-5	18	U 18	180		1
04688	4-Nitrophenol	100-02-7	180	U 180	550		1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180		1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180		1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.							
04688	Pentachlorophenol	87-86-5	180	U 180	550		1
04688	Phenol	108-95-2	18	U 18	180		1
04688	1,2,4-Trichlorobenzene	120-82-1	18	U 18	180		1
04688	2,4,5-Trichlorophenol	95-95-4	37	U 37	180		1
04688	2,4,6-Trichlorophenol	88-06-2	37	U 37	180		1

The LCS recovery is outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: bis(2-chloroisopropyl)ether

GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	ug/kg
10138	Acenaphthene	83-32-9	0.73	U 0.73	1.8	1
10138	Acenaphthylene	208-96-8	0.37	U 0.37	1.8	1
10138	Anthracene	120-12-7	0.37	U 0.37	1.8	1
10138	Benzo(a)anthracene	56-55-3	0.73	U 0.73	1.8	1
10138	Benzo(a)pyrene	50-32-8	0.73	U 0.73	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	0.73	U 0.73	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	0.73	U 0.73	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	0.73	U 0.73	1.8	1
10138	Butylbenzylphthalate	85-68-7	6.6	U 6.6	20	1
10138	Di-n-butylphthalate	84-74-2	6.6	U 6.6	20	1
10138	Chrysene	218-01-9	0.37	U 0.37	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.73	U 0.73	1.8	1
10138	Diethylphthalate	84-66-2	6.6	U 6.6	20	1
10138	Dimethylphthalate	131-11-3	6.6	U 6.6	20	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	35	6.6	20	1

\*=This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-020-SA5C-SB-7.5-8.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-020-SA5C-SB-7.5-8.5

**LLI Sample #** SW 6162858  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 10:00

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3304 SDG#: DE033-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS Semivolatiles SW-846 8270C SIM</b>							
10138	Fluoranthene	206-44-0	0.73 U	0.73	1.8	ug/kg	1
10138	Fluorene	86-73-7	0.73 U	0.73	1.8	ug/kg	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.73 U	0.73	1.8	ug/kg	1
10138	1-Methylnaphthalene	90-12-0	0.73 U	0.73	1.8	ug/kg	1
10138	2-Methylnaphthalene	91-57-6	0.73 U	0.73	1.8	ug/kg	1
10138	Naphthalene	91-20-3	0.73 U	0.73	1.8	ug/kg	1
10138	N-Nitrosodimethylamine	62-75-9	0.73 U	0.73	1.8	ug/kg	1
10138	Di-n-octylphthalate	117-84-0	6.6 U	6.6	20	ug/kg	1
10138	Phenanthrene	85-01-8	0.73 U	0.73	1.8	ug/kg	1
10138	Pyrene	129-00-0	0.73 U	0.73	1.8	ug/kg	1
Bis(2-ethylhexyl)phthalate was detected in the method blank at a concentration of 6.5 ug/kg. The blank value was not subtracted from the analytical result.							
<b>GC Volatiles TPH GRO SW-846 8015B mod</b>							
05551	9a TPH by EPA 8015B Gas C5-C12	n.a.	0.2 U	0.2	0.9	mg/kg	19.97
<b>Explosives SW-846 8330A</b>							
10132	4-Amino-2,6-Dinitrotoluene	19406-51-0	82 U	82	160	1000000	1
10132	2-Amino-4,6-Dinitrotoluene	35572-78-2	55 U	55	160	1000000	1
10132	2,6-Diamino-4-nitrotoluene	59229-75-3	110 U	110	330	1000000	1
10132	2,4-Diamino-6-nitrotoluene	6629-29-4	110 U	110	330	1000000	1
10132	1,3-Dinitrobenzene	99-65-0	55 U	55	160	1000000	1
10132	2,4-Dinitrotoluene	121-14-2	55 U	55	160	1000000	1
10132	2,6-Dinitrotoluene	606-20-2	55 U	55	160	1000000	1
10132	HMX	2691-41-0	140 U	140	410	1000000	1
10132	Nitrobenzene	98-95-3	55 U	55	160	1000000	1
10132	Nitroglycerin	55-63-0	1,100 U	1,100	3,300	1000000	1
10132	2-Nitrotoluene	88-72-2	110 U	110	160	1000000	1
10132	3-Nitrotoluene	99-08-1	140 U	140	160	1000000	1
10132	4-Nitrotoluene	99-99-0	110 U	110	160	1000000	1
10132	PETN	78-11-5	1,100 U	1,100	3,300	1000000	1
10132	RDX	121-82-4	68 U	68	160	1000000	1

\*=This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-020-SA5C-SB-7.5-8.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-020-SA5C-SB-7.5-8.5

LLI Sample # SW 6162858  
 LLI Group # 1225035  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 10:00

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3304 SDG#: DE033-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Explosives</b>							
		<b>SW-846 8330A</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10132	Tetryl	479-45-8	84	U 84	160	1000000	1
10132	1,3,5-Trinitrobenzene	99-35-4	55	U 55	160	1000000	1
10132	2,4,6-Trinitrotoluene	118-96-7	55	U 55	160	1000000	1
<b>HPLC Organics</b>							
		<b>SW-846 8315A</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04173	17a Formaldehyde by 8315A	50-00-0	660	U 660	1,600		1
<b>Perchlorate</b>							
		<b>SW-846 6850 1/2007</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
06557	6a Perchlorate EPA 6850	14797-73-0	2.3	U 2.3	5.5		1
<b>Pesticides/PCBs</b>							
		<b>SW-846 8082</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10225	Aroclor 5432	63496-31-1	1.1	U 1.1	3.6		1
10225	Aroclor 5442	12642-23-8	1.1	U 1.1	3.6		1
10225	Aroclor 5460	11126-42-4	1.1	U 1.1	3.6		1
10225	PCB-1016	12674-11-2	0.36	U 0.36	1.9		1
10225	PCB-1221	11104-28-2	0.55	U 0.55	1.9		1
10225	PCB-1232	11141-16-5	0.57	U 0.57	1.9		1
10225	PCB-1242	53469-21-9	0.55	U 0.55	1.9		1
10225	PCB-1248	12672-29-6	0.36	U 0.36	1.9		1
10225	PCB-1254	11097-69-1	0.36	U 0.36	1.9		1
10225	PCB-1260	11096-82-5	0.36	U 0.36	1.9		1
10225	PCB-1262	37324-23-5	0.36	U 0.36	1.9		1
10225	PCB-1268	11100-14-4	0.36	U 0.36	1.9		1
The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.							
<b>GC Extractable TPH</b>							
		<b>SW-846 8015B modified</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
10199	EFH (C12-C14)	n.a.	0.44	U 0.44	1.3		1
10199	EFH (C15-C20)	n.a.	0.44	U 0.44	1.3		1
10199	EFH (C21-C30)	n.a.	1.4	U 0.44	1.3		1
10199	EFH (C30 - C40)	n.a.	1.1	J 0.44	1.3		1
10199	EFH (C8-C11)	n.a.	0.44	U 0.44	1.3		1
<b>GC Miscellaneous</b>							
		<b>SW-846 8015B</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10501	Ethanol	64-17-5	110	U 110	550		1
10501	Isopropanol	67-63-0	110	U 110	550		1
10501	Methanol	67-56-1	110	U 110	550		1
<b>GC Miscellaneous</b>							
		<b>SW-846 8015B modified</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
08283	Diethylene glycol	111-46-6	5.5	U 5.5	14		1
08283	Ethylene glycol	107-21-1	5.5	U 5.5	14		1
08283	Propylene glycol	57-55-6	5.5	U 5.5	14		1

\*—This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-020-SA5C-SB-7.5-8.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-020-SA5C-SB-7.5-8.5

**LLI Sample #** SW 6162858  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 10:00

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3304 SDG#: DE033-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Terphenyls</b>			<b>mg/kg</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
10318	m-Terphenyl	92-06-8	1.6	U	1.6	3.8		1
10318	o-Terphenyl	84-15-1	1.6	U	1.6	3.8		1
10318	p-Terphenyl	92-94-4	1.6	U	1.6	3.8		1
<b>Metals</b>			<b>mg/kg</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
01643	Aluminum	7429-90-5	11,700		5.40	21.5		1
07914	Boron	7440-42-8	2.73	J	0.956	5.37		1
01650	Calcium	7440-70-2	2,010		6.58	21.5		1
01654	Iron	7439-89-6	16,800		5.06	21.5		1
01656	Lithium	7439-93-2	15.6		0.24	2.1		1
01657	Magnesium	7439-95-4	3,030		2.73	10.7		1
06958	Manganese	7439-96-5	515		0.0838	0.537		1
10145	Phosphorus	7723-14-0	215		0.601	10.7		1
01662	Potassium	7440-09-7	1,680		19.3	53.7		1
01667	Sodium	7440-23-5	138		40.1	107		1
07968	Strontium	7440-24-6	16.7		0.0666	0.537		1
06969	Tin	7440-31-5	2.05	J	1.07	10.7		1
06970	Titanium	7440-32-6	878		0.404	1.06		1
10146	Zirconium	7440-67-7	1.52	J	0.902	5.37		1
<b>SW-846 6020</b>			<b>mg/kg</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
06124	Antimony	7440-36-0	0.0882	J	0.0626	0.209		2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.								
06125	Arsenic	7440-38-2	5.87		0.0626	0.417		2
06126	Barium	7440-39-3	184		0.113	0.417		2
06127	Beryllium	7440-41-7	0.644		0.0167	0.104		2
06128	Cadmium	7440-43-9	0.247		0.0376	0.104		2
06131	Chromium	7440-47-3	18.3		0.125	0.417		2
06132	Cobalt	7440-48-4	10.5		0.0209	0.104		2
06133	Copper	7440-50-8	6.92		0.0688	0.417		2
06135	Lead	7439-92-1	4.60		0.0108	0.209		2
06138	Molybdenum	7439-98-7	0.437		0.0522	0.104		2
06139	Nickel	7440-02-0	12.4		0.104	0.417		2
06141	Selenium	7782-49-2	0.0615	J	0.0417	0.417		2
06142	Silver	7440-22-4	0.0607	J	0.0125	0.104		2
06145	Thallium	7440-28-0	0.251		0.0313	0.104		2
06148	Vanadium	7440-62-2	34.6		0.0229	0.104		2
06149	Zinc	7440-66-6	51.0		0.584	3.13		2
<b>SW-846 7471A</b>			<b>mg/kg</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
00159	Mercury	7439-97-6	0.0031	U	0.0031	0.109		1
<b>Wet Chemistry</b>			<b>mg/kg</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	4.5		0.88	1.1		1
07336	11a Anions by 300.0 - Nitrate	14797-55-8	1.5	J	0.88	1.6		1

\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.



# Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

**Sample Description:** SL-020-SA5C-SB-7.5-8.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-020-SA5C-SB-7.5-8.5

**LLI Sample #** SW 6162858  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 10:00

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3304 SDG#: DE033-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Wet Chemistry EPA 314.0</b>							
10147	7a Perchlorate EPA 314.0	14797-73-0	9.9 U	ug/kg	ug/kg	ug/kg	1
<b>SW-846 7199</b>							
05892	3a Cr VI by EPA 7199	18540-29-9	0.22 U	mg/kg	mg/kg	mg/kg	1
<b>SW-846 9012B</b>							
05895	21a Cyanide by 9012B	57-12-5	0.19 U	mg/kg	mg/kg	mg/kg	1
<b>ASTM D1498</b>							
01821	Oxidation Reduction Potential	n.a.	488	mV	mV	mV	1
The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.							
<b>SW-846 9045C modified</b>							
00394	22a pH by 9045C	n.a.	7.09	Std. Units	Std. Units	Std. Units	1
<b>Wet Chemistry EPA 160.3 modified</b>							
11624	28a Moisture Content by 160.3	n.a.	8.7	%	%	%	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.							

### General Sample Comments

State of California Lab Certification No. 2501  
 The volatile analysis was performed on soil from SL-020-SA5C-SB-8.0.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06192	1a Volatile Organics EPA 8260B	SW-846 8260B	1	B103481AA	12/14/2010 13:29	Nicholas R Rossi	0.77
10326	14a 1,4-Dioxane by 8260B SIM	SW-846 8260B SIM	1	E103492AA	12/15/2010 16:36	Jason M Long	19.75
08390	GC/MS - HL Encore Prep	SW-846 5035	1	201034723285	12/10/2010 12:25	Stephanie A Sanchez	n.a.
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035	1	201034723283	12/10/2010 12:26	Stephanie A Sanchez	n.a.
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035	2	201034723283	12/10/2010 12:26	Stephanie A Sanchez	n.a.

\*-This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-020-SA5C-SB-7.5-8.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-020-SA5C-SB-7.5-8.5

**LLI Sample #** SW 6162858  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 10:00

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3304 SDG#: DE033-04

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07578	GC/MS-HL Encore Prep-NC	SW-846 5035	1	201034723285	12/10/2010 12:25	Stephanie A Sanchez	n.a.
11622	19a NDMA by 1625C	EPA 1625C	1	10350SLF026	12/24/2010 22:33	Timothy J Trees	1
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10348SLG026	12/22/2010 11:33	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10349SLF026	12/22/2010 07:05	Mark A Clark	1
11630	NDMA Soil Microwave	SW-846 3546	1	10350SLF026	12/17/2010 01:00	Sherry L Morrow	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10349SLF026	12/16/2010 07:00	Joseph S Feister	1
00381	BNA Soil Sonication	SW-846 3550B	1	10348SLG026	12/15/2010 07:05	Joseph S Feister	1
05551	9a TPH by EPA 8015B Gas C5-C12	TPH GRO SW-846 8015B mod	1	10348A34A	12/15/2010 01:36	Marie D John	19.97
06130	GC - 5 g HL Encore Prep	SW-846 5035	1	201034723285	12/10/2010 12:25	Stephanie A Sanchez	n.a.
10132	20a Energetics by 8330A	SW-846 8330A	1	103510022A	12/21/2010 04:41	Michele D Hamilton	1
04173	17a Formaldehyde by 8315A	SW-846 8315A	1	103480008A	12/17/2010 17:43	Michele D Hamilton	1
06557	6a Perchlorate EPA 6850	SW-846 6850 1/2007	1	103490017A	12/17/2010 15:28	Richard A Shober	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	103490013A	12/19/2010 08:38	Lindsey K Lafferty	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	103490013A	12/15/2010 21:05	Karen L Beyer	1
06568	Perchlorate Soil Prep	SW-846 6850 1/2007	1	103490017A	12/16/2010 09:10	Maria Davenport	1
05876	Formaldehyde Solid Extraction	SW-846 8315A	1	103480008A	12/14/2010 15:00	Kelli M Barto	1
11137	Energetics Extraction	SW-846 8330	1	103510022A	12/19/2010 17:00	Wanda F Oswald	1
10199	9a TPH by EPA 8015B Oil/Diesel	SW-846 8015B modified	1	103490010A	12/21/2010 04:40	Heather E Williams	1
10501	25a Alcohols by 8015B	SW-846 8015B	1	103480002A	12/14/2010 19:41	Dustin A Underkoffler	1
08283	27a Glycols by 8015B	SW-846 8015B modified	1	103480018A	12/14/2010 22:55	Robert Brown	1
10318	26a Terphenyls by 8015B	SW-846 8015B	1	103500031A	12/17/2010 19:18	Heather E Williams	1
11238	EFH Extraction - Soils	SW-846 3550B	1	103490010A	12/15/2010 19:30	Sally L Appleyard	1
10303	Terphenyls soil prep	SW-846 3550B	1	103500031A	12/17/2010 07:00	Kerrie A Freeburn	1
11551	Direct Inj. Solids Glycol Ext.	SW-846 8015B	1	103480018A	12/14/2010 13:00	Dustin A Underkoffler	1
00380	Direct Injection Solids Ext	SW-846 8015B	1	103480002A	12/14/2010 13:00	Dustin A Underkoffler	1
01643	Aluminum	SW-846 6010B	1	103495708002	12/16/2010 17:13	Eric L Eby	1
07914	Boron	SW-846 6010B	1	103495708002	12/16/2010 05:12	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	103495708002	12/16/2010 05:12	Tara L Snyder	1
01654	Iron	SW-846 6010B	1	103495708002	12/16/2010 05:12	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	103495708002	12/16/2010 05:12	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	103495708002	12/16/2010 05:12	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	103495708002	12/16/2010 05:12	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	103495708002	12/16/2010 05:12	Tara L Snyder	1

\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-020-SA5C-SB-7.5-8.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-020-SA5C-SB-7.5-8.5

**LLI Sample #** SW 6162858  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 10:00

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3304 SDG#: DE033-04

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01662	Potassium	SW-846 6010B	1	103495708002	12/16/2010 05:12	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	103495708002	12/16/2010 05:12	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	103495708002	12/16/2010 05:12	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	103495708002	12/16/2010 05:12	Tara L Snyder	1
06970	Titanium	SW-846 6010B	1	103505708003	12/20/2010 17:08	John P Hook	1
10146	Zirconium	SW-846 6010B	1	103495708002	12/16/2010 05:12	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	103491026002A	12/17/2010 15:34	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103491026002A	12/17/2010 15:34	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103491026002D	12/17/2010 15:34	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103491026002A	12/17/2010 15:34	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103491026002A	12/17/2010 15:34	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103491026002A	12/17/2010 15:34	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103491026002A	12/17/2010 15:34	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103491026002A	12/17/2010 15:34	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103491026002A	12/17/2010 15:34	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103491026002C	12/21/2010 18:11	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103491026002A	12/17/2010 15:34	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103491026002B	12/17/2010 15:34	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103491026002A	12/17/2010 15:34	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103491026002A	12/17/2010 15:34	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103491026002A	12/17/2010 15:34	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	103491026002A	12/17/2010 15:34	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	103495711002	12/15/2010 19:49	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	103495708002	12/15/2010 10:35	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	103505708003	12/17/2010 19:17	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103491026002	12/15/2010 11:08	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	103495711002	12/15/2010 12:17	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10352352201A	12/20/2010 15:36	Ashley M Adams	1
07336	11a Anions by 300.0 - Nitrate	EPA 300.0	1	10352352201A	12/20/2010 15:36	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10354354201B	12/22/2010 00:10	Venia B McFadden	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	10356243201A	12/28/2010 19:09	Ashley M Adams	1
05895	21a Cyanide by 9012B	SW-846 9012B	1	10355102202A	12/21/2010 20:20	Joseph E McKenzie	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10352352201A	12/19/2010 16:30	Joseph E McKenzie	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10354354201B	12/20/2010 19:00	Carolyn M Mastropietro	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	10355102202A	12/21/2010 15:35	Carolyn M Mastropietro	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10348182101A	12/14/2010 09:00	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10348039401A	12/14/2010 09:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10356243201A	12/22/2010 20:10	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	1	10364162401A	12/31/2010 05:52	William C Schwebel	1

\*—This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** TB-120810 Water  
 SSFL Area IV Collocated Soil Sampling  
 TB-120810

LLI Sample # WW 6162859  
 LLI Group # 1225035  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 16:30

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3305 SDG#: DE033-05TB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method	As Received Limit*	As Received Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10904	Acetone	67-64-1	6 U	6	20		1	
10904	Benzene	71-43-2	0.5 U	0.5	5		1	
10904	Bromobenzene	108-86-1	1 U	1	5		1	
10904	Bromochloromethane	74-97-5	1 U	1	5		1	
10904	Bromodichloromethane	75-27-4	1 U	1	5		1	
10904	Bromoform	75-25-2	1 U	1	5		1	
10904	Bromomethane	74-83-9	1 U	1	5		1	
10904	2-Butanone	78-93-3	3 U	3	10		1	
10904	n-Butylbenzene	104-51-8	1 U	1	5		1	
10904	sec-Butylbenzene	135-98-8	1 U	1	5		1	
10904	tert-Butylbenzene	98-06-6	1 U	1	5		1	
10904	Carbon Tetrachloride	56-23-5	1 U	1	5		1	
10904	Chlorobenzene	108-90-7	0.8 U	0.8	5		1	
10904	Chloroethane	75-00-3	1 U	1	5		1	
10904	2-Chloroethyl Vinyl Ether	110-75-8	2 U	2	10		1	
	2-Chloroethyl vinyl ether may not be recovered if acid was used to preserve this sample.							
10904	Chloroform	67-66-3	0.8 U	0.8	5		1	
10904	Chloromethane	74-87-3	1 U	1	5		1	
10904	2-Chlorotoluene	95-49-8	1 U	1	5		1	
10904	4-Chlorotoluene	106-43-4	1 U	1	5		1	
10904	Chlorotrifluoroethene	79-38-9	2 U	2	5		1	
10904	1,2-Dibromo-3-chloropropane	96-12-8	2 U	2	5		1	
10904	Dibromochloromethane	124-48-1	1 U	1	5		1	
10904	1,2-Dibromoethane	106-93-4	1 U	1	5		1	
10904	Dibromomethane	74-95-3	1 U	1	5		1	
10904	1,2-Dichlorobenzene	95-50-1	1 U	1	5		1	
10904	1,3-Dichlorobenzene	541-73-1	1 U	1	5		1	
10904	1,4-Dichlorobenzene	106-46-7	1 U	1	5		1	
10904	Dichlorodifluoromethane	75-71-8	2 U	2	5		1	
10904	1,1-Dichloroethane	75-34-3	1 U	1	5		1	
10904	1,2-Dichloroethane	107-06-2	1 U	1	5		1	
10904	1,1-Dichloroethene	75-35-4	0.8 U	0.8	5		1	
10904	cis-1,2-Dichloroethene	156-59-2	0.8 U	0.8	5		1	
10904	trans-1,2-Dichloroethene	156-60-5	0.8 U	0.8	5		1	
10904	1,2-Dichloropropane	78-87-5	1 U	1	5		1	
10904	1,3-Dichloropropane	142-28-9	1 U	1	5		1	
10904	2,2-Dichloropropane	594-20-7	1 U	1	5		1	
10904	1,1-Dichloropropene	563-58-6	1 U	1	5		1	
10904	cis-1,3-Dichloropropene	10061-01-5	1 U	1	5		1	
10904	trans-1,3-Dichloropropene	10061-02-6	1 U	1	5		1	
10904	Ethylbenzene	100-41-4	0.8 U	0.8	5		1	
10904	Freon 113	76-13-1	2 U	2	10		1	
10904	Freon 133a	75-88-7	2 U	2	5		1	
10904	Hexachlorobutadiene	87-68-3	2 U	2	5		1	
10904	2-Hexanone	591-78-6	3 U	3	10		1	
10904	Isopropylbenzene	98-82-8	1 U	1	5		1	
10904	p-Isopropyltoluene	99-87-6	1 U	1	5		1	
10904	Methyl Tertiary Butyl Ether	1634-04-4	0.5 U	0.5	5		1	
10904	4-Methyl-2-pentanone	108-10-1	3 U	3	10		1	

\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** TB-120810 Water  
 SSFL Area IV Collocated Soil Sampling  
 TB-120810

LLI Sample # WW 6162859  
 LLI Group # 1225035  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 16:30

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3305 SDG#: DE033-05TB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS Volatiles SW-846 8260B</b>			ug/l	ug/l	ug/l	ug/l	
10904	Methylene Chloride	75-09-2	2 U	2	5		1
10904	n-Propylbenzene	103-65-1	1 U	1	5		1
10904	Styrene	100-42-5	1 U	1	5		1
10904	1,1,1,2-Tetrachloroethane	630-20-6	1 U	1	5		1
10904	1,1,2,2-Tetrachloroethane	79-34-5	1 U	1	5		1
10904	Tetrachloroethene	127-18-4	0.8 U	0.8	5		1
10904	Toluene	108-88-3	0.7 U	0.7	5		1
10904	1,2,3-Trichlorobenzene	87-61-6	1 U	1	5		1
10904	1,2,4-Trichlorobenzene	120-82-1	1 U	1	5		1
10904	1,1,1-Trichloroethane	71-55-6	0.8 U	0.8	5		1
10904	1,1,2-Trichloroethane	79-00-5	0.8 U	0.8	5		1
10904	Trichloroethene	79-01-6	1 U	1	5		1
10904	Trichlorofluoromethane	75-69-4	2 U	2	5		1
10904	1,2,3-Trichloropropane	96-18-4	1 U	1	5		1
10904	1,2,4-Trimethylbenzene	95-63-6	1 U	1	5		1
10904	1,3,5-Trimethylbenzene	108-67-8	1 U	1	5		1
10904	Vinyl Chloride	75-01-4	1 U	1	5		1
10904	m+p-Xylene	179601-23-1	0.8 U	0.8	5		1
10904	o-Xylene	95-47-6	0.8 U	0.8	5		1
<b>GC/MS Volatiles SW-846 8260B SIM</b>			ug/l	ug/l	ug/l	ug/l	
00527	1,4-Dioxane	123-91-1	0.5 U	0.5	2.0		1
<b>GC Volatiles TPH GRO SW-8015B</b>			ug/l	ug/l	ug/l	ug/l	
08229	TPH-GRO S.CA water C5-C12	n.a.	20 U	20	50		1

### General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10904	1b Volatile Organics EPA8260	SW-846 8260B	1	Y103462AA	12/13/2010 16:49	Nicholas R Rossi	1
00527	14b 1,4-Dioxane by 8260B SIM	SW-846 8260B SIM	1	E103491AA	12/15/2010 10:07	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Y103462AA	12/13/2010 16:49	Nicholas R Rossi	1
01163	GC/MS VOA Water Prep	SW-846 5030B	2	E103491AA	12/15/2010 10:07	Jason M Long	1
08229	9b TPH by EPA 8015B Gas C5-C12	TPH GRO SW-8015B	1	10351B53B	12/19/2010 19:08	Carrie E Miller	1
01146	GC VOA Water Prep	SW-846 5030B	1	10351B53B	12/19/2010 19:08	Carrie E Miller	1

\*—This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-016-SA5C-SB-4.0-5.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-016-SA5C-SB-4.0-5.0

LLI Sample # SW 6162860  
 LLI Group # 1225035  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 16:10

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3306 SDG#: DE033-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
06192	Acetone	67-64-1	6.0 U	6.0	7.2		0.82
06192	Benzene	71-43-2	0.09 U	0.09	3.6		0.82
06192	Bromobenzene	108-86-1	0.12 U	0.12	3.6		0.82
06192	Bromochloromethane	74-97-5	0.30 U	0.30	3.6		0.82
06192	Bromodichloromethane	75-27-4	0.07 U	0.07	3.6		0.82
06192	Bromoform	75-25-2	0.36 U	0.36	3.6		0.82
06192	Bromomethane	74-83-9	0.22 U	0.22	3.6		0.82
06192	2-Butanone	78-93-3	1.1 U	1.1	7.2		0.82
06192	n-Butylbenzene	104-51-8	0.11 U	0.11	3.6		0.82
06192	sec-Butylbenzene	135-98-8	0.05 U	0.05	3.6		0.82
06192	tert-Butylbenzene	98-06-6	0.14 U	0.14	3.6		0.82
06192	Carbon Tetrachloride	56-23-5	0.13 U	0.13	3.6		0.82
06192	Chlorobenzene	108-90-7	0.1 U	0.1	3.6		0.82
06192	Chloroethane	75-00-3	0.12 U	0.12	3.6		0.82
06192	2-Chloroethyl Vinyl Ether	110-75-8	0.27 U	0.27	3.6		0.82
06192	Chloroform	67-66-3	0.15 J	0.11	3.6		0.82
06192	Chloromethane	74-87-3	0.30 U	0.30	3.6		0.82
06192	2-Chlorotoluene	95-49-8	0.13 U	0.13	3.6		0.82
06192	4-Chlorotoluene	106-43-4	0.13 U	0.13	3.6		0.82
06192	Chlorotrifluoroethene	79-38-9	0.45 U	0.45	4.5		0.82
06192	1,2-Dibromo-3-chloropropane	96-12-8	0.63 U	0.63	3.6		0.82
06192	Dibromochloromethane	124-48-1	0.18 U	0.18	3.6		0.82
06192	1,2-Dibromoethane	106-93-4	0.15 U	0.15	3.6		0.82
06192	Dibromomethane	74-95-3	0.21 U	0.21	3.6		0.82
06192	1,2-Dichlorobenzene	95-50-1	0.08 U	0.08	3.6		0.82
06192	1,3-Dichlorobenzene	541-73-1	0.11 U	0.11	3.6		0.82
06192	1,4-Dichlorobenzene	106-46-7	0.14 U	0.14	3.6		0.82
06192	Dichlorodifluoromethane	75-71-8	0.11 U	0.11	3.6		0.82
06192	1,1-Dichloroethane	75-34-3	0.09 U	0.09	3.6		0.82
06192	1,2-Dichloroethane	107-06-2	0.13 U	0.13	3.6		0.82
06192	1,1-Dichloroethene	75-35-4	0.35 U	0.35	3.6		0.82
06192	cis-1,2-Dichloroethene	156-59-2	0.17 U	0.17	3.6		0.82
06192	trans-1,2-Dichloroethene	156-60-5	0.11 U	0.11	3.6		0.82
06192	1,2-Dichloropropane	78-87-5	0.15 U	0.15	3.6		0.82
06192	1,3-Dichloropropane	142-28-9	0.07 U	0.07	3.6		0.82
06192	2,2-Dichloropropane	594-20-7	0.15 U	0.15	3.6		0.82
06192	1,1-Dichloropropene	563-58-6	0.12 U	0.12	3.6		0.82
06192	cis-1,3-Dichloropropene	10061-01-5	0.14 U	0.14	3.6		0.82
06192	trans-1,3-Dichloropropene	10061-02-6	0.15 U	0.15	3.6		0.82
06192	Ethylbenzene	100-41-4	0.05 U	0.05	3.6		0.82
06192	Freon 113	76-13-1	0.1 U	0.1	3.6		0.82
06192	Freon 133a	75-88-7	0.45 U	0.45	4.5		0.82
06192	Hexachlorobutadiene	87-68-3	0.13 U	0.13	3.6		0.82
06192	2-Hexanone	591-78-6	1.4 U	1.4	7.2		0.82
06192	Isopropylbenzene	98-82-8	0.05 U	0.05	3.6		0.82
06192	p-Isopropyltoluene	99-87-6	0.1 U	0.1	3.6		0.82
06192	Methyl Tertiary Butyl Ether	1634-04-4	0.19 U	0.19	3.6		0.82
06192	4-Methyl-2-pentanone	108-10-1	0.35 U	0.35	7.2		0.82
06192	Methylene Chloride	75-09-2	3.8	0.21	3.6		0.82
06192	n-Propylbenzene	103-65-1	0.06 U	0.06	3.6		0.82

\*=This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-016-SA5C-SB-4.0-5.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-016-SA5C-SB-4.0-5.0

**LLI Sample #** SW 6162860  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 16:10

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3306 SDG#: DE033-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS Volatiles SW-846 8260B</b>							
06192	Styrene	100-42-5	0.09 U	0.09	3.6		0.82
06192	1,1,1,2-Tetrachloroethane	630-20-6	0.1 U	0.1	3.6		0.82
06192	1,1,2,2-Tetrachloroethane	79-34-5	0.21 U	0.21	3.6		0.82
06192	Tetrachloroethene	127-18-4	0.18 U	0.18	3.6		0.82
06192	Toluene	108-88-3	0.13 J	0.07	3.6		0.82
06192	1,2,3-Trichlorobenzene	87-61-6	0.13 U	0.13	3.6		0.82
06192	1,2,4-Trichlorobenzene	120-82-1	0.16 U	0.16	3.6		0.82
06192	1,1,1-Trichloroethane	71-55-6	0.18 U	0.18	3.6		0.82
06192	1,1,2-Trichloroethane	79-00-5	0.24 U	0.24	3.6		0.82
06192	Trichloroethene	79-01-6	0.13 U	0.13	3.6		0.82
06192	Trichlorofluoromethane	75-69-4	0.26 U	0.26	3.6		0.82
06192	1,2,3-Trichloropropane	96-18-4	0.30 U	0.30	3.6		0.82
06192	1,2,4-Trimethylbenzene	95-63-6	0.36 U	0.36	3.6		0.82
06192	1,3,5-Trimethylbenzene	108-67-8	0.09 U	0.09	3.6		0.82
06192	Vinyl Chloride	75-01-4	0.18 U	0.18	3.6		0.82
06192	m+p-Xylene	179601-23-1	0.15 U	0.15	3.6		0.82
06192	o-Xylene	95-47-6	0.15 U	0.15	3.6		0.82
<b>GC/MS Volatiles SW-846 8260B SIM</b>							
10326	1,4-Dioxane	123-91-1	4.6 U	4.6	14		21.19
<b>GC/MS Semivolatiles EPA 1625C</b>							
11622	N-Nitrosodimethylamine	62-75-9	22.3 J	18.3	36.5		1
<b>GC/MS Semivolatiles SW-846 8270C</b>							
04688	Aniline	62-53-3	180	U 180	550		1
04688	Benzidine	92-87-5	1,300	U 1,300	3,700		1
04688	Benzoic acid	65-85-0	180	U 180	550		1
04688	Benzyl alcohol	100-51-6	180	U 180	550		1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180		1
04688	Carbazole	86-74-8	18	U 18	180		1
04688	4-Chloro-3-methylphenol	59-50-7	37	U 37	180		1
04688	4-Chloroaniline	106-47-8	73	U 73	180		1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180		1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180		1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180		1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180		1
04688	2-Chlorophenol	95-57-8	18	U 18	180		1
04688	4-Chlorophenyl-phenylether	7005-72-3	37	U 37	180		1
04688	Dibenzofuran	132-64-9	18	U 18	180		1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180		1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180		1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180		1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	370		1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180		1
04688	2,4-Dimethylphenol	105-67-9	37	U 37	180		1
04688	3,5-Dimethylphenol	108-68-9	37	U 37	180		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	550		1
04688	2,4-Dinitrophenol	51-28-5	730	U 730	2,200		1

\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-016-SA5C-SB-4.0-5.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-016-SA5C-SB-4.0-5.0

LLI Sample # SW 6162860  
 LLI Group # 1225035  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 16:10

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3306 SDG#: DE033-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04688	2,4-Dinitrotoluene	121-14-2	37	U 37	180		1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180		1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180		1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	21	J 18	370		1
04688	Hexachlorobenzene	118-74-1	18	U 18	180		1
04688	Hexachlorobutadiene	87-68-3	73	U 73	180		1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	550		1
04688	Hexachloroethane	67-72-1	18	U 18	180		1
04688	Isophorone	78-59-1	18	U 18	180		1
04688	2-Methylphenol	95-48-7	37	U 37	180		1
04688	4-Methylphenol	106-44-5	37	U 37	180		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	18	U 18	180		1
04688	3-Nitroaniline	99-09-2	37	U 37	180		1
04688	4-Nitroaniline	100-01-6	73	U 73	180		1
04688	Nitrobenzene	98-95-3	18	U 18	180		1
04688	2-Nitrophenol	88-75-5	18	U 18	180		1
04688	4-Nitrophenol	100-02-7	180	U 180	550		1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180		1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	180	U 180	550		1
04688	Phenol	108-95-2	18	U 18	180		1
04688	1,2,4-Trichlorobenzene	120-82-1	18	U 18	180		1
04688	2,4,5-Trichlorophenol	95-95-4	37	U 37	180		1
04688	2,4,6-Trichlorophenol	88-06-2	37	U 37	180		1

The LCS recovery is outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance:  
 bis(2-chloroisopropyl)ether

GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	ug/kg
10138	Acenaphthene	83-32-9	0.73	U 0.73	1.8	1
10138	Acenaphthylene	208-96-8	0.37	U 0.37	1.8	1
10138	Anthracene	120-12-7	0.37	U 0.37	1.8	1
10138	Benzo(a)anthracene	56-55-3	0.73	U 0.73	1.8	1
10138	Benzo(a)pyrene	50-32-8	0.73	U 0.73	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	0.73	U 0.73	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	0.73	U 0.73	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	0.73	U 0.73	1.8	1
10138	Butylbenzylphthalate	85-68-7	6.6	U 6.6	20	1
10138	Di-n-butylphthalate	84-74-2	6.6	U 6.6	20	1
10138	Chrysene	218-01-9	0.37	U 0.37	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.73	U 0.73	1.8	1
10138	Diethylphthalate	84-66-2	6.6	U 6.6	20	1
10138	Dimethylphthalate	131-11-3	6.6	U 6.6	20	1

\*=This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-016-SA5C-SB-4.0-5.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-016-SA5C-SB-4.0-5.0

**LLI Sample #** SW 6162860  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 16:10

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3306 SDG#: DE033-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS Semivolatiles SW-846 8270C SIM</b>							
10138	Fluoranthene	206-44-0	0.73 U	0.73	1.8	ug/kg	1
10138	Fluorene	86-73-7	0.73 U	0.73	1.8	ug/kg	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.73 U	0.73	1.8	ug/kg	1
10138	1-Methylnaphthalene	90-12-0	0.73 U	0.73	1.8	ug/kg	1
10138	2-Methylnaphthalene	91-57-6	0.73 U	0.73	1.8	ug/kg	1
10138	Naphthalene	91-20-3	0.73 U	0.73	1.8	ug/kg	1
10138	N-Nitrosodimethylamine	62-75-9	0.73 U	0.73	1.8	ug/kg	1
10138	Di-n-octylphthalate	117-84-0	6.6 U	6.6	20	ug/kg	1
10138	Phenanthrene	85-01-8	0.73 U	0.73	1.8	ug/kg	1
10138	Pyrene	129-00-0	0.73 U	0.73	1.8	ug/kg	1
<b>GC Volatiles TPH GRO SW-846 8015B mod</b>							
05551	9a TPH by EPA 8015B Gas C5-C12	n.a.	0.2 U	0.2	0.9	mg/kg	19.75
<b>Explosives SW-846 8330A</b>							
10132	4-Amino-2,6-Dinitrotoluene	19406-51-0	82 U	82	160	1000000	1
10132	2-Amino-4,6-Dinitrotoluene	35572-78-2	55 U	55	160	1000000	1
10132	2,6-Diamino-4-nitrotoluene	59229-75-3	110 U	110	330	1000000	1
10132	2,4-Diamino-6-nitrotoluene	6629-29-4	110 U	110	330	1000000	1
10132	1,3-Dinitrobenzene	99-65-0	55 U	55	160	1000000	1
10132	2,4-Dinitrotoluene	121-14-2	55 U	55	160	1000000	1
10132	2,6-Dinitrotoluene	606-20-2	55 U	55	160	1000000	1
10132	HMX	2691-41-0	140 U	140	410	1000000	1
10132	Nitrobenzene	98-95-3	55 U	55	160	1000000	1
10132	Nitroglycerin	55-63-0	1,100 U	1,100	3,300	1000000	1
10132	2-Nitrotoluene	88-72-2	110 U	110	160	1000000	1
10132	3-Nitrotoluene	99-08-1	140 U	140	160	1000000	1
10132	4-Nitrotoluene	99-99-0	110 U	110	160	1000000	1
10132	PETN	78-11-5	1,100 U	1,100	3,300	1000000	1
10132	RDX	121-82-4	69 U	69	160	1000000	1
10132	Tetryl	479-45-8	84 U	84	160	1000000	1

\*—This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.



# Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

**Sample Description:** SL-016-SA5C-SB-4.0-5.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-016-SA5C-SB-4.0-5.0

**LLI Sample #** SW 6162860  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 16:10

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3306 SDG#: DE033-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Explosives</b>							
	<b>SW-846 8330A</b>		<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10132	1,3,5-Trinitrobenzene	99-35-4	55	U 55	160	1000000	1
10132	2,4,6-Trinitrotoluene	118-96-7	55	U 55	160	1000000	1
<b>HPLC Organics</b>							
	<b>SW-846 8315A</b>		<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04173	17a Formaldehyde by 8315A	50-00-0	660	U 660	1,600		1
<b>Perchlorate</b>							
	<b>SW-846 6850 1/2007</b>		<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
06557	6a Perchlorate EPA 6850	14797-73-0	2.3	U 2.3	5.5		1
<b>Pesticides/PCBs</b>							
	<b>SW-846 8082</b>		<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10225	Aroclor 5432	63496-31-1	1.1	U 1.1	3.6		1
10225	Aroclor 5442	12642-23-8	1.1	U 1.1	3.6		1
10225	Aroclor 5460	11126-42-4	1.1	U 1.1	3.6		1
10225	PCB-1016	12674-11-2	0.36	U 0.36	1.9		1
10225	PCB-1221	11104-28-2	0.55	U 0.55	1.9		1
10225	PCB-1232	11141-16-5	0.57	U 0.57	1.9		1
10225	PCB-1242	53469-21-9	0.55	U 0.55	1.9		1
10225	PCB-1248	12672-29-6	0.36	U 0.36	1.9		1
10225	PCB-1254	11097-69-1	0.36	U 0.36	1.9		1
10225	PCB-1260	11096-82-5	0.36	U 0.36	1.9		1
10225	PCB-1262	37324-23-5	0.36	U 0.36	1.9		1
10225	PCB-1268	11100-14-4	0.36	U 0.36	1.9		1

The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.

GC Extractable TPH	SW-846 8015B modified	mg/kg	mg/kg	mg/kg	mg/kg
10199	EFH (C12-C14)	n.a.	0.44	U 0.44	1.3
10199	EFH (C15-C20)	n.a.	0.53	J 0.44	1.3
10199	EFH (C21-C30)	n.a.	10	0.44	1.3
10199	EFH (C30 - C40)	n.a.	24	0.44	1.3
10199	EFH (C8-C11)	n.a.	0.44	U 0.44	1.3

GC Miscellaneous	SW-846 8015B	ug/kg	ug/kg	ug/kg	ug/kg
10501	Ethanol	64-17-5	110	U 110	550
10501	Isopropanol	67-63-0	110	U 110	550
10501	Methanol	67-56-1	110	U 110	550

GC Miscellaneous	SW-846 8015B modified	mg/kg	mg/kg	mg/kg	mg/kg
08283	Diethylene glycol	111-46-6	5.5	U 5.5	14
08283	Ethylene glycol	107-21-1	5.5	U 5.5	14
08283	Propylene glycol	57-55-6	5.5	U 5.5	14

The sample was injected numerous times. Each time the responses for various analytes in the calibration check standard injected after the sample were

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 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-016-SA5C-SB-4.0-5.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-016-SA5C-SB-4.0-5.0

**LLI Sample #** SW 6162860  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 16:10

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3306 SDG#: DE033-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
outside the acceptance criteria. Therefore, this effect is attributed to the sample matrix and the data is reported.							
<b>Terphenyls</b>		<b>SW-846 8015B</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
10318	m-Terphenyl	92-06-8	1.6 U	1.6	3.8		1
10318	o-Terphenyl	84-15-1	1.6 U	1.6	3.8		1
10318	p-Terphenyl	92-94-4	1.6 U	1.6	3.8		1
<b>Metals</b>		<b>SW-846 6010B</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
01643	Aluminum	7429-90-5	13,500	5.46	21.7		1
07914	Boron	7440-42-8	2.34 J	0.966	5.43		1
01650	Calcium	7440-70-2	5,730	6.65	21.7		1
01654	Iron	7439-89-6	20,200	5.11	21.7		1
01656	Lithium	7439-93-2	19.5	0.24	2.2		1
01657	Magnesium	7439-95-4	4,110	2.76	10.9		1
06958	Manganese	7439-96-5	371	0.0847	0.543		1
10145	Phosphorus	7723-14-0	361	0.608	10.9		1
01662	Potassium	7440-09-7	2,810	19.5	54.3		1
01667	Sodium	7440-23-5	213	40.5	109		1
07968	Strontium	7440-24-6	24.8	0.0673	0.543		1
06969	Tin	7440-31-5	2.23 J	1.09	10.9		1
06970	Titanium	7440-32-6	1,210	0.817	2.15		2
10146	Zirconium	7440-67-7	1.58 J	0.912	5.43		1
		<b>SW-846 6020</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
06124	Antimony	7440-36-0	0.0633 U	0.0633	0.211		2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.							
06125	Arsenic	7440-38-2	4.44	0.0633	0.422		2
06126	Barium	7440-39-3	97.0	0.114	0.422		2
06127	Beryllium	7440-41-7	0.510	0.0169	0.105		2
06128	Cadmium	7440-43-9	0.0751 J	0.0380	0.105		2
06131	Chromium	7440-47-3	16.8	0.127	0.422		2
06132	Cobalt	7440-48-4	5.61	0.0211	0.105		2
06133	Copper	7440-50-8	8.21	0.0696	0.422		2
06135	Lead	7439-92-1	5.60	0.0110	0.211		2
06138	Molybdenum	7439-98-7	0.456	0.0527	0.105		2
06139	Nickel	7440-02-0	9.36	0.105	0.422		2
06141	Selenium	7782-49-2	0.124 J	0.0422	0.422		2
06142	Silver	7440-22-4	0.0261 J	0.0127	0.105		2
06145	Thallium	7440-28-0	0.269	0.0316	0.105		2
06148	Vanadium	7440-62-2	36.5	0.0232	0.105		2
06149	Zinc	7440-66-6	59.2	0.590	3.16		2
		<b>SW-846 7471A</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
00159	Mercury	7439-97-6	0.0031 U	0.0031	0.107		1
<b>Wet Chemistry</b>		<b>EPA 300.0</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	3.6	0.88	1.1		1

\*=This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.



# Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

**Sample Description:** SL-016-SA5C-SB-4.0-5.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-016-SA5C-SB-4.0-5.0

LLI Sample # SW 6162860  
 LLI Group # 1225035  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 16:10

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3306 SDG#: DE033-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Wet Chemistry EPA 300.0</b>							
07336	11a Anions by 300.0 - Nitrate	14797-55-8	2.9	0.88	1.6	mg/kg	1
<b>EPA 314.0</b>							
10147	7a Perchlorate EPA 314.0	14797-73-0	9.9 U	9.9	32.9	ug/kg	1
<b>SW-846 7199</b>							
05892	3a Cr VI by EPA 7199	18540-29-9	0.22 U	0.22	1.1	mg/kg	1
<b>SW-846 9012B</b>							
05895	21a Cyanide by 9012B	57-12-5	0.20 U	0.20	0.54	mg/kg	1
<b>ASTM D1498</b>							
01821	Oxidation Reduction Potential	n.a.	476	10.0	10.0	mV	1
The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.							
<b>SW-846 9045C modified</b>							
00394	22a pH by 9045C	n.a.	8.27	0.0100	0.0100	Std. Units	1
<b>Wet Chemistry EPA 160.3 modified</b>							
11624	28a Moisture Content by 160.3	n.a.	8.8	0.50	0.50	%	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.							

### General Sample Comments

State of California Lab Certification No. 2501  
 The volatile analysis was performed on soil from SL-016-SA5C-SB-4.5.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06192	1a Volatile Organics EPA 8260B	SW-846 8260B	1	B103481AA	12/14/2010 13:51	Nicholas R Rossi	0.82
10326	14a 1,4-Dioxane by 8260B SIM	SW-846 8260B SIM	1	E103492AA	12/15/2010 16:56	Jason M Long	21.19
08390	GC/MS - HL Encore Prep	SW-846 5035	1	201034723285	12/10/2010 12:28	Stephanie A Sanchez	n.a.

\*=This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description: SL-016-SA5C-SB-4.0-5.0 Soil**  
**SSFL Area IV Collocated Soil Sampling**  
**SL-016-SA5C-SB-4.0-5.0**

**LLI Sample # SW 6162860**  
**LLI Group # 1225035**  
**Account # 13013**

**Project Name: SSFL Area IV Collocated Soil Sampling**

Collected: 12/08/2010 16:10

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3306 SDG#: DE033-06

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035	1	201034723283	12/10/2010 12:31	Stephanie A Sanchez	n.a.
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035	2	201034723283	12/10/2010 12:31	Stephanie A Sanchez	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035	1	201034723285	12/10/2010 12:28	Stephanie A Sanchez	n.a.
11622	19a NDMA by 1625C	EPA 1625C	1	10350SLF026	12/24/2010 22:50	Timothy J Trees	1
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10348SLG026	12/22/2010 11:59	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10349SLF026	12/22/2010 07:38	Mark A Clark	1
11630	NDMA Soil Microwave	SW-846 3546	1	10350SLF026	12/17/2010 01:00	Sherry L Morrow	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10349SLF026	12/16/2010 07:00	Joseph S Feister	1
00381	BNA Soil Sonication	SW-846 3550B	1	10348SLG026	12/15/2010 07:05	Joseph S Feister	1
05551	9a TPH by EPA 8015B Gas C5-C12	TPH GRO SW-846 8015B mod	1	10340B34B	12/14/2010 13:22	Elizabeth J Marin	19.75
06130	GC - 5 g HL Encore Prep	SW-846 5035	1	201034723285	12/10/2010 12:28	Stephanie A Sanchez	n.a.
10132	20a Energetics by 8330A	SW-846 8330A	1	103510022A	12/21/2010 05:23	Michele D Hamilton	1
04173	17a Formaldehyde by 8315A	SW-846 8315A	1	103480008A	12/17/2010 18:02	Michele D Hamilton	1
06557	6a Perchlorate EPA 6850	SW-846 6850 1/2007	1	103490017A	12/17/2010 15:34	Richard A Shober	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	103490013A	12/19/2010 08:56	Lindsey K Lafferty	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	103490013A	12/15/2010 21:05	Karen L Beyer	1
06568	Perchlorate Soil Prep	SW-846 6850 1/2007	1	103490017A	12/16/2010 09:10	Maria Davenport	1
05876	Formaldehyde Solid Extraction	SW-846 8315A	1	103480008A	12/14/2010 15:00	Kelli M Barto	1
11137	Energetics Extraction	SW-846 8330	1	103510022A	12/19/2010 17:00	Wanda F Oswald	1
10199	9a TPH by EPA 8015B Oil/Diesel	SW-846 8015B modified	1	103490010A	12/21/2010 07:34	Heather E Williams	1
10501	25a Alcohols by 8015B	SW-846 8015B	1	103480002A	12/14/2010 19:56	Dustin A Underkoffler	1
08283	27a Glycols by 8015B	SW-846 8015B modified	1	103480018A	12/15/2010 02:07	Robert Brown	1
10318	26a Terphenyls by 8015B	SW-846 8015B	1	103500031A	12/17/2010 23:03	Heather E Williams	1
11238	EFH Extraction - Soils	SW-846 3550B	1	103490010A	12/15/2010 19:30	Sally L Appleyard	1
10303	Terphenyls soil prep	SW-846 3550B	1	103500031A	12/17/2010 07:00	Kerrie A Freeburn	1
11551	Direct Inj. Solids Glycol Ext.	SW-846 8015B	1	103480018A	12/14/2010 13:00	Dustin A Underkoffler	1
00380	Direct Injection Solids Ext	SW-846 8015B	1	103480002A	12/14/2010 13:00	Dustin A Underkoffler	1
01643	Aluminum	SW-846 6010B	1	103495708002	12/16/2010 17:17	Eric L Eby	1
07914	Boron	SW-846 6010B	1	103495708002	12/16/2010 05:16	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	103495708002	12/16/2010 05:16	Tara L Snyder	1
01654	Iron	SW-846 6010B	1	103495708002	12/16/2010 05:16	Tara L Snyder	1

\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-016-SA5C-SB-4.0-5.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-016-SA5C-SB-4.0-5.0

**LLI Sample #** SW 6162860  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 16:10

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3306 SDG#: DE033-06

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01656	Lithium	SW-846 6010B	1	103495708002	12/16/2010 05:16	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	103495708002	12/16/2010 05:16	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	103495708002	12/16/2010 05:16	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	103495708002	12/16/2010 05:16	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	103495708002	12/16/2010 05:16	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	103495708002	12/16/2010 05:16	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	103495708002	12/16/2010 05:16	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	103495708002	12/16/2010 05:16	Tara L Snyder	1
06970	Titanium	SW-846 6010B	1	103505708003	12/20/2010 17:12	John P Hook	2
10146	Zirconium	SW-846 6010B	1	103495708002	12/16/2010 05:16	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	103491026002A	12/17/2010 15:37	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103491026002A	12/17/2010 15:37	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103491026002D	12/17/2010 15:37	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103491026002A	12/17/2010 15:37	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103491026002A	12/17/2010 15:37	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103491026002A	12/17/2010 15:37	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103491026002A	12/17/2010 15:37	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103491026002A	12/17/2010 15:37	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103491026002A	12/17/2010 15:37	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103491026002C	12/17/2010 15:37	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103491026002A	12/17/2010 15:37	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103491026002B	12/17/2010 15:37	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103491026002A	12/17/2010 15:37	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103491026002A	12/17/2010 15:37	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103491026002A	12/17/2010 15:37	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	103491026002A	12/17/2010 15:37	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	103495711002	12/15/2010 19:50	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	103495708002	12/15/2010 10:35	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	103505708003	12/17/2010 19:17	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103491026002	12/15/2010 11:08	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	103495711002	12/15/2010 12:17	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10352352201A	12/20/2010 16:18	Ashley M Adams	1
07336	11a Anions by 300.0 - Nitrate	EPA 300.0	1	10352352201A	12/20/2010 16:18	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10354354201B	12/22/2010 00:58	Venia B McFadden	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	10356243201A	12/28/2010 19:22	Ashley M Adams	1
05895	21a Cyanide by 9012B	SW-846 9012B	1	10355102202A	12/21/2010 20:21	Joseph E McKenzie	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10352352201A	12/19/2010 16:30	Joseph E McKenzie	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10354354201B	12/20/2010 19:00	Carolyn M Mastropietro	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	10355102202A	12/21/2010 15:35	Carolyn M Mastropietro	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10348182101A	12/14/2010 09:00	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10348039401B	12/14/2010 09:00	Michelle L Lalli	1

\*—This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.



# Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

**Sample Description:** SL-016-SA5C-SB-4.0-5.0 Soil  
SSFL Area IV Collocated Soil Sampling  
SL-016-SA5C-SB-4.0-5.0

**LLI Sample #** SW 6162860  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 16:10

CDM Federal Programs Corp.  
14420 Albemarle Point Place  
Suite 210  
Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3306 SDG#: DE033-06

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10356243201A	12/22/2010 20:10	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	1	10364162401A	12/31/2010 05:52	William C Schwebel	1

\*=This limit was used in the evaluation of the final result  
Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-016-SA5C-SB-9.0-10.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-016-SA5C-SB-9.0-10.0

LLI Sample # SW 6162861  
 LLI Group # 1225035  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 16:23

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3307 SDG#: DE033-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
06192	Acetone	67-64-1	22	6.5	7.8		0.89
06192	Benzene	71-43-2	0.1 U	0.1	3.9		0.89
06192	Bromobenzene	108-86-1	0.13 U	0.13	3.9		0.89
06192	Bromochloromethane	74-97-5	0.32 U	0.32	3.9		0.89
06192	Bromodichloromethane	75-27-4	0.08 U	0.08	3.9		0.89
06192	Bromoform	75-25-2	0.39 U	0.39	3.9		0.89
06192	Bromomethane	74-83-9	0.24 U	0.24	3.9		0.89
06192	2-Butanone	78-93-3	3.0 J	1.2	7.8		0.89
06192	n-Butylbenzene	104-51-8	0.12 U	0.12	3.9		0.89
06192	sec-Butylbenzene	135-98-8	0.06 U	0.06	3.9		0.89
06192	tert-Butylbenzene	98-06-6	0.16 U	0.16	3.9		0.89
06192	Carbon Tetrachloride	56-23-5	0.14 U	0.14	3.9		0.89
06192	Chlorobenzene	108-90-7	0.11 U	0.11	3.9		0.89
06192	Chloroethane	75-00-3	0.13 U	0.13	3.9		0.89
06192	2-Chloroethyl Vinyl Ether	110-75-8	0.29 U	0.29	3.9		0.89
06192	Chloroform	67-66-3	0.16 J	0.12	3.9		0.89
06192	Chloromethane	74-87-3	0.32 U	0.32	3.9		0.89
06192	2-Chlorotoluene	95-49-8	0.14 U	0.14	3.9		0.89
06192	4-Chlorotoluene	106-43-4	0.14 U	0.14	3.9		0.89
06192	Chlorotrifluoroethene	79-38-9	0.49 U	0.49	4.9		0.89
06192	1,2-Dibromo-3-chloropropane	96-12-8	0.68 U	0.68	3.9		0.89
06192	Dibromochloromethane	124-48-1	0.20 U	0.20	3.9		0.89
06192	1,2-Dibromoethane	106-93-4	0.17 U	0.17	3.9		0.89
06192	Dibromomethane	74-95-3	0.23 U	0.23	3.9		0.89
06192	1,2-Dichlorobenzene	95-50-1	0.09 U	0.09	3.9		0.89
06192	1,3-Dichlorobenzene	541-73-1	0.12 U	0.12	3.9		0.89
06192	1,4-Dichlorobenzene	106-46-7	0.16 U	0.16	3.9		0.89
06192	Dichlorodifluoromethane	75-71-8	0.12 U	0.12	3.9		0.89
06192	1,1-Dichloroethane	75-34-3	0.1 U	0.1	3.9		0.89
06192	1,2-Dichloroethane	107-06-2	0.15 U	0.15	3.9		0.89
06192	1,1-Dichloroethene	75-35-4	0.38 U	0.38	3.9		0.89
06192	cis-1,2-Dichloroethene	156-59-2	0.19 U	0.19	3.9		0.89
06192	trans-1,2-Dichloroethene	156-60-5	0.12 U	0.12	3.9		0.89
06192	1,2-Dichloropropane	78-87-5	0.17 U	0.17	3.9		0.89
06192	1,3-Dichloropropane	142-28-9	0.08 U	0.08	3.9		0.89
06192	2,2-Dichloropropane	594-20-7	0.17 U	0.17	3.9		0.89
06192	1,1-Dichloropropene	563-58-6	0.13 U	0.13	3.9		0.89
06192	cis-1,3-Dichloropropene	10061-01-5	0.16 U	0.16	3.9		0.89
06192	trans-1,3-Dichloropropene	10061-02-6	0.17 U	0.17	3.9		0.89
06192	Ethylbenzene	100-41-4	0.06 U	0.06	3.9		0.89
06192	Freon 113	76-13-1	0.11 U	0.11	3.9		0.89
06192	Freon 133a	75-88-7	0.49 U	0.49	4.9		0.89
06192	Hexachlorobutadiene	87-68-3	0.14 U	0.14	3.9		0.89
06192	2-Hexanone	591-78-6	1.6 U	1.6	7.8		0.89
06192	Isopropylbenzene	98-82-8	0.06 U	0.06	3.9		0.89
06192	p-Isopropyltoluene	99-87-6	0.11 U	0.11	3.9		0.89
06192	Methyl Tertiary Butyl Ether	1634-04-4	0.21 U	0.21	3.9		0.89
06192	4-Methyl-2-pentanone	108-10-1	0.38 U	0.38	7.8		0.89
06192	Methylene Chloride	75-09-2	5.5	0.23	3.9		0.89
06192	n-Propylbenzene	103-65-1	0.07 U	0.07	3.9		0.89

\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-016-SA5C-SB-9.0-10.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-016-SA5C-SB-9.0-10.0

LLI Sample # SW 6162861  
 LLI Group # 1225035  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 16:23

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3307 SDG#: DE033-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS Volatiles SW-846 8260B</b>							
06192	Styrene	100-42-5	0.1 U	0.1	3.9		0.89
06192	1,1,1,2-Tetrachloroethane	630-20-6	0.11 U	0.11	3.9		0.89
06192	1,1,2,2-Tetrachloroethane	79-34-5	0.22 U	0.22	3.9		0.89
06192	Tetrachloroethene	127-18-4	0.20 U	0.20	3.9		0.89
06192	Toluene	108-88-3	0.14 J	0.08	3.9		0.89
06192	1,2,3-Trichlorobenzene	87-61-6	0.14 U	0.14	3.9		0.89
06192	1,2,4-Trichlorobenzene	120-82-1	0.18 U	0.18	3.9		0.89
06192	1,1,1-Trichloroethane	71-55-6	0.20 U	0.20	3.9		0.89
06192	1,1,2-Trichloroethane	79-00-5	0.26 U	0.26	3.9		0.89
06192	Trichloroethene	79-01-6	0.15 U	0.15	3.9		0.89
06192	Trichlorofluoromethane	75-69-4	0.28 U	0.28	3.9		0.89
06192	1,2,3-Trichloropropane	96-18-4	0.32 U	0.32	3.9		0.89
06192	1,2,4-Trimethylbenzene	95-63-6	0.39 U	0.39	3.9		0.89
06192	1,3,5-Trimethylbenzene	108-67-8	0.1 U	0.1	3.9		0.89
06192	Vinyl Chloride	75-01-4	0.20 U	0.20	3.9		0.89
06192	m+p-Xylene	179601-23-1	0.17 U	0.17	3.9		0.89
06192	o-Xylene	95-47-6	0.17 U	0.17	3.9		0.89
<b>GC/MS Volatiles SW-846 8260B SIM</b>							
10326	1,4-Dioxane	123-91-1	4.3 U	4.3	13		19.38
<b>GC/MS Semivolatiles EPA 1625C</b>							
11622	N-Nitrosodimethylamine	62-75-9	39.3	18.3	36.7		1
<b>GC/MS Semivolatiles SW-846 8270C</b>							
04688	Aniline	62-53-3	180	U 180	550		1
04688	Benzidine	92-87-5	1,300	U 1,300	3,700		1
04688	Benzoic acid	65-85-0	180	U 180	550		1
04688	Benzyl alcohol	100-51-6	180	U 180	550		1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180		1
04688	Carbazole	86-74-8	18	U 18	180		1
04688	4-Chloro-3-methylphenol	59-50-7	37	U 37	180		1
04688	4-Chloroaniline	106-47-8	73	U 73	180		1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180		1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180		1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180		1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180		1
04688	2-Chlorophenol	95-57-8	18	U 18	180		1
04688	4-Chlorophenyl-phenylether	7005-72-3	37	U 37	180		1
04688	Dibenzofuran	132-64-9	18	U 18	180		1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180		1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180		1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180		1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	370		1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180		1
04688	2,4-Dimethylphenol	105-67-9	37	U 37	180		1
04688	3,5-Dimethylphenol	108-68-9	37	U 37	180		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	550		1
04688	2,4-Dinitrophenol	51-28-5	730	U 730	2,200		1

\*=This limit was used in the evaluation of the final result

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**Sample Description:** SL-016-SA5C-SB-9.0-10.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-016-SA5C-SB-9.0-10.0

LLI Sample # SW 6162861  
 LLI Group # 1225035  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 16:23

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3307 SDG#: DE033-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04688	2,4-Dinitrotoluene	121-14-2	37	U 37	180		1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180		1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180		1
04688	Hexachlorobenzene	118-74-1	18	U 18	180		1
04688	Hexachlorobutadiene	87-68-3	73	U 73	180		1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	550		1
04688	Hexachloroethane	67-72-1	18	U 18	180		1
04688	Isophorone	78-59-1	18	U 18	180		1
04688	2-Methylphenol	95-48-7	37	U 37	180		1
04688	4-Methylphenol	106-44-5	37	U 37	180		1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.							
04688	2-Nitroaniline	88-74-4	18	U 18	180		1
04688	3-Nitroaniline	99-09-2	37	U 37	180		1
04688	4-Nitroaniline	100-01-6	73	U 73	180		1
04688	Nitrobenzene	98-95-3	18	U 18	180		1
04688	2-Nitrophenol	88-75-5	18	U 18	180		1
04688	4-Nitrophenol	100-02-7	180	U 180	550		1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180		1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180		1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.							
04688	Pentachlorophenol	87-86-5	180	U 180	550		1
04688	Phenol	108-95-2	18	U 18	180		1
04688	1,2,4-Trichlorobenzene	120-82-1	18	U 18	180		1
04688	2,4,5-Trichlorophenol	95-95-4	37	U 37	180		1
04688	2,4,6-Trichlorophenol	88-06-2	37	U 37	180		1

The LCS recovery is outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: bis(2-chloroisopropyl)ether

GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	ug/kg
10138	Acenaphthene	83-32-9	0.73	U 0.73	1.8	1
10138	Acenaphthylene	208-96-8	0.37	U 0.37	1.8	1
10138	Anthracene	120-12-7	0.37	U 0.37	1.8	1
10138	Benzo(a)anthracene	56-55-3	1.4	J 0.73	1.8	1
10138	Benzo(a)pyrene	50-32-8	1.2	J 0.73	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	1.9	U 0.73	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	0.85	J 0.73	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	0.92	J 0.73	1.8	1
10138	Butylbenzylphthalate	85-68-7	8.8	J 6.6	20	1
10138	Di-n-butylphthalate	84-74-2	6.6	U 6.6	20	1
10138	Chrysene	218-01-9	2.0	U 0.37	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.73	U 0.73	1.8	1
10138	Diethylphthalate	84-66-2	6.6	U 6.6	20	1
10138	Dimethylphthalate	131-11-3	6.6	U 6.6	20	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	32	U 6.6	20	1

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**Sample Description:** SL-016-SA5C-SB-9.0-10.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-016-SA5C-SB-9.0-10.0

**LLI Sample #** SW 6162861  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 16:23

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3307 SDG#: DE033-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS Semivolatiles SW-846 8270C SIM</b>							
10138	Fluoranthene	206-44-0	2.4	0.73	1.8		1
10138	Fluorene	86-73-7	0.73 U	0.73	1.8		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.73 U	0.73	1.8		1
10138	1-Methylnaphthalene	90-12-0	0.73 U	0.73	1.8		1
10138	2-Methylnaphthalene	91-57-6	0.73 U	0.73	1.8		1
10138	Naphthalene	91-20-3	0.73 U	0.73	1.8		1
10138	N-Nitrosodimethylamine	62-75-9	0.73 U	0.73	1.8		1
10138	Di-n-octylphthalate	117-84-0	6.6	6.6	20		1
10138	Phenanthrene	85-01-8	0.73 U	0.73	1.8		1
10138	Pyrene	129-00-0	2.3	0.73	1.8		1
Bis(2-ethylhexyl)phthalate was detected in the method blank at a concentration of 6.5 ug/kg. The blank value was not subtracted from the analytical result.							
<b>GC Volatiles TPH GRO SW-846 8015B mod</b>							
05551	9a TPH by EPA 8015B Gas C5-C12	n.a.	0.2 U	0.2	0.9		19.65
<b>Explosives SW-846 8330A</b>							
10132	4-Amino-2,6-Dinitrotoluene	19406-51-0	83	U 83	170	1000000	1
10132	2-Amino-4,6-Dinitrotoluene	35572-78-2	55	U 55	170	1000000	1
10132	2,6-Diamino-4-nitrotoluene	59229-75-3	110	U 110	330	1000000	1
10132	2,4-Diamino-6-nitrotoluene	6629-29-4	110	U 110	330	1000000	1
10132	1,3-Dinitrobenzene	99-65-0	55	U 55	170	1000000	1
10132	2,4-Dinitrotoluene	121-14-2	55	U 55	170	1000000	1
10132	2,6-Dinitrotoluene	606-20-2	55	U 55	170	1000000	1
10132	HMX	2691-41-0	140	U 140	410	1000000	1
10132	Nitrobenzene	98-95-3	55	U 55	170	1000000	1
10132	Nitroglycerin	55-63-0	1,100	U 1,100	3,300	1000000	1
10132	2-Nitrotoluene	88-72-2	110	U 110	170	1000000	1
10132	3-Nitrotoluene	99-08-1	140	U 140	170	1000000	1
10132	4-Nitrotoluene	99-99-0	110	U 110	170	1000000	1
10132	PETN	78-11-5	1,100	U 1,100	3,300	1000000	1
10132	RDX	121-82-4	69	U 69	170	1000000	1

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CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Explosives</b>							
		<b>SW-846 8330A</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10132	Tetryl	479-45-8	84	U 84	170	1000000	1
10132	1,3,5-Trinitrobenzene	99-35-4	55	U 55	170	1000000	1
10132	2,4,6-Trinitrotoluene	118-96-7	55	U 55	170	1000000	1
<b>HPLC Organics</b>							
		<b>SW-846 8315A</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04173	17a Formaldehyde by 8315A	50-00-0	2,900	660	1,700		1
<b>Perchlorate</b>							
		<b>SW-846 6850 1/2007</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
06557	6a Perchlorate EPA 6850	14797-73-0	2.3	U 2.3	5.5		1
<b>Pesticides/PCBs</b>							
		<b>SW-846 8082</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10225	Aroclor 5432	63496-31-1	1.1	U 1.1	3.6		1
10225	Aroclor 5442	12642-23-8	1.1	U 1.1	3.6		1
10225	Aroclor 5460	11126-42-4	1.1	U 1.1	3.6		1
10225	PCB-1016	12674-11-2	0.36	U 0.36	1.9		1
10225	PCB-1221	11104-28-2	0.55	U 0.55	1.9		1
10225	PCB-1232	11141-16-5	0.57	U 0.57	1.9		1
10225	PCB-1242	53469-21-9	0.55	U 0.55	1.9		1
10225	PCB-1248	12672-29-6	2.3	U 0.36	1.9		1
10225	PCB-1254	11097-69-1	1.6	J 0.36	1.9		1
10225	PCB-1260	11096-82-5	0.62	J 0.36	1.9		1
10225	PCB-1262	37324-23-5	0.36	U 0.36	1.9		1
10225	PCB-1268	11100-14-4	0.36	U 0.36	1.9		1
The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.							
<b>GC Extractable TPH</b>							
		<b>SW-846 8015B modified</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
10199	EFH (C12-C14)	n.a.	2.2	U 2.2	6.6		5
10199	EFH (C15-C20)	n.a.	5.8	J 2.2	6.6		5
10199	EFH (C21-C30)	n.a.	24	2.2	6.6		5
10199	EFH (C30 - C40)	n.a.	61	2.2	6.6		5
10199	EFH (C8-C11)	n.a.	2.2	U 2.2	6.6		5
<b>GC Miscellaneous</b>							
		<b>SW-846 8015B</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10501	Ethanol	64-17-5	110	U 110	550		1
10501	Isopropanol	67-63-0	110	U 110	550		1
10501	Methanol	67-56-1	110	U 110	550		1
<b>GC Miscellaneous</b>							
		<b>SW-846 8015B modified</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
08283	Diethylene glycol	111-46-6	5.5	U 5.5	14		1
08283	Ethylene glycol	107-21-1	5.5	U 5.5	14		1
08283	Propylene glycol	57-55-6	5.5	U 5.5	14		1

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 SSFL Area IV Collocated Soil Sampling  
 SL-016-SA5C-SB-9.0-10.0

**LLI Sample #** SW 6162861  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

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E3307 SDG#: DE033-07

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Terphenyls</b>			<b>mg/kg</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
10318	m-Terphenyl	92-06-8	1.7	U	1.7	3.9		1
10318	o-Terphenyl	84-15-1	1.7	U	1.7	3.9		1
10318	p-Terphenyl	92-94-4	1.7	U	1.7	3.9		1
<b>Metals</b>			<b>mg/kg</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
01643	Aluminum	7429-90-5	14,700		5.27	21.0		1
07914	Boron	7440-42-8	2.91	J	0.932	5.24		1
01650	Calcium	7440-70-2	4,230		6.42	21.0		1
01654	Iron	7439-89-6	18,700		4.93	21.0		1
01656	Lithium	7439-93-2	18.3		0.23	2.1		1
01657	Magnesium	7439-95-4	3,810		2.66	10.5		1
06958	Manganese	7439-96-5	611		0.0817	0.524		1
10145	Phosphorus	7723-14-0	299		0.587	10.5		1
01662	Potassium	7440-09-7	2,560		18.9	52.4		1
01667	Sodium	7440-23-5	166		39.1	105		1
07968	Strontium	7440-24-6	22.3		0.0650	0.524		1
06969	Tin	7440-31-5	2.34	J	1.05	10.5		1
06970	Titanium	7440-32-6	1,150		0.828	2.18		2
10146	Zirconium	7440-67-7	1.78	J	0.880	5.24		1
<b>SW-846 6020</b>			<b>mg/kg</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
06124	Antimony	7440-36-0	0.0952	J	0.0647	0.216		2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.								
06125	Arsenic	7440-38-2	7.33		0.0647	0.431		2
06126	Barium	7440-39-3	110		0.116	0.431		2
06127	Beryllium	7440-41-7	0.577		0.0173	0.108		2
06128	Cadmium	7440-43-9	0.198		0.0388	0.108		2
06131	Chromium	7440-47-3	24.3		0.129	0.431		2
06132	Cobalt	7440-48-4	6.83		0.0216	0.108		2
06133	Copper	7440-50-8	10.9		0.0712	0.431		2
06135	Lead	7439-92-1	7.77		0.0112	0.216		2
06138	Molybdenum	7439-98-7	0.863		0.0539	0.108		2
06139	Nickel	7440-02-0	12.8		0.108	0.431		2
06141	Selenium	7782-49-2	0.170	J	0.0431	0.431		2
06142	Silver	7440-22-4	0.0334	J	0.0129	0.108		2
06145	Thallium	7440-28-0	0.364		0.0324	0.108		2
06148	Vanadium	7440-62-2	44.2		0.0237	0.108		2
06149	Zinc	7440-66-6	84.4		0.604	3.24		2
<b>SW-846 7471A</b>			<b>mg/kg</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
00159	Mercury	7439-97-6	0.0029	U	0.0029	0.103		1
<b>Wet Chemistry</b>			<b>mg/kg</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	5.1		0.88	1.1		1
07336	11a Anions by 300.0 - Nitrate	14797-55-8	1.9		0.88	1.7		1

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# Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

**Sample Description:** SL-016-SA5C-SB-9.0-10.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-016-SA5C-SB-9.0-10.0

**LLI Sample #** SW 6162861  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

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Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3307 SDG#: DE033-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Wet Chemistry EPA 314.0</b>							
10147	7a Perchlorate EPA 314.0	14797-73-0	12.2 J	9.9	33.0	ug/kg	1
<b>SW-846 7199</b>							
05892	3a Cr VI by EPA 7199	18540-29-9	0.22 U	0.22	1.1	mg/kg	1
<b>SW-846 9012B</b>							
05895	21a Cyanide by 9012B	57-12-5	0.18 U	0.18	0.51	mg/kg	1
<b>ASTM D1498</b>							
01821	Oxidation Reduction Potential	n.a.	467	10.0	10.0	mV	1
The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.							
<b>SW-846 9045C modified</b>							
00394	22a pH by 9045C	n.a.	8.20	0.0100	0.0100	Std. Units	1
<b>Wet Chemistry EPA 160.3 modified</b>							
11624	28a Moisture Content by 160.3	n.a.	9.1	0.50	0.50	%	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.							

### General Sample Comments

State of California Lab Certification No. 2501  
 The volatile analysis was performed on soil from SL-016-SA5C-SB-9.5.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06192	1a Volatile Organics EPA 8260B	SW-846 8260B	1	B103481AA	12/14/2010 14:14	Nicholas R Rossi	0.89
10326	14a 1,4-Dioxane by 8260B SIM	SW-846 8260B SIM	1	E103492AA	12/15/2010 17:16	Jason M Long	19.38
08390	GC/MS - HL Encore Prep	SW-846 5035	1	201034723285	12/10/2010 12:32	Stephanie A Sanchez	n.a.
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035	1	201034723283	12/10/2010 12:31	Stephanie A Sanchez	n.a.
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035	2	201034723283	12/10/2010 12:31	Stephanie A Sanchez	n.a.

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**SSFL Area IV Collocated Soil Sampling**  
**SL-016-SA5C-SB-9.0-10.0**

**LLI Sample # SW 6162861**  
**LLI Group # 1225035**  
**Account # 13013**

**Project Name: SSFL Area IV Collocated Soil Sampling**

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Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3307 SDG#: DE033-07

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07578	GC/MS-HL Encore Prep-NC	SW-846 5035	1	201034723285	12/10/2010 12:32	Stephanie A Sanchez	n.a.
11622	19a NDMA by 1625C	EPA 1625C	1	10350SLF026	12/24/2010 23:07	Timothy J Trees	1
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10348SLG026	12/22/2010 12:25	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10349SLF026	12/21/2010 09:03	Mark A Clark	1
11630	NDMA Soil Microwave	SW-846 3546	1	10350SLF026	12/17/2010 01:00	Sherry L Morrow	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10349SLF026	12/16/2010 07:00	Joseph S Feister	1
00381	BNA Soil Sonication	SW-846 3550B	1	10348SLG026	12/15/2010 07:05	Joseph S Feister	1
05551	9a TPH by EPA 8015B Gas C5-C12	TPH GRO SW-846 8015B mod	1	10348A34A	12/15/2010 02:12	Marie D John	19.65
06130	GC - 5 g HL Encore Prep	SW-846 5035	1	201034723285	12/10/2010 12:32	Stephanie A Sanchez	n.a.
10132	20a Energetics by 8330A	SW-846 8330A	1	103510022A	12/21/2010 06:06	Michele D Hamilton	1
04173	17a Formaldehyde by 8315A	SW-846 8315A	1	103480008A	12/17/2010 18:11	Michele D Hamilton	1
06557	6a Perchlorate EPA 6850	SW-846 6850 1/2007	1	103490017A	12/17/2010 15:41	Richard A Shober	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	103490013A	12/19/2010 09:15	Lindsey K Lafferty	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	103490013A	12/15/2010 21:05	Karen L Beyer	1
06568	Perchlorate Soil Prep	SW-846 6850 1/2007	1	103490017A	12/16/2010 09:10	Maria Davenport	1
05876	Formaldehyde Solid Extraction	SW-846 8315A	1	103480008A	12/14/2010 15:00	Kelli M Barto	1
11137	Energetics Extraction	SW-846 8330	1	103510022A	12/19/2010 17:00	Wanda F Oswald	1
10199	9a TPH by EPA 8015B Oil/Diesel	SW-846 8015B modified	1	103490010A	12/21/2010 11:44	Heather E Williams	5
10501	25a Alcohols by 8015B	SW-846 8015B	1	103480002A	12/14/2010 20:11	Dustin A Underkoffler	1
08283	27a Glycols by 8015B	SW-846 8015B modified	1	103480018A	12/14/2010 23:11	Robert Brown	1
10318	26a Terphenyls by 8015B	SW-846 8015B	1	103500031A	12/18/2010 02:47	Heather E Williams	1
11238	EFH Extraction - Soils	SW-846 3550B	1	103490010A	12/15/2010 19:30	Sally L Appleyard	1
10303	Terphenyls soil prep	SW-846 3550B	1	103500031A	12/17/2010 07:00	Kerrie A Freeburn	1
11551	Direct Inj. Solids Glycol Ext.	SW-846 8015B	1	103480018A	12/14/2010 13:00	Dustin A Underkoffler	1
00380	Direct Injection Solids Ext	SW-846 8015B	1	103480002A	12/14/2010 13:00	Dustin A Underkoffler	1
01643	Aluminum	SW-846 6010B	1	103495708002	12/16/2010 17:20	Eric L Eby	1
07914	Boron	SW-846 6010B	1	103495708002	12/16/2010 05:20	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	103495708002	12/16/2010 05:20	Tara L Snyder	1
01654	Iron	SW-846 6010B	1	103495708002	12/16/2010 05:20	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	103495708002	12/16/2010 05:20	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	103495708002	12/16/2010 05:20	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	103495708002	12/16/2010 05:20	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	103495708002	12/16/2010 05:20	Tara L Snyder	1

\*=This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-016-SA5C-SB-9.0-10.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-016-SA5C-SB-9.0-10.0

**LLI Sample #** SW 6162861  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 16:23

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3307 SDG#: DE033-07

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01662	Potassium	SW-846 6010B	1	103495708002	12/16/2010 05:20	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	103495708002	12/16/2010 05:20	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	103495708002	12/16/2010 05:20	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	103495708002	12/16/2010 05:20	Tara L Snyder	1
06970	Titanium	SW-846 6010B	1	103505708003	12/20/2010 17:15	John P Hook	2
10146	Zirconium	SW-846 6010B	1	103495708002	12/16/2010 05:20	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	103491026002A	12/17/2010 15:41	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103491026002A	12/17/2010 15:41	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103491026002D	12/17/2010 15:41	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103491026002A	12/17/2010 15:41	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103491026002A	12/17/2010 15:41	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103491026002A	12/17/2010 15:41	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103491026002A	12/17/2010 15:41	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103491026002A	12/17/2010 15:41	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103491026002A	12/17/2010 15:41	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103491026002C	12/17/2010 15:41	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103491026002A	12/17/2010 15:41	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103491026002B	12/17/2010 15:41	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103491026002A	12/17/2010 15:41	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103491026002A	12/17/2010 15:41	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103491026002A	12/17/2010 15:41	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	103491026002A	12/17/2010 15:41	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	103495711002	12/15/2010 19:51	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	103495708002	12/15/2010 10:35	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	103505708003	12/17/2010 19:17	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103491026002	12/15/2010 11:08	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	103495711002	12/15/2010 12:17	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10352352201A	12/20/2010 16:32	Ashley M Adams	1
07336	11a Anions by 300.0 - Nitrate	EPA 300.0	1	10352352201A	12/20/2010 16:32	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10354354201B	12/22/2010 01:22	Venia B McFadden	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	10356243201A	12/28/2010 19:35	Ashley M Adams	1
05895	21a Cyanide by 9012B	SW-846 9012B	1	10355102202A	12/21/2010 20:22	Joseph E McKenzie	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10352352201A	12/19/2010 16:30	Joseph E McKenzie	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10354354201B	12/20/2010 19:00	Carolyn M Mastropietro	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	10355102202A	12/21/2010 15:35	Carolyn M Mastropietro	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10348182101B	12/14/2010 09:00	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10348039401B	12/14/2010 09:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10356243201A	12/22/2010 20:10	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	1	10364162401A	12/31/2010 05:52	William C Schwebel	1

\*—This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-021-SA5C-SB-4.0-5.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-021-SA5C-SB-4.0-5.0

LLI Sample # SW 6162862  
 LLI Group # 1225035  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 11:55

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3308 SDG#: DE033-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
06192	Acetone	67-64-1	9.9	5.9	7.1		0.83
06192	Benzene	71-43-2	0.09 U	0.09	3.5		0.83
06192	Bromobenzene	108-86-1	0.12 U	0.12	3.5		0.83
06192	Bromochloromethane	74-97-5	0.29 U	0.29	3.5		0.83
06192	Bromodichloromethane	75-27-4	0.07 U	0.07	3.5		0.83
06192	Bromoform	75-25-2	0.35 U	0.35	3.5		0.83
06192	Bromomethane	74-83-9	0.22 U	0.22	3.5		0.83
06192	2-Butanone	78-93-3	1.1 U	1.1	7.1		0.83
06192	n-Butylbenzene	104-51-8	0.11 U	0.11	3.5		0.83
06192	sec-Butylbenzene	135-98-8	0.05 U	0.05	3.5		0.83
06192	tert-Butylbenzene	98-06-6	0.14 U	0.14	3.5		0.83
06192	Carbon Tetrachloride	56-23-5	0.12 U	0.12	3.5		0.83
06192	Chlorobenzene	108-90-7	0.1 U	0.1	3.5		0.83
06192	Chloroethane	75-00-3	0.12 U	0.12	3.5		0.83
06192	2-Chloroethyl Vinyl Ether	110-75-8	0.27 U	0.27	3.5		0.83
06192	Chloroform	67-66-3	0.11 J	0.11	3.5		0.83
06192	Chloromethane	74-87-3	0.29 U	0.29	3.5		0.83
06192	2-Chlorotoluene	95-49-8	0.12 U	0.12	3.5		0.83
06192	4-Chlorotoluene	106-43-4	0.12 U	0.12	3.5		0.83
06192	Chlorotrifluoroethene	79-38-9	0.44 U	0.44	4.4		0.83
06192	1,2-Dibromo-3-chloropropane	96-12-8	0.62 U	0.62	3.5		0.83
06192	Dibromochloromethane	124-48-1	0.18 U	0.18	3.5		0.83
06192	1,2-Dibromoethane	106-93-4	0.15 U	0.15	3.5		0.83
06192	Dibromomethane	74-95-3	0.21 U	0.21	3.5		0.83
06192	1,2-Dichlorobenzene	95-50-1	0.08 U	0.08	3.5		0.83
06192	1,3-Dichlorobenzene	541-73-1	0.11 U	0.11	3.5		0.83
06192	1,4-Dichlorobenzene	106-46-7	0.14 U	0.14	3.5		0.83
06192	Dichlorodifluoromethane	75-71-8	0.11 U	0.11	3.5		0.83
06192	1,1-Dichloroethane	75-34-3	0.09 U	0.09	3.5		0.83
06192	1,2-Dichloroethane	107-06-2	0.13 U	0.13	3.5		0.83
06192	1,1-Dichloroethene	75-35-4	0.35 U	0.35	3.5		0.83
06192	cis-1,2-Dichloroethene	156-59-2	0.17 U	0.17	3.5		0.83
06192	trans-1,2-Dichloroethene	156-60-5	0.11 U	0.11	3.5		0.83
06192	1,2-Dichloropropane	78-87-5	0.15 U	0.15	3.5		0.83
06192	1,3-Dichloropropane	142-28-9	0.07 U	0.07	3.5		0.83
06192	2,2-Dichloropropane	594-20-7	0.15 U	0.15	3.5		0.83
06192	1,1-Dichloropropene	563-58-6	0.12 U	0.12	3.5		0.83
06192	cis-1,3-Dichloropropene	10061-01-5	0.14 U	0.14	3.5		0.83
06192	trans-1,3-Dichloropropene	10061-02-6	0.15 U	0.15	3.5		0.83
06192	Ethylbenzene	100-41-4	0.05 U	0.05	3.5		0.83
06192	Freon 113	76-13-1	0.1 U	0.1	3.5		0.83
06192	Freon 133a	75-88-7	0.44 U	0.44	4.4		0.83
06192	Hexachlorobutadiene	87-68-3	0.12 U	0.12	3.5		0.83
06192	2-Hexanone	591-78-6	1.4 U	1.4	7.1		0.83
06192	Isopropylbenzene	98-82-8	0.05 U	0.05	3.5		0.83
06192	p-Isopropyltoluene	99-87-6	0.1 U	0.1	3.5		0.83
06192	Methyl Tertiary Butyl Ether	1634-04-4	0.19 U	0.19	3.5		0.83
06192	4-Methyl-2-pentanone	108-10-1	0.35 U	0.35	7.1		0.83
06192	Methylene Chloride	75-09-2	4.5	0.21	3.5		0.83
06192	n-Propylbenzene	103-65-1	0.06 U	0.06	3.5		0.83

\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-021-SA5C-SB-4.0-5.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-021-SA5C-SB-4.0-5.0

**LLI Sample #** SW 6162862  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 11:55

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3308 SDG#: DE033-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS Volatiles SW-846 8260B</b>							
06192	Styrene	100-42-5	0.09 U	0.09	3.5		0.83
06192	1,1,1,2-Tetrachloroethane	630-20-6	0.1 U	0.1	3.5		0.83
06192	1,1,2,2-Tetrachloroethane	79-34-5	0.20 U	0.20	3.5		0.83
06192	Tetrachloroethene	127-18-4	0.18 U	0.18	3.5		0.83
06192	Toluene	108-88-3	0.1 J	0.07	3.5		0.83
06192	1,2,3-Trichlorobenzene	87-61-6	0.12 U	0.12	3.5		0.83
06192	1,2,4-Trichlorobenzene	120-82-1	0.16 U	0.16	3.5		0.83
06192	1,1,1-Trichloroethane	71-55-6	0.18 U	0.18	3.5		0.83
06192	1,1,2-Trichloroethane	79-00-5	0.24 U	0.24	3.5		0.83
06192	Trichloroethene	79-01-6	0.13 U	0.13	3.5		0.83
06192	Trichlorofluoromethane	75-69-4	0.26 U	0.26	3.5		0.83
06192	1,2,3-Trichloropropane	96-18-4	0.29 U	0.29	3.5		0.83
06192	1,2,4-Trimethylbenzene	95-63-6	0.35 U	0.35	3.5		0.83
06192	1,3,5-Trimethylbenzene	108-67-8	0.09 U	0.09	3.5		0.83
06192	Vinyl Chloride	75-01-4	0.18 U	0.18	3.5		0.83
06192	m+p-Xylene	179601-23-1	0.15 U	0.15	3.5		0.83
06192	o-Xylene	95-47-6	0.15 U	0.15	3.5		0.83
<b>GC/MS Volatiles SW-846 8260B SIM</b>							
10326	1,4-Dioxane	123-91-1	4.4 U	4.4	13		20.49
<b>GC/MS Semivolatiles EPA 1625C</b>							
11622	N-Nitrosodimethylamine	62-75-9	22.9 J	17.8	35.6		1
<b>GC/MS Semivolatiles SW-846 8270C</b>							
04688	Aniline	62-53-3	180	U 180	530		1
04688	Benzidine	92-87-5	1,200	U 1,200	3,600		1
04688	Benzoic acid	65-85-0	180	U 180	530		1
04688	Benzyl alcohol	100-51-6	180	U 180	530		1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180		1
04688	Carbazole	86-74-8	18	U 18	180		1
04688	4-Chloro-3-methylphenol	59-50-7	36	U 36	180		1
04688	4-Chloroaniline	106-47-8	71	U 71	180		1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180		1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180		1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180		1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180		1
04688	2-Chlorophenol	95-57-8	18	U 18	180		1
04688	4-Chlorophenyl-phenylether	7005-72-3	36	U 36	180		1
04688	Dibenzofuran	132-64-9	18	U 18	180		1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180		1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180		1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180		1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	360		1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180		1
04688	2,4-Dimethylphenol	105-67-9	36	U 36	180		1
04688	3,5-Dimethylphenol	108-68-9	36	U 36	180		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	530		1
04688	2,4-Dinitrophenol	51-28-5	710	U 710	2,100		1

\*=This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-021-SA5C-SB-4.0-5.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-021-SA5C-SB-4.0-5.0

**LLI Sample #** SW 6162862  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 11:55

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3308 SDG#: DE033-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04688	2,4-Dinitrotoluene	121-14-2	36	U 36	180		1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180		1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180		1
04688	Hexachlorobenzene	118-74-1	18	U 18	180		1
04688	Hexachlorobutadiene	87-68-3	71	U 71	180		1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	530		1
04688	Hexachloroethane	67-72-1	18	U 18	180		1
04688	Isophorone	78-59-1	18	U 18	180		1
04688	2-Methylphenol	95-48-7	36	U 36	180		1
04688	4-Methylphenol	106-44-5	36	U 36	180		1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.							
04688	2-Nitroaniline	88-74-4	18	U 18	180		1
04688	3-Nitroaniline	99-09-2	36	U 36	180		1
04688	4-Nitroaniline	100-01-6	71	U 71	180		1
04688	Nitrobenzene	98-95-3	18	U 18	180		1
04688	2-Nitrophenol	88-75-5	18	U 18	180		1
04688	4-Nitrophenol	100-02-7	180	U 180	530		1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180		1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180		1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.							
04688	Pentachlorophenol	87-86-5	180	U 180	530		1
04688	Phenol	108-95-2	18	U 18	180		1
04688	1,2,4-Trichlorobenzene	120-82-1	18	U 18	180		1
04688	2,4,5-Trichlorophenol	95-95-4	36	U 36	180		1
04688	2,4,6-Trichlorophenol	88-06-2	36	U 36	180		1

The LCS recovery is outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: bis(2-chloroisopropyl)ether

GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	ug/kg
10138	Acenaphthene	83-32-9	0.71	U 0.71	1.8	1
10138	Acenaphthylene	208-96-8	0.36	U 0.36	1.8	1
10138	Anthracene	120-12-7	0.36	U 0.36	1.8	1
10138	Benzo(a)anthracene	56-55-3	1.4	J 0.71	1.8	1
10138	Benzo(a)pyrene	50-32-8	1.4	J 0.71	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	2.9	U 0.71	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	1.0	J 0.71	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	1.0	J 0.71	1.8	1
10138	Butylbenzylphthalate	85-68-7	11	J 6.4	19	1
10138	Di-n-butylphthalate	84-74-2	9.2	J 6.4	19	1
10138	Chrysene	218-01-9	2.3	U 0.36	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.71	U 0.71	1.8	1
10138	Diethylphthalate	84-66-2	6.4	U 6.4	19	1
10138	Dimethylphthalate	131-11-3	6.4	U 6.4	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	72	U 6.4	19	1

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**Sample Description:** SL-021-SA5C-SB-4.0-5.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-021-SA5C-SB-4.0-5.0

**LLI Sample #** SW 6162862  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 11:55

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3308 SDG#: DE033-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS Semivolatiles SW-846 8270C SIM</b>							
10138	Fluoranthene	206-44-0	3.6	0.71	1.8		1
10138	Fluorene	86-73-7	0.71 U	0.71	1.8		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.85	0.71	1.8		1
10138	1-Methylnaphthalene	90-12-0	0.71 U	0.71	1.8		1
10138	2-Methylnaphthalene	91-57-6	0.71 U	0.71	1.8		1
10138	Naphthalene	91-20-3	0.71 U	0.71	1.8		1
10138	N-Nitrosodimethylamine	62-75-9	0.71 U	0.71	1.8		1
10138	Di-n-octylphthalate	117-84-0	6.4	6.4	19		1
10138	Phenanthrene	85-01-8	1.2 J	0.71	1.8		1
10138	Pyrene	129-00-0	2.9	0.71	1.8		1
Bis(2-ethylhexyl)phthalate was detected in the method blank at a concentration of 6.5 ug/kg. The blank value was not subtracted from the analytical result.							
<b>GC Volatiles TPH GRO SW-846 8015B mod</b>							
05551	9a TPH by EPA 8015B Gas C5-C12	n.a.	0.2 U	0.2	0.9		20.56
<b>Explosives SW-846 8330A</b>							
10132	4-Amino-2,6-Dinitrotoluene	19406-51-0	80	U 80	160	1000000	1
10132	2-Amino-4,6-Dinitrotoluene	35572-78-2	53	U 53	160	1000000	1
10132	2,6-Diamino-4-nitrotoluene	59229-75-3	110	U 110	320	1000000	1
10132	2,4-Diamino-6-nitrotoluene	6629-29-4	110	U 110	320	1000000	1
10132	1,3-Dinitrobenzene	99-65-0	53	U 53	160	1000000	1
10132	2,4-Dinitrotoluene	121-14-2	53	U 53	160	1000000	1
10132	2,6-Dinitrotoluene	606-20-2	53	U 53	160	1000000	1
10132	HMX	2691-41-0	130	U 130	400	1000000	1
10132	Nitrobenzene	98-95-3	53	U 53	160	1000000	1
10132	Nitroglycerin	55-63-0	1,100	U 1,100	3,200	1000000	1
10132	2-Nitrotoluene	88-72-2	110	U 110	160	1000000	1
10132	3-Nitrotoluene	99-08-1	130	U 130	160	1000000	1
10132	4-Nitrotoluene	99-99-0	110	U 110	160	1000000	1
10132	PETN	78-11-5	1,100	U 1,100	3,200	1000000	1
10132	RDX	121-82-4	67	U 67	160	1000000	1

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 SSFL Area IV Collocated Soil Sampling  
 SL-021-SA5C-SB-4.0-5.0

**LLI Sample #** SW 6162862  
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E3308 SDG#: DE033-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Explosives</b>							
		<b>SW-846 8330A</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10132	Tetryl	479-45-8	82	U 82	160	1000000 0	1
10132	1,3,5-Trinitrobenzene	99-35-4	53	U 53	160	1000000 0	1
10132	2,4,6-Trinitrotoluene	118-96-7	53	U 53	160	1000000 0	1
<b>HPLC Organics</b>							
		<b>SW-846 8315A</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04173	17a Formaldehyde by 8315A	50-00-0	640	U 640	1,600		1
<b>Perchlorate</b>							
		<b>SW-846 6850 1/2007</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
06557	6a Perchlorate EPA 6850	14797-73-0	2.2	U 2.2	5.3		1
<b>Pesticides/PCBs</b>							
		<b>SW-846 8082</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10225	Aroclor 5432	63496-31-1	1.1	U 1.1	3.5		1
10225	Aroclor 5442	12642-23-8	1.1	U 1.1	3.5		1
10225	Aroclor 5460	11126-42-4	1.1	U 1.1	3.5		1
10225	PCB-1016	12674-11-2	0.35	U 0.35	1.8		1
10225	PCB-1221	11104-28-2	0.53	U 0.53	1.8		1
10225	PCB-1232	11141-16-5	0.56	U 0.56	1.8		1
10225	PCB-1242	53469-21-9	0.53	U 0.53	1.8		1
10225	PCB-1248	12672-29-6	0.35	U 0.35	1.8		1
10225	PCB-1254	11097-69-1	0.87	J 0.35	1.8		1
10225	PCB-1260	11096-82-5	0.79	J 0.35	1.8		1
10225	PCB-1262	37324-23-5	0.35	U 0.35	1.8		1
10225	PCB-1268	11100-14-4	0.35	U 0.35	1.8		1
The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.							
<b>GC Extractable TPH</b>							
		<b>SW-846 8015B modified</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
10199	EFH (C12-C14)	n.a.	0.43	U 0.43	1.3		1
10199	EFH (C15-C20)	n.a.	0.48	J 0.43	1.3		1
10199	EFH (C21-C30)	n.a.	11	0.43	1.3		1
10199	EFH (C30 - C40)	n.a.	28	0.43	1.3		1
10199	EFH (C8-C11)	n.a.	0.43	U 0.43	1.3		1
<b>GC Miscellaneous</b>							
		<b>SW-846 8015B</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10501	Ethanol	64-17-5	110	U 110	530		1
10501	Isopropanol	67-63-0	110	U 110	530		1
10501	Methanol	67-56-1	110	U 110	530		1
<b>GC Miscellaneous</b>							
		<b>SW-846 8015B modified</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
08283	Diethylene glycol	111-46-6	5.3	U 5.3	13		1
08283	Ethylene glycol	107-21-1	5.3	U 5.3	13		1
08283	Propylene glycol	57-55-6	5.3	U 5.3	13		1

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**Sample Description:** SL-021-SA5C-SB-4.0-5.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-021-SA5C-SB-4.0-5.0

LLI Sample # SW 6162862  
 LLI Group # 1225035  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 11:55

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3308 SDG#: DE033-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
The sample was injected numerous times. Each time the responses for various analytes in the calibration check standard injected after the sample were outside the acceptance criteria. Therefore, this effect is attributed to the sample matrix and the data is reported.							
<b>Terphenyls</b>		<b>SW-846 8015B</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
10318	m-Terphenyl	92-06-8	1.6 U	1.6	3.7		1
10318	o-Terphenyl	84-15-1	1.6 U	1.6	3.7		1
10318	p-Terphenyl	92-94-4	1.6 U	1.6	3.7		1
<b>Metals</b>		<b>SW-846 6010B</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
01643	Aluminum	7429-90-5	9,670	5.22	20.7		1
07914	Boron	7440-42-8	2.16 J	0.923	5.19		1
01650	Calcium	7440-70-2	5,430	6.36	20.7		1
01654	Iron	7439-89-6	15,400	4.89	20.7		1
01656	Lithium	7439-93-2	15.2	0.23	2.1		1
01657	Magnesium	7439-95-4	3,470	2.63	10.4		1
06958	Manganese	7439-96-5	204	0.0809	0.519		1
10145	Phosphorus	7723-14-0	365	0.581	10.4		1
01662	Potassium	7440-09-7	2,480	18.7	51.9		1
01667	Sodium	7440-23-5	134	38.7	104		1
07968	Strontium	7440-24-6	18.5	0.0643	0.519		1
06969	Tin	7440-31-5	1.68 J	1.04	10.4		1
06970	Titanium	7440-32-6	1,170	0.788	2.07		2
10146	Zirconium	7440-67-7	1.05 J	0.871	5.19		1
		<b>SW-846 6020</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
06124	Antimony	7440-36-0	0.0622 U	0.0622	0.207		2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.							
06125	Arsenic	7440-38-2	5.77	0.0622	0.415		2
06126	Barium	7440-39-3	120	0.112	0.415		2
06127	Beryllium	7440-41-7	0.484	0.0166	0.104		2
06128	Cadmium	7440-43-9	0.142	0.0373	0.104		2
06131	Chromium	7440-47-3	19.9	0.124	0.415		2
06132	Cobalt	7440-48-4	6.95	0.0207	0.104		2
06133	Copper	7440-50-8	12.8	0.0685	0.415		2
06135	Lead	7439-92-1	6.77	0.0108	0.207		2
06138	Molybdenum	7439-98-7	0.555	0.0519	0.104		2
06139	Nickel	7440-02-0	11.0	0.104	0.415		2
06141	Selenium	7782-49-2	0.116 J	0.0415	0.415		2
06142	Silver	7440-22-4	0.0297 J	0.0124	0.104		2
06145	Thallium	7440-28-0	0.340	0.0311	0.104		2
06148	Vanadium	7440-62-2	44.4	0.0228	0.104		2
06149	Zinc	7440-66-6	80.9	0.581	3.11		2
		<b>SW-846 7471A</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
00159	Mercury	7439-97-6	0.0073 J	0.0029	0.0998		1

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**Sample Description:** SL-021-SA5C-SB-4.0-5.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-021-SA5C-SB-4.0-5.0

LLI Sample # SW 6162862  
 LLI Group # 1225035  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 11:55

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3308 SDG#: DE033-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Wet Chemistry</b>		<b>EPA 300.0</b>	mg/kg	mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.7	0.85	1.1		1
07336	11a Anions by 300.0 - Nitrate	14797-55-8	1.6 J	0.85	1.6		1
		<b>EPA 314.0</b>	ug/kg	ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.6 U	9.6	32.1		1
		<b>SW-846 7199</b>	mg/kg	mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.21 U	0.21	1.1		1
		<b>SW-846 9012B</b>	mg/kg	mg/kg	mg/kg	mg/kg	
05895	21a Cyanide by 9012B	57-12-5	0.19 U	0.19	0.52		1
		<b>ASTM D1498</b>	mV	mV	mV	mV	
01821	Oxidation Reduction Potential	n.a.	449	10.0	10.0		1
The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.							
		<b>SW-846 9045C modified</b>	Std. Units	Std. Units	Std. Units	Std. Units	
00394	22a pH by 9045C	n.a.	8.66	0.0100	0.0100		1
<b>Wet Chemistry</b>		<b>EPA 160.3 modified</b>	%	%	%	%	
11624	28a Moisture Content by 160.3	n.a.	6.4	0.50	0.50		1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.							

### General Sample Comments

State of California Lab Certification No. 2501  
 The volatile analysis was performed on soil from SL-021-SA5C-SB-4.5.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06192	1a Volatile Organics EPA 8260B	SW-846 8260B	1	B103481AA	12/14/2010 19:46	Nicholas R Rossi	0.83
10326	14a 1,4-Dioxane by 8260B SIM	SW-846 8260B SIM	1	E103492AA	12/15/2010 17:36	Jason M Long	20.49
08390	GC/MS - HL Encore Prep	SW-846 5035	1	201034723285	12/10/2010 12:36	Stephanie A Sanchez	n.a.

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**Sample Description: SL-021-SA5C-SB-4.0-5.0 Soil**  
**SSFL Area IV Collocated Soil Sampling**  
**SL-021-SA5C-SB-4.0-5.0**

**LLI Sample # SW 6162862**  
**LLI Group # 1225035**  
**Account # 13013**

**Project Name: SSFL Area IV Collocated Soil Sampling**

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E3308 SDG#: DE033-08

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035	1	201034723283	12/10/2010 12:38	Stephanie A Sanchez	n.a.
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035	2	201034723283	12/10/2010 12:38	Stephanie A Sanchez	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035	1	201034723285	12/10/2010 12:36	Stephanie A Sanchez	n.a.
11622	19a NDMA by 1625C	EPA 1625C	1	10350SLF026	12/24/2010 23:24	Timothy J Trees	1
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10348SLG026	12/22/2010 12:52	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10349SLF026	12/21/2010 09:37	Mark A Clark	1
11630	NDMA Soil Microwave	SW-846 3546	1	10350SLF026	12/17/2010 01:00	Sherry L Morrow	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10349SLF026	12/16/2010 07:00	Joseph S Feister	1
00381	BNA Soil Sonication	SW-846 3550B	1	10348SLG026	12/15/2010 07:05	Joseph S Feister	1
05551	9a TPH by EPA 8015B Gas C5-C12	TPH GRO SW-846 8015B mod	1	10348A34A	12/15/2010 02:49	Marie D John	20.56
06130	GC - 5 g HL Encore Prep	SW-846 5035	1	201034723285	12/10/2010 12:36	Stephanie A Sanchez	n.a.
10132	20a Energetics by 8330A	SW-846 8330A	1	103510022A	12/21/2010 08:13	Michele D Hamilton	1
04173	17a Formaldehyde by 8315A	SW-846 8315A	1	103480008A	12/17/2010 18:21	Michele D Hamilton	1
06557	6a Perchlorate EPA 6850	SW-846 6850 1/2007	1	103490017A	12/17/2010 15:47	Richard A Shober	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	103490013A	12/19/2010 09:33	Lindsey K Lafferty	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	103490013A	12/15/2010 21:05	Karen L Beyer	1
06568	Perchlorate Soil Prep	SW-846 6850 1/2007	1	103490017A	12/16/2010 09:10	Maria Davenport	1
05876	Formaldehyde Solid Extraction	SW-846 8315A	1	103480008A	12/14/2010 15:00	Kelli M Barto	1
11137	Energetics Extraction	SW-846 8330	1	103510022A	12/19/2010 17:00	Wanda F Oswald	1
10199	9a TPH by EPA 8015B Oil/Diesel	SW-846 8015B modified	1	103490010A	12/21/2010 07:59	Heather E Williams	1
10501	25a Alcohols by 8015B	SW-846 8015B	1	103480002A	12/14/2010 20:25	Dustin A Underkoffler	1
08283	27a Glycols by 8015B	SW-846 8015B modified	1	103480018A	12/15/2010 02:23	Robert Brown	1
10318	26a Terphenyls by 8015B	SW-846 8015B	1	103500031A	12/17/2010 21:33	Heather E Williams	1
11238	EFH Extraction - Soils	SW-846 3550B	1	103490010A	12/15/2010 19:30	Sally L Appleyard	1
10303	Terphenyls soil prep	SW-846 3550B	1	103500031A	12/17/2010 07:00	Kerrie A Freeburn	1
11551	Direct Inj. Solids Glycol Ext.	SW-846 8015B	1	103480018A	12/14/2010 13:00	Dustin A Underkoffler	1
00380	Direct Injection Solids Ext	SW-846 8015B	1	103480002A	12/14/2010 13:00	Dustin A Underkoffler	1
01643	Aluminum	SW-846 6010B	1	103495708002	12/16/2010 17:24	Eric L Eby	1
07914	Boron	SW-846 6010B	1	103495708002	12/16/2010 05:24	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	103495708002	12/16/2010 05:24	Tara L Snyder	1
01654	Iron	SW-846 6010B	1	103495708002	12/16/2010 05:24	Tara L Snyder	1

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**Sample Description:** SL-021-SA5C-SB-4.0-5.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-021-SA5C-SB-4.0-5.0

**LLI Sample #** SW 6162862  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

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Submitted: 12/10/2010 09:15

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E3308 SDG#: DE033-08

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01656	Lithium	SW-846 6010B	1	103495708002	12/16/2010 05:24	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	103495708002	12/16/2010 05:24	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	103495708002	12/16/2010 05:24	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	103495708002	12/16/2010 05:24	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	103495708002	12/16/2010 05:24	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	103495708002	12/16/2010 05:24	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	103495708002	12/16/2010 05:24	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	103495708002	12/16/2010 05:24	Tara L Snyder	1
06970	Titanium	SW-846 6010B	1	103505708003	12/20/2010 17:19	John P Hook	2
10146	Zirconium	SW-846 6010B	1	103495708002	12/16/2010 05:24	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	103491026002A	12/17/2010 15:44	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103491026002A	12/17/2010 15:44	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103491026002D	12/17/2010 15:44	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103491026002A	12/17/2010 15:44	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103491026002A	12/17/2010 15:44	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103491026002A	12/17/2010 15:44	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103491026002A	12/17/2010 15:44	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103491026002A	12/17/2010 15:44	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103491026002A	12/17/2010 15:44	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103491026002C	12/17/2010 15:44	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103491026002A	12/17/2010 15:44	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103491026002B	12/17/2010 15:44	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103491026002A	12/17/2010 15:44	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103491026002A	12/17/2010 15:44	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103491026002A	12/17/2010 15:44	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	103491026002A	12/17/2010 15:44	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	103495711002	12/15/2010 19:52	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	103495708002	12/15/2010 10:35	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	103505708003	12/17/2010 19:17	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103491026002	12/15/2010 11:08	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	103495711002	12/15/2010 12:17	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10352352201A	12/20/2010 16:47	Ashley M Adams	1
07336	11a Anions by 300.0 - Nitrate	EPA 300.0	1	10352352201A	12/20/2010 16:47	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10356356201A	12/27/2010 16:14	Ashley M Adams	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	10356243201A	12/28/2010 19:48	Ashley M Adams	1
05895	21a Cyanide by 9012B	SW-846 9012B	1	10355102202A	12/21/2010 20:23	Joseph E McKenzie	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10352352201A	12/19/2010 16:30	Joseph E McKenzie	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10356356201A	12/22/2010 11:15	Nancy J Shoop	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	10355102202A	12/21/2010 15:35	Carolyn M Mastropietro	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10348182101B	12/14/2010 09:00	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10348039401B	12/14/2010 09:00	Michelle L Lalli	1

\*—This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.



# Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

**Sample Description:** SL-021-SA5C-SB-4.0-5.0 Soil  
SSFL Area IV Collocated Soil Sampling  
SL-021-SA5C-SB-4.0-5.0

**LLI Sample #** SW 6162862  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 11:55

CDM Federal Programs Corp.  
14420 Albemarle Point Place  
Suite 210  
Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3308 SDG#: DE033-08

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10356243201A	12/22/2010 20:10	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	1	10364162401A	12/31/2010 05:52	William C Schwebel	1

\*=This limit was used in the evaluation of the final result  
Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-021-SA5C-SB-9.0-10.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-021-SA5C-SB-9.0-10.0

LLI Sample # SW 6162863  
 LLI Group # 1225035  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 12:00

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3309 SDG#: DE033-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
06192	Acetone	67-64-1	8.4	6.4	7.6		0.87
06192	Benzene	71-43-2	0.1 U	0.1	3.8		0.87
06192	Bromobenzene	108-86-1	0.12 U	0.12	3.8		0.87
06192	Bromochloromethane	74-97-5	0.31 U	0.31	3.8		0.87
06192	Bromodichloromethane	75-27-4	0.08 U	0.08	3.8		0.87
06192	Bromoform	75-25-2	0.38 U	0.38	3.8		0.87
06192	Bromomethane	74-83-9	0.24 U	0.24	3.8		0.87
06192	2-Butanone	78-93-3	1.2 U	1.2	7.6		0.87
06192	n-Butylbenzene	104-51-8	0.11 U	0.11	3.8		0.87
06192	sec-Butylbenzene	135-98-8	0.06 U	0.06	3.8		0.87
06192	tert-Butylbenzene	98-06-6	0.15 U	0.15	3.8		0.87
06192	Carbon Tetrachloride	56-23-5	0.13 U	0.13	3.8		0.87
06192	Chlorobenzene	108-90-7	0.10 U	0.10	3.8		0.87
06192	Chloroethane	75-00-3	0.12 U	0.12	3.8		0.87
06192	2-Chloroethyl Vinyl Ether	110-75-8	0.29 U	0.29	3.8		0.87
06192	Chloroform	67-66-3	0.11 U	0.11	3.8		0.87
06192	Chloromethane	74-87-3	0.31 U	0.31	3.8		0.87
06192	2-Chlorotoluene	95-49-8	0.13 U	0.13	3.8		0.87
06192	4-Chlorotoluene	106-43-4	0.13 U	0.13	3.8		0.87
06192	Chlorotrifluoroethene	79-38-9	0.48 U	0.48	4.8		0.87
06192	1,2-Dibromo-3-chloropropane	96-12-8	0.67 U	0.67	3.8		0.87
06192	Dibromochloromethane	124-48-1	0.19 U	0.19	3.8		0.87
06192	1,2-Dibromoethane	106-93-4	0.16 U	0.16	3.8		0.87
06192	Dibromomethane	74-95-3	0.23 U	0.23	3.8		0.87
06192	1,2-Dichlorobenzene	95-50-1	0.09 U	0.09	3.8		0.87
06192	1,3-Dichlorobenzene	541-73-1	0.11 U	0.11	3.8		0.87
06192	1,4-Dichlorobenzene	106-46-7	0.15 U	0.15	3.8		0.87
06192	Dichlorodifluoromethane	75-71-8	0.11 U	0.11	3.8		0.87
06192	1,1-Dichloroethane	75-34-3	0.1 U	0.1	3.8		0.87
06192	1,2-Dichloroethane	107-06-2	0.14 U	0.14	3.8		0.87
06192	1,1-Dichloroethene	75-35-4	0.37 U	0.37	3.8		0.87
06192	cis-1,2-Dichloroethene	156-59-2	0.18 U	0.18	3.8		0.87
06192	trans-1,2-Dichloroethene	156-60-5	0.11 U	0.11	3.8		0.87
06192	1,2-Dichloropropane	78-87-5	0.16 U	0.16	3.8		0.87
06192	1,3-Dichloropropane	142-28-9	0.08 U	0.08	3.8		0.87
06192	2,2-Dichloropropane	594-20-7	0.16 U	0.16	3.8		0.87
06192	1,1-Dichloropropene	563-58-6	0.12 U	0.12	3.8		0.87
06192	cis-1,3-Dichloropropene	10061-01-5	0.15 U	0.15	3.8		0.87
06192	trans-1,3-Dichloropropene	10061-02-6	0.16 U	0.16	3.8		0.87
06192	Ethylbenzene	100-41-4	0.06 U	0.06	3.8		0.87
06192	Freon 113	76-13-1	0.10 U	0.10	3.8		0.87
06192	Freon 133a	75-88-7	0.48 U	0.48	4.8		0.87
06192	Hexachlorobutadiene	87-68-3	0.13 U	0.13	3.8		0.87
06192	2-Hexanone	591-78-6	1.5 U	1.5	7.6		0.87
06192	Isopropylbenzene	98-82-8	0.06 U	0.06	3.8		0.87
06192	p-Isopropyltoluene	99-87-6	0.10 U	0.10	3.8		0.87
06192	Methyl Tertiary Butyl Ether	1634-04-4	0.20 U	0.20	3.8		0.87
06192	4-Methyl-2-pentanone	108-10-1	0.37 U	0.37	7.6		0.87
06192	Methylene Chloride	75-09-2	2.9 J	0.23	3.8		0.87
06192	n-Propylbenzene	103-65-1	0.07 U	0.07	3.8		0.87

\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-021-SA5C-SB-9.0-10.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-021-SA5C-SB-9.0-10.0

**LLI Sample #** SW 6162863  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 12:00

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3309 SDG#: DE033-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS Volatiles SW-846 8260B</b>							
06192	Styrene	100-42-5	0.1 U	0.1	3.8		0.87
06192	1,1,1,2-Tetrachloroethane	630-20-6	0.10 U	0.10	3.8		0.87
06192	1,1,2,2-Tetrachloroethane	79-34-5	0.22 U	0.22	3.8		0.87
06192	Tetrachloroethene	127-18-4	0.19 U	0.19	3.8		0.87
06192	Toluene	108-88-3	0.14 J	0.08	3.8		0.87
06192	1,2,3-Trichlorobenzene	87-61-6	0.13 U	0.13	3.8		0.87
06192	1,2,4-Trichlorobenzene	120-82-1	0.17 U	0.17	3.8		0.87
06192	1,1,1-Trichloroethane	71-55-6	0.19 U	0.19	3.8		0.87
06192	1,1,2-Trichloroethane	79-00-5	0.26 U	0.26	3.8		0.87
06192	Trichloroethene	79-01-6	0.14 U	0.14	3.8		0.87
06192	Trichlorofluoromethane	75-69-4	0.28 U	0.28	3.8		0.87
06192	1,2,3-Trichloropropane	96-18-4	0.31 U	0.31	3.8		0.87
06192	1,2,4-Trimethylbenzene	95-63-6	0.38 U	0.38	3.8		0.87
06192	1,3,5-Trimethylbenzene	108-67-8	0.1 U	0.1	3.8		0.87
06192	Vinyl Chloride	75-01-4	0.19 U	0.19	3.8		0.87
06192	m+p-Xylene	179601-23-1	0.16 U	0.16	3.8		0.87
06192	o-Xylene	95-47-6	0.16 U	0.16	3.8		0.87
<b>GC/MS Volatiles SW-846 8260B SIM</b>							
10326	1,4-Dioxane	123-91-1	4.9 U	4.9	15		22.2
<b>GC/MS Semivolatiles EPA 1625C</b>							
11622	N-Nitrosodimethylamine	62-75-9	114	18.2	36.4		1
<b>GC/MS Semivolatiles SW-846 8270C</b>							
04688	Aniline	62-53-3	180	U 180	550		1
04688	Benzidine	92-87-5	1,300	U 1,300	3,600		1
04688	Benzoic acid	65-85-0	180	U 180	550		1
04688	Benzyl alcohol	100-51-6	180	U 180	550		1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180		1
04688	Carbazole	86-74-8	18	U 18	180		1
04688	4-Chloro-3-methylphenol	59-50-7	36	U 36	180		1
04688	4-Chloroaniline	106-47-8	73	U 73	180		1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180		1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180		1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180		1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180		1
04688	2-Chlorophenol	95-57-8	18	U 18	180		1
04688	4-Chlorophenyl-phenylether	7005-72-3	36	U 36	180		1
04688	Dibenzofuran	132-64-9	18	U 18	180		1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180		1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180		1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180		1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	360		1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180		1
04688	2,4-Dimethylphenol	105-67-9	36	U 36	180		1
04688	3,5-Dimethylphenol	108-68-9	36	U 36	180		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	550		1
04688	2,4-Dinitrophenol	51-28-5	730	U 730	2,200		1

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 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-021-SA5C-SB-9.0-10.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-021-SA5C-SB-9.0-10.0

LLI Sample # SW 6162863  
 LLI Group # 1225035  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 12:00

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3309 SDG#: DE033-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04688	2,4-Dinitrotoluene	121-14-2	36	U 36	180		1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180		1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180		1
04688	Hexachlorobenzene	118-74-1	18	U 18	180		1
04688	Hexachlorobutadiene	87-68-3	73	U 73	180		1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	550		1
04688	Hexachloroethane	67-72-1	18	U 18	180		1
04688	Isophorone	78-59-1	18	U 18	180		1
04688	2-Methylphenol	95-48-7	36	U 36	180		1
04688	4-Methylphenol	106-44-5	36	U 36	180		1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.							
04688	2-Nitroaniline	88-74-4	18	U 18	180		1
04688	3-Nitroaniline	99-09-2	36	U 36	180		1
04688	4-Nitroaniline	100-01-6	73	U 73	180		1
04688	Nitrobenzene	98-95-3	18	U 18	180		1
04688	2-Nitrophenol	88-75-5	18	U 18	180		1
04688	4-Nitrophenol	100-02-7	180	U 180	550		1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180		1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180		1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.							
04688	Pentachlorophenol	87-86-5	180	U 180	550		1
04688	Phenol	108-95-2	18	U 18	180		1
04688	1,2,4-Trichlorobenzene	120-82-1	18	U 18	180		1
04688	2,4,5-Trichlorophenol	95-95-4	36	U 36	180		1
04688	2,4,6-Trichlorophenol	88-06-2	36	U 36	180		1

The LCS recovery is outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: bis(2-chloroisopropyl)ether

GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	ug/kg
10138	Acenaphthene	83-32-9	0.73	U 0.73	1.8	1
10138	Acenaphthylene	208-96-8	0.63	J 0.36	1.8	1
10138	Anthracene	120-12-7	1.7	J 0.36	1.8	1
10138	Benzo(a)anthracene	56-55-3	2.7	U 0.73	1.8	1
10138	Benzo(a)pyrene	50-32-8	2.6	U 0.73	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	3.7	U 0.73	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	1.3	J 0.73	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	3.0	U 0.73	1.8	1
10138	Butylbenzylphthalate	85-68-7	19	J 6.6	20	1
10138	Di-n-butylphthalate	84-74-2	7.9	J 6.6	20	1
10138	Chrysene	218-01-9	3.4	U 0.36	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	1.3	J 0.73	1.8	1
10138	Diethylphthalate	84-66-2	6.6	U 6.6	20	1
10138	Dimethylphthalate	131-11-3	6.6	U 6.6	20	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	45	6.6	20	1

\*=This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-021-SA5C-SB-9.0-10.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-021-SA5C-SB-9.0-10.0

**LLI Sample #** SW 6162863  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 12:00

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3309 SDG#: DE033-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS Semivolatiles SW-846 8270C SIM</b>							
10138	Fluoranthene	206-44-0	4.5	0.73	1.8	ug/kg	1
10138	Fluorene	86-73-7	1.0	J 0.73	1.8	ug/kg	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	1.4	J 0.73	1.8	ug/kg	1
10138	1-Methylnaphthalene	90-12-0	0.73	U 0.73	1.8	ug/kg	1
10138	2-Methylnaphthalene	91-57-6	0.73	U 0.73	1.8	ug/kg	1
10138	Naphthalene	91-20-3	0.73	U 0.73	1.8	ug/kg	1
10138	N-Nitrosodimethylamine	62-75-9	0.73	U 0.73	1.8	ug/kg	1
10138	Di-n-octylphthalate	117-84-0	8.5	J 6.6	20	ug/kg	1
10138	Phenanthrene	85-01-8	2.1	0.73	1.8	ug/kg	1
10138	Pyrene	129-00-0	3.6	0.73	1.8	ug/kg	1
Bis(2-ethylhexyl)phthalate was detected in the method blank at a concentration of 6.5 ug/kg. The blank value was not subtracted from the analytical result.							
<b>GC Volatiles TPH GRO SW-846 8015B mod</b>							
05551	9a TPH by EPA 8015B Gas C5-C12	n.a.	0.2	U 0.2	0.9	mg/kg	19.72
<b>Explosives SW-846 8330A</b>							
10132	4-Amino-2,6-Dinitrotoluene	19406-51-0	82	U 82	160	ug/kg	1000000
10132	2-Amino-4,6-Dinitrotoluene	35572-78-2	55	U 55	160	ug/kg	1000000
10132	2,6-Diamino-4-nitrotoluene	59229-75-3	110	U 110	330	ug/kg	1000000
10132	2,4-Diamino-6-nitrotoluene	6629-29-4	110	U 110	330	ug/kg	1000000
10132	1,3-Dinitrobenzene	99-65-0	55	U 55	160	ug/kg	1000000
10132	2,4-Dinitrotoluene	121-14-2	55	U 55	160	ug/kg	1000000
10132	2,6-Dinitrotoluene	606-20-2	55	U 55	160	ug/kg	1000000
10132	HMX	2691-41-0	140	U 140	410	ug/kg	1000000
10132	Nitrobenzene	98-95-3	55	U 55	160	ug/kg	1000000
10132	Nitroglycerin	55-63-0	1,100	U 1,100	3,300	ug/kg	1000000
10132	2-Nitrotoluene	88-72-2	110	U 110	160	ug/kg	1000000
10132	3-Nitrotoluene	99-08-1	140	U 140	160	ug/kg	1000000
10132	4-Nitrotoluene	99-99-0	110	U 110	160	ug/kg	1000000
10132	PETN	78-11-5	1,100	U 1,100	3,300	ug/kg	1000000
10132	RDX	121-82-4	68	U 68	160	ug/kg	1000000

\*=This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-021-SA5C-SB-9.0-10.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-021-SA5C-SB-9.0-10.0

LLI Sample # SW 6162863  
 LLI Group # 1225035  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 12:00

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3309 SDG#: DE033-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Explosives</b>							
		<b>SW-846 8330A</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10132	Tetryl	479-45-8	84	U 84	160	1000000	1
10132	1,3,5-Trinitrobenzene	99-35-4	55	U 55	160	1000000	1
10132	2,4,6-Trinitrotoluene	118-96-7	55	U 55	160	1000000	1
<b>HPLC Organics</b>							
		<b>SW-846 8315A</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04173	17a Formaldehyde by	8315A 50-00-0	660	U 660	1,600		1
<b>Perchlorate</b>							
		<b>SW-846 6850 1/2007</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
06557	6a Perchlorate EPA	6850 14797-73-0	2.3	U 2.3	5.5		1
<b>Pesticides/PCBs</b>							
		<b>SW-846 8082</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10225	Aroclor 5432	63496-31-1	1.1	U 1.1	3.6		1
10225	Aroclor 5442	12642-23-8	1.1	U 1.1	3.6		1
10225	Aroclor 5460	11126-42-4	1.1	U 1.1	3.6		1
10225	PCB-1016	12674-11-2	0.36	U 0.36	1.9		1
10225	PCB-1221	11104-28-2	0.55	U 0.55	1.9		1
10225	PCB-1232	11141-16-5	0.57	U 0.57	1.9		1
10225	PCB-1242	53469-21-9	0.55	U 0.55	1.9		1
10225	PCB-1248	12672-29-6	1.6	J 0.36	1.9		1
10225	PCB-1254	11097-69-1	0.78	J 0.36	1.9		1
10225	PCB-1260	11096-82-5	0.64	J 0.36	1.9		1
10225	PCB-1262	37324-23-5	0.36	U 0.36	1.9		1
10225	PCB-1268	11100-14-4	0.36	U 0.36	1.9		1
The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.							
<b>GC Extractable TPH</b>							
		<b>SW-846 8015B modified</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
10199	EFH (C12-C14)	n.a.	0.44	U 0.44	1.3		1
10199	EFH (C15-C20)	n.a.	0.63	J 0.44	1.3		1
10199	EFH (C21-C30)	n.a.	7.3	0.44	1.3		1
10199	EFH (C30 - C40)	n.a.	13	0.44	1.3		1
10199	EFH (C8-C11)	n.a.	0.44	U 0.44	1.3		1
<b>GC Miscellaneous</b>							
		<b>SW-846 8015B</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10501	Ethanol	64-17-5	110	U 110	550		1
10501	Isopropanol	67-63-0	110	U 110	550		1
10501	Methanol	67-56-1	110	U 110	550		1
<b>GC Miscellaneous</b>							
		<b>SW-846 8015B modified</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
08283	Diethylene glycol	111-46-6	5.5	U 5.5	14		1
08283	Ethylene glycol	107-21-1	5.5	U 5.5	14		1
08283	Propylene glycol	57-55-6	5.5	U 5.5	14		1

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**Sample Description:** SL-021-SA5C-SB-9.0-10.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-021-SA5C-SB-9.0-10.0

LLI Sample # SW 6162863  
 LLI Group # 1225035  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 12:00

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3309 SDG#: DE033-09

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Terphenyls</b>			<b>mg/kg</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
10318	m-Terphenyl	92-06-8	1.6	U	1.6	3.8		1
10318	o-Terphenyl	84-15-1	1.6	U	1.6	3.8		1
10318	p-Terphenyl	92-94-4	1.6	U	1.6	3.8		1
<b>Metals</b>			<b>mg/kg</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
01643	Aluminum	7429-90-5	14,700		5.34	21.2		1
07914	Boron	7440-42-8	2.17	J	0.944	5.31		1
01650	Calcium	7440-70-2	7,450		6.50	21.2		1
01654	Iron	7439-89-6	20,300		5.00	21.2		1
01656	Lithium	7439-93-2	20.0		0.23	2.1		1
01657	Magnesium	7439-95-4	3,970		2.70	10.6		1
06958	Manganese	7439-96-5	260		0.0828	0.531		1
10145	Phosphorus	7723-14-0	332		0.594	10.6		1
01662	Potassium	7440-09-7	2,770		19.1	53.1		1
01667	Sodium	7440-23-5	156		39.6	106		1
07968	Strontium	7440-24-6	19.4		0.0658	0.531		1
06969	Tin	7440-31-5	2.44	J	1.06	10.6		1
06970	Titanium	7440-32-6	1,140		0.831	2.19		2
10146	Zirconium	7440-67-7	1.71	J	0.891	5.31		1
<b>SW-846 6020</b>			<b>mg/kg</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
06124	Antimony	7440-36-0	0.0986	J	0.0643	0.214		2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.								
06125	Arsenic	7440-38-2	5.61		0.0643	0.429		2
06126	Barium	7440-39-3	109		0.116	0.429		2
06127	Beryllium	7440-41-7	0.631		0.0171	0.107		2
06128	Cadmium	7440-43-9	0.194		0.0386	0.107		2
06131	Chromium	7440-47-3	22.8		0.129	0.429		2
06132	Cobalt	7440-48-4	6.48		0.0214	0.107		2
06133	Copper	7440-50-8	10.0		0.0707	0.429		2
06135	Lead	7439-92-1	7.51		0.0111	0.214		2
06138	Molybdenum	7439-98-7	0.570		0.0536	0.107		2
06139	Nickel	7440-02-0	12.7		0.107	0.429		2
06141	Selenium	7782-49-2	0.115	J	0.0429	0.429		2
06142	Silver	7440-22-4	0.0462	J	0.0129	0.107		2
06145	Thallium	7440-28-0	0.276		0.0321	0.107		2
06148	Vanadium	7440-62-2	41.1		0.0236	0.107		2
06149	Zinc	7440-66-6	70.7		0.600	3.21		2
<b>SW-846 7471A</b>			<b>mg/kg</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
00159	Mercury	7439-97-6	0.0070	J	0.0029	0.102		1
<b>Wet Chemistry</b>			<b>mg/kg</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	3.7		0.87	1.1		1
07336	11a Anions by 300.0 - Nitrate	14797-55-8	1.8		0.87	1.6		1

\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.



# Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

**Sample Description:** SL-021-SA5C-SB-9.0-10.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-021-SA5C-SB-9.0-10.0

**LLI Sample #** SW 6162863  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 12:00

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3309 SDG#: DE033-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Wet Chemistry EPA 314.0</b>							
10147	7a Perchlorate EPA 314.0	14797-73-0	9.8 U	9.8	32.8	ug/kg	1
<b>SW-846 7199</b>							
05892	3a Cr VI by EPA 7199	18540-29-9	1.1	0.22	1.1	mg/kg	1
<b>SW-846 9012B</b>							
05895	21a Cyanide by 9012B	57-12-5	0.20 U	0.20	0.54	mg/kg	1
<b>ASTM D1498</b>							
01821	Oxidation Reduction Potential	n.a.	453	10.0	10.0	mV	1
The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.							
<b>SW-846 9045C modified</b>							
00394	22a pH by 9045C	n.a.	8.76	0.0100	0.0100	Std. Units	1
<b>Wet Chemistry EPA 160.3 modified</b>							
11624	28a Moisture Content by 160.3	n.a.	8.5	0.50	0.50	%	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.							

### General Sample Comments

State of California Lab Certification No. 2501  
 The volatile analysis was performed on soil from SL-021-SA5C-SB-9.5.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06192	1a Volatile Organics EPA 8260B	SW-846 8260B	1	B103481AA	12/14/2010 14:58	Nicholas R Rossi	0.87
10326	14a 1,4-Dioxane by 8260B SIM	SW-846 8260B SIM	1	E103492AA	12/15/2010 17:56	Jason M Long	22.2
08390	GC/MS - HL Encore Prep	SW-846 5035	1	201034723285	12/10/2010 12:39	Stephanie A Sanchez	n.a.
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035	1	201034723283	12/10/2010 12:38	Stephanie A Sanchez	n.a.
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035	2	201034723283	12/10/2010 12:38	Stephanie A Sanchez	n.a.

\*-This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description: SL-021-SA5C-SB-9.0-10.0 Soil**  
**SSFL Area IV Collocated Soil Sampling**  
**SL-021-SA5C-SB-9.0-10.0**

**LLI Sample # SW 6162863**  
**LLI Group # 1225035**  
**Account # 13013**

**Project Name: SSFL Area IV Collocated Soil Sampling**

Collected: 12/08/2010 12:00

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3309 SDG#: DE033-09

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07578	GC/MS-HL Encore Prep-NC	SW-846 5035	1	201034723285	12/10/2010 12:39	Stephanie A Sanchez	n.a.
11622	19a NDMA by 1625C	EPA 1625C	1	10350SLF026	12/29/2010 11:57	Timothy J Trees	1
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10348SLG026	12/22/2010 13:18	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10349SLF026	12/21/2010 10:45	Mark A Clark	1
11630	NDMA Soil Microwave	SW-846 3546	1	10350SLF026	12/17/2010 01:00	Sherry L Morrow	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10349SLF026	12/16/2010 07:00	Joseph S Feister	1
00381	BNA Soil Sonication	SW-846 3550B	1	10348SLG026	12/15/2010 07:05	Joseph S Feister	1
05551	9a TPH by EPA 8015B Gas C5-C12	TPH GRO SW-846 8015B mod	1	10348A34A	12/15/2010 12:09	Marie D John	19.72
06130	GC - 5 g HL Encore Prep	SW-846 5035	1	201034723285	12/10/2010 12:39	Stephanie A Sanchez	n.a.
10132	20a Energetics by 8330A	SW-846 8330A	1	103510022A	12/21/2010 08:55	Michele D Hamilton	1
04173	17a Formaldehyde by 8315A	SW-846 8315A	1	103480008A	12/17/2010 18:30	Michele D Hamilton	1
06557	6a Perchlorate EPA 6850	SW-846 6850 1/2007	1	103490017A	12/17/2010 15:53	Richard A Shober	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	103490013A	12/19/2010 09:52	Lindsey K Lafferty	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	103490013A	12/15/2010 21:05	Karen L Beyer	1
06568	Perchlorate Soil Prep	SW-846 6850 1/2007	1	103490017A	12/16/2010 09:10	Maria Davenport	1
05876	Formaldehyde Solid Extraction	SW-846 8315A	1	103480008A	12/14/2010 15:00	Kelli M Barto	1
11137	Energetics Extraction	SW-846 8330	1	103510022A	12/19/2010 17:00	Wanda F Oswald	1
10199	9a TPH by EPA 8015B Oil/Diesel	SW-846 8015B modified	1	103490010A	12/21/2010 05:55	Heather E Williams	1
10501	25a Alcohols by 8015B	SW-846 8015B	1	103480002A	12/14/2010 20:40	Dustin A Underkoffler	1
08283	27a Glycols by 8015B	SW-846 8015B modified	1	103480018A	12/14/2010 23:27	Robert Brown	1
10318	26a Terphenyls by 8015B	SW-846 8015B	1	103500031A	12/18/2010 03:32	Heather E Williams	1
11238	EFH Extraction - Soils	SW-846 3550B	1	103490010A	12/15/2010 19:30	Sally L Appleyard	1
10303	Terphenyls soil prep	SW-846 3550B	1	103500031A	12/17/2010 07:00	Kerrie A Freeburn	1
11551	Direct Inj. Solids Glycol Ext.	SW-846 8015B	1	103480018A	12/14/2010 13:00	Dustin A Underkoffler	1
00380	Direct Injection Solids Ext	SW-846 8015B	1	103480002A	12/14/2010 13:00	Dustin A Underkoffler	1
01643	Aluminum	SW-846 6010B	1	103495708002	12/16/2010 17:27	Eric L Eby	1
07914	Boron	SW-846 6010B	1	103495708002	12/16/2010 05:28	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	103495708002	12/16/2010 05:28	Tara L Snyder	1
01654	Iron	SW-846 6010B	1	103495708002	12/16/2010 05:28	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	103495708002	12/16/2010 05:28	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	103495708002	12/16/2010 05:28	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	103495708002	12/16/2010 05:28	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	103495708002	12/16/2010 05:28	Tara L Snyder	1

\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-021-SA5C-SB-9.0-10.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-021-SA5C-SB-9.0-10.0

**LLI Sample #** SW 6162863  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 12:00

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3309 SDG#: DE033-09

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01662	Potassium	SW-846 6010B	1	103495708002	12/16/2010 05:28	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	103495708002	12/16/2010 05:28	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	103495708002	12/16/2010 05:28	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	103495708002	12/16/2010 05:28	Tara L Snyder	1
06970	Titanium	SW-846 6010B	1	103505708003	12/20/2010 17:23	John P Hook	2
10146	Zirconium	SW-846 6010B	1	103495708002	12/16/2010 05:28	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	103491026002A	12/17/2010 15:47	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103491026002A	12/17/2010 15:47	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103491026002D	12/17/2010 15:47	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103491026002A	12/17/2010 15:47	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103491026002A	12/17/2010 15:47	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103491026002A	12/17/2010 15:47	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103491026002A	12/17/2010 15:47	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103491026002A	12/17/2010 15:47	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103491026002A	12/17/2010 15:47	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103491026002C	12/17/2010 15:47	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103491026002A	12/17/2010 15:47	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103491026002B	12/17/2010 15:47	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103491026002A	12/17/2010 15:47	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103491026002A	12/17/2010 15:47	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103491026002A	12/17/2010 15:47	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	103491026002A	12/17/2010 15:47	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	103495711002	12/15/2010 19:54	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	103495708002	12/15/2010 10:35	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	103505708003	12/17/2010 19:17	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103491026002	12/15/2010 11:08	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	103495711002	12/15/2010 12:17	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10352352201A	12/20/2010 17:01	Ashley M Adams	1
07336	11a Anions by 300.0 - Nitrate	EPA 300.0	1	10352352201A	12/20/2010 17:01	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10356356201A	12/27/2010 16:38	Ashley M Adams	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	10356243201A	12/28/2010 20:07	Ashley M Adams	1
05895	21a Cyanide by 9012B	SW-846 9012B	1	10355102202A	12/21/2010 20:24	Joseph E McKenzie	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10352352201A	12/19/2010 16:30	Joseph E McKenzie	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10356356201A	12/22/2010 11:15	Nancy J Shoop	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	10355102202A	12/21/2010 15:35	Carolyn M Mastropietro	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10348182101B	12/14/2010 09:00	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10348039401B	12/14/2010 09:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10356243201A	12/22/2010 20:10	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	1	10364162401A	12/31/2010 05:52	William C Schwebel	1

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 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-017-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-017-SA5B-SS-0.0-0.5

LLI Sample # SW 6162864  
 LLI Group # 1225035  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 15:30

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3310 SDG#: DE033-10BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
06192	Acetone	67-64-1	6.6 U	6.6	7.9		0.9
06192	Benzene	71-43-2	0.1 U	0.1	4.0		0.9
06192	Bromobenzene	108-86-1	0.13 U	0.13	4.0		0.9
06192	Bromochloromethane	74-97-5	0.33 U	0.33	4.0		0.9
06192	Bromodichloromethane	75-27-4	0.08 U	0.08	4.0		0.9
06192	Bromoform	75-25-2	0.40 U	0.40	4.0		0.9
06192	Bromomethane	74-83-9	0.25 U	0.25	4.0		0.9
06192	2-Butanone	78-93-3	1.2 U	1.2	7.9		0.9
06192	n-Butylbenzene	104-51-8	0.12 U	0.12	4.0		0.9
06192	sec-Butylbenzene	135-98-8	0.06 U	0.06	4.0		0.9
06192	tert-Butylbenzene	98-06-6	0.16 U	0.16	4.0		0.9
06192	Carbon Tetrachloride	56-23-5	0.14 U	0.14	4.0		0.9
06192	Chlorobenzene	108-90-7	0.11 U	0.11	4.0		0.9
06192	Chloroethane	75-00-3	0.13 U	0.13	4.0		0.9
06192	2-Chloroethyl Vinyl Ether	110-75-8	0.30 U	0.30	4.0		0.9
06192	Chloroform	67-66-3	0.12 U	0.12	4.0		0.9
06192	Chloromethane	74-87-3	0.33 U	0.33	4.0		0.9
06192	2-Chlorotoluene	95-49-8	0.14 U	0.14	4.0		0.9
06192	4-Chlorotoluene	106-43-4	0.14 U	0.14	4.0		0.9
06192	Chlorotrifluoroethene	79-38-9	0.49 U	0.49	4.9		0.9
06192	1,2-Dibromo-3-chloropropane	96-12-8	0.69 U	0.69	4.0		0.9
06192	Dibromochloromethane	124-48-1	0.20 U	0.20	4.0		0.9
06192	1,2-Dibromoethane	106-93-4	0.17 U	0.17	4.0		0.9
06192	Dibromomethane	74-95-3	0.24 U	0.24	4.0		0.9
06192	1,2-Dichlorobenzene	95-50-1	0.09 U	0.09	4.0		0.9
06192	1,3-Dichlorobenzene	541-73-1	0.12 U	0.12	4.0		0.9
06192	1,4-Dichlorobenzene	106-46-7	0.16 U	0.16	4.0		0.9
06192	Dichlorodifluoromethane	75-71-8	0.12 U	0.12	4.0		0.9
06192	1,1-Dichloroethane	75-34-3	0.1 U	0.1	4.0		0.9
06192	1,2-Dichloroethane	107-06-2	0.15 U	0.15	4.0		0.9
06192	1,1-Dichloroethene	75-35-4	0.39 U	0.39	4.0		0.9
06192	cis-1,2-Dichloroethene	156-59-2	0.19 U	0.19	4.0		0.9
06192	trans-1,2-Dichloroethene	156-60-5	0.12 U	0.12	4.0		0.9
06192	1,2-Dichloropropane	78-87-5	0.17 U	0.17	4.0		0.9
06192	1,3-Dichloropropane	142-28-9	0.08 U	0.08	4.0		0.9
06192	2,2-Dichloropropane	594-20-7	0.17 U	0.17	4.0		0.9
06192	1,1-Dichloropropene	563-58-6	0.13 U	0.13	4.0		0.9
06192	cis-1,3-Dichloropropene	10061-01-5	0.16 U	0.16	4.0		0.9
06192	trans-1,3-Dichloropropene	10061-02-6	0.17 U	0.17	4.0		0.9
06192	Ethylbenzene	100-41-4	0.06 U	0.06	4.0		0.9
06192	Freon 113	76-13-1	0.11 U	0.11	4.0		0.9
06192	Freon 133a	75-88-7	0.49 U	0.49	4.9		0.9
06192	Hexachlorobutadiene	87-68-3	0.14 U	0.14	4.0		0.9
06192	2-Hexanone	591-78-6	1.6 U	1.6	7.9		0.9
06192	Isopropylbenzene	98-82-8	0.06 U	0.06	4.0		0.9
06192	p-Isopropyltoluene	99-87-6	0.11 U	0.11	4.0		0.9
06192	Methyl Tertiary Butyl Ether	1634-04-4	0.21 U	0.21	4.0		0.9
06192	4-Methyl-2-pentanone	108-10-1	0.39 U	0.39	7.9		0.9
06192	Methylene Chloride	75-09-2	0.59 U	0.24	4.0		0.9
06192	n-Propylbenzene	103-65-1	0.07 U	0.07	4.0		0.9

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**Sample Description:** SL-017-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-017-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162864  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 15:30

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3310 SDG#: DE033-10BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS Volatiles SW-846 8260B</b>							
06192	Styrene	100-42-5	0.1 U	0.1	4.0		0.9
06192	1,1,1,2-Tetrachloroethane	630-20-6	0.11 U	0.11	4.0		0.9
06192	1,1,2,2-Tetrachloroethane	79-34-5	0.23 U	0.23	4.0		0.9
06192	Tetrachloroethene	127-18-4	0.20 U	0.20	4.0		0.9
06192	Toluene	108-88-3	0.08 J	0.08	4.0		0.9
06192	1,2,3-Trichlorobenzene	87-61-6	0.14 U	0.14	4.0		0.9
06192	1,2,4-Trichlorobenzene	120-82-1	0.18 U	0.18	4.0		0.9
06192	1,1,1-Trichloroethane	71-55-6	0.20 U	0.20	4.0		0.9
06192	1,1,2-Trichloroethane	79-00-5	0.27 U	0.27	4.0		0.9
06192	Trichloroethene	79-01-6	0.15 U	0.15	4.0		0.9
06192	Trichlorofluoromethane	75-69-4	0.29 U	0.29	4.0		0.9
06192	1,2,3-Trichloropropane	96-18-4	0.33 U	0.33	4.0		0.9
06192	1,2,4-Trimethylbenzene	95-63-6	0.40 U	0.40	4.0		0.9
06192	1,3,5-Trimethylbenzene	108-67-8	0.1 U	0.1	4.0		0.9
06192	Vinyl Chloride	75-01-4	0.20 U	0.20	4.0		0.9
06192	m+p-Xylene	179601-23-1	0.17 U	0.17	4.0		0.9
06192	o-Xylene	95-47-6	0.17 U	0.17	4.0		0.9
<b>GC/MS Volatiles SW-846 8260B SIM</b>							
10326	1,4-Dioxane	123-91-1	4.6 U	4.6	14		21.19
<b>GC/MS Semivolatiles EPA 1625C</b>							
11622	N-Nitrosodimethylamine	62-75-9	21.8 J	18.2	36.4		1
<b>GC/MS Semivolatiles SW-846 8270C</b>							
04688	Aniline	62-53-3	180	U 180	550		1
04688	Benzidine	92-87-5	1,300	U 1,300	3,600		1
04688	Benzoic acid	65-85-0	180	U 180	550		1
04688	Benzyl alcohol	100-51-6	180	U 180	550		1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180		1
04688	Carbazole	86-74-8	18	U 18	180		1
04688	4-Chloro-3-methylphenol	59-50-7	36	U 36	180		1
04688	4-Chloroaniline	106-47-8	73	U 73	180		1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180		1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180		1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180		1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180		1
04688	2-Chlorophenol	95-57-8	18	U 18	180		1
04688	4-Chlorophenyl-phenylether	7005-72-3	36	U 36	180		1
04688	Dibenzofuran	132-64-9	18	U 18	180		1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180		1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180		1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180		1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	360		1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180		1
04688	2,4-Dimethylphenol	105-67-9	36	U 36	180		1
04688	3,5-Dimethylphenol	108-68-9	36	U 36	180		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	550		1
04688	2,4-Dinitrophenol	51-28-5	730	U 730	2,200		1

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**Sample Description:** SL-017-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-017-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162864  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 15:30

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3310 SDG#: DE033-10BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04688	2,4-Dinitrotoluene	121-14-2	36	U 36	180		1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180		1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180		1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	20	J 18	360		1
04688	Hexachlorobenzene	118-74-1	18	U 18	180		1
04688	Hexachlorobutadiene	87-68-3	73	U 73	180		1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	550		1
04688	Hexachloroethane	67-72-1	18	U 18	180		1
04688	Isophorone	78-59-1	18	U 18	180		1
04688	2-Methylphenol	95-48-7	36	U 36	180		1
04688	4-Methylphenol	106-44-5	36	U 36	180		1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.							
04688	2-Nitroaniline	88-74-4	18	U 18	180		1
04688	3-Nitroaniline	99-09-2	36	U 36	180		1
04688	4-Nitroaniline	100-01-6	73	U 73	180		1
04688	Nitrobenzene	98-95-3	18	U 18	180		1
04688	2-Nitrophenol	88-75-5	18	U 18	180		1
04688	4-Nitrophenol	100-02-7	180	U 180	550		1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180		1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180		1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.							
04688	Pentachlorophenol	87-86-5	180	U 180	550		1
04688	Phenol	108-95-2	18	U 18	180		1
04688	1,2,4-Trichlorobenzene	120-82-1	18	U 18	180		1
04688	2,4,5-Trichlorophenol	95-95-4	36	U 36	180		1
04688	2,4,6-Trichlorophenol	88-06-2	36	U 36	180		1

The LCS recovery is outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance:  
 bis(2-chloroisopropyl)ether

GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	ug/kg
10138	Acenaphthene	83-32-9	0.73	U 0.73	1.8	1
10138	Acenaphthylene	208-96-8	0.36	U 0.36	1.8	1
10138	Anthracene	120-12-7	0.36	U 0.36	1.8	1
10138	Benzo(a)anthracene	56-55-3	2.2	0.73	1.8	1
10138	Benzo(a)pyrene	50-32-8	1.8	J 0.73	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	3.2	0.73	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	0.75	J 0.73	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	1.4	J 0.73	1.8	1
10138	Butylbenzylphthalate	85-68-7	6.6	U 6.6	20	1
10138	Di-n-butylphthalate	84-74-2	6.6	U 6.6	20	1
10138	Chrysene	218-01-9	2.0	0.36	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.73	U 0.73	1.8	1
10138	Diethylphthalate	84-66-2	6.6	U 6.6	20	1
10138	Dimethylphthalate	131-11-3	6.6	U 6.6	20	1

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**Sample Description:** SL-017-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-017-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162864  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

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E3310 SDG#: DE033-10BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS Semivolatiles SW-846 8270C SIM</b>							
10138	Fluoranthene	206-44-0	4.1	0.73	1.8		1
10138	Fluorene	86-73-7	0.73 U	0.73	1.8		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.73 U	0.73	1.8		1
10138	1-Methylnaphthalene	90-12-0	0.73 U	0.73	1.8		1
10138	2-Methylnaphthalene	91-57-6	0.73 U	0.73	1.8		1
10138	Naphthalene	91-20-3	0.73 U	0.73	1.8		1
10138	N-Nitrosodimethylamine	62-75-9	0.73 U	0.73	1.8		1
10138	Di-n-octylphthalate	117-84-0	6.6 U	6.6	20		1
10138	Phenanthrene	85-01-8	1.1 J	0.73	1.8		1
10138	Pyrene	129-00-0	3.2	0.73	1.8		1
<b>GC Volatiles TPH GRO SW-846 8015B mod</b>							
05551	9a TPH by EPA 8015B Gas C5-C12	n.a.	0.2 U	0.2	1		22.52
<b>Explosives SW-846 8330A</b>							
10132	4-Amino-2,6-Dinitrotoluene	19406-51-0	82	U 82	160	1000000	1
10132	2-Amino-4,6-Dinitrotoluene	35572-78-2	55	U 55	160	1000000	1
10132	2,6-Diamino-4-nitrotoluene	59229-75-3	110	U 110	330	1000000	1
10132	2,4-Diamino-6-nitrotoluene	6629-29-4	110	U 110	330	1000000	1
10132	1,3-Dinitrobenzene	99-65-0	55	U 55	160	1000000	1
10132	2,4-Dinitrotoluene	121-14-2	55	U 55	160	1000000	1
10132	2,6-Dinitrotoluene	606-20-2	55	U 55	160	1000000	1
10132	HMX	2691-41-0	140	U 140	410	1000000	1
10132	Nitrobenzene	98-95-3	55	U 55	160	1000000	1
10132	Nitroglycerin	55-63-0	1,100	U 1,100	3,300	1000000	1
10132	2-Nitrotoluene	88-72-2	110	U 110	160	1000000	1
10132	3-Nitrotoluene	99-08-1	140	U 140	160	1000000	1
10132	4-Nitrotoluene	99-99-0	110	U 110	160	1000000	1
10132	PETN	78-11-5	1,100	U 1,100	3,300	1000000	1
10132	RDX	121-82-4	68	U 68	160	1000000	1
10132	Tetryl	479-45-8	84	U 84	160	1000000	1

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**Sample Description:** SL-017-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-017-SA5B-SS-0.0-0.5

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CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Explosives</b>							
	<b>SW-846 8330A</b>		<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10132	1,3,5-Trinitrobenzene	99-35-4	55	U 55	160	1000000	1
10132	2,4,6-Trinitrotoluene	118-96-7	55	U 55	160	1000000	1
<b>Herbicides</b>							
	<b>SW-846 8151A</b>		<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10401	2,4-D	94-75-7	1.3	U 1.3	3.9		1
10401	Dalapon	75-99-0	4.8	U 4.8	9.8		1
10401	2,4-DB	94-82-6	0.68	U 0.68	1.9		1
10401	Dicamba	1918-00-9	0.44	U 0.44	1.3		1
10401	Dinoseb	88-85-7	0.87	U 0.87	2.6		1
10401	2,4-DP (Dichlorprop)	120-36-5	0.94	U 0.94	1.9		1
10401	MCPA	94-74-6	230	U 230	270		1
10401	MCPP (Mecoprop)	93-65-2	290	82	270		1
10401	2,4,5-T	93-76-5	0.090	U 0.090	0.19		1
10401	2,4,5-TP	93-72-1	0.082	U 0.082	0.19		1
The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported.							
Due to interfering peaks on the chromatogram, the values reported represent the lowest reporting limits attainable.							
<b>HPLC Organics</b>							
	<b>SW-846 8315A</b>		<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04173	17a Formaldehyde by 8315A	50-00-0	660	U 660	1,600		1
<b>Perchlorate</b>							
	<b>SW-846 6850 1/2007</b>		<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
06557	6a Perchlorate EPA 6850	14797-73-0	2.3	U 2.3	5.5		1
<b>Pesticides/PCBs</b>							
	<b>SW-846 8081A</b>		<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
01363	Aldrin	309-00-2	0.072	U 0.072	0.18		1
01363	Alpha BHC	319-84-6	0.037	U 0.037	0.18		1
01363	Beta BHC	319-85-7	0.066	U 0.066	0.18		1
01363	Gamma BHC - Lindane	58-89-9	0.037	U 0.037	0.18		1
01363	Chlordane	57-74-9	0.87	U 0.87	3.7		1
01363	p,p-DDD	72-54-8	0.072	U 0.072	0.37		1
01363	p,p-DDE	72-55-9	0.072	U 0.072	0.37		1
01363	p,p-DDT	50-29-3	0.14	U 0.14	0.37		1
01363	Delta BHC	319-86-8	0.039	U 0.039	0.18		1
01363	Dieldrin	60-57-1	0.072	U 0.072	0.37		1
01363	Endosulfan I	959-98-8	0.048	U 0.048	0.18		1
01363	Endosulfan II	33213-65-9	0.072	U 0.072	0.37		1
01363	Endosulfan Sulfate	1031-07-8	0.072	U 0.072	0.37		1
01363	Endrin	72-20-8	0.072	U 0.072	0.37		1
01363	Endrin Aldehyde	7421-93-4	0.072	U 0.072	0.37		1
01363	Endrin Ketone	53494-70-5	0.072	U 0.072	0.37		1
01363	Heptachlor	76-44-8	0.066	U 0.066	0.18		1
01363	Heptachlor Epoxide	1024-57-3	0.062	U 0.062	0.18		1
01363	Methoxychlor	72-43-5	0.37	U 0.37	1.8		1

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 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-017-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-017-SA5B-SS-0.0-0.5

LLI Sample # SW 6162864  
 LLI Group # 1225035  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 15:30

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3310 SDG#: DE033-10BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Pesticides/PCBs</b>		<b>SW-846 8081A</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
01363	Mirex	2385-85-5	0.072 U	0.072	0.37		1
01363	Toxaphene	8001-35-2	2.4 U	2.4	7.2		1

Various analytes in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported.

Due to interfering peaks on the chromatogram from the presence of PCBs, the values reported represent the lowest reporting limits attainable. Despite numerous cleanup methods, our usual reporting limits were not attained.

<b>Pesticides/PCBs</b>		<b>SW-846 8082</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.6	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.6	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.6	1
10225	PCB-1016	12674-11-2	0.36 U	0.36	1.9	1
10225	PCB-1221	11104-28-2	0.55 U	0.55	1.9	1
10225	PCB-1232	11141-16-5	0.57 U	0.57	1.9	1
10225	PCB-1242	53469-21-9	0.55 U	0.55	1.9	1
10225	PCB-1248	12672-29-6	0.36 U	0.36	1.9	1
10225	PCB-1254	11097-69-1	0.79 J	0.36	1.9	1
10225	PCB-1260	11096-82-5	0.89 J	0.36	1.9	1
10225	PCB-1262	37324-23-5	0.36 U	0.36	1.9	1
10225	PCB-1268	11100-14-4	0.36 U	0.36	1.9	1

The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.

<b>GC Extractable TPH</b>		<b>SW-846 8015B modified</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>
10199	EFH (C12-C14)	n.a.	0.44 U	0.44	1.3	1
10199	EFH (C15-C20)	n.a.	1.5 U	0.44	1.3	1
10199	EFH (C21-C30)	n.a.	14 U	0.44	1.3	1
10199	EFH (C30 - C40)	n.a.	37 U	0.44	1.3	1
10199	EFH (C8-C11)	n.a.	0.44 U	0.44	1.3	1

<b>GC Miscellaneous</b>		<b>SW-846 8015B</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>
10501	Ethanol	64-17-5	110 U	110	550	1
10501	Isopropanol	67-63-0	110 U	110	550	1
10501	Methanol	67-56-1	110 U	110	550	1

<b>GC Miscellaneous</b>		<b>SW-846 8015B modified</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>
08283	Diethylene glycol	111-46-6	5.5 U	5.5	14	1
08283	Ethylene glycol	107-21-1	5.5 U	5.5	14	1
08283	Propylene glycol	57-55-6	5.5 U	5.5	14	1

The sample was injected numerous times. Each time the responses for various analytes in the calibration check standard injected after the sample were outside the acceptance criteria. Therefore, this effect is attributed to the sample matrix and the data is reported.

\*=This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-017-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-017-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162864  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 15:30

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3310 SDG#: DE033-10BKG

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Terphenyls</b>			<b>mg/kg</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
10318	m-Terphenyl	92-06-8	1.6	U	1.6	3.8		1
10318	o-Terphenyl	84-15-1	1.6	U	1.6	3.8		1
10318	p-Terphenyl	92-94-4	1.6	U	1.6	3.8		1
<b>Metals</b>			<b>mg/kg</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
01643	Aluminum	7429-90-5	13,300		5.34	21.2		1
07914	Boron	7440-42-8	4.05	J	0.944	5.31		1
01650	Calcium	7440-70-2	4,940		6.50	21.2		1
01654	Iron	7439-89-6	18,500		5.00	21.2		1
01656	Lithium	7439-93-2	17.8		0.23	2.1		1
01657	Magnesium	7439-95-4	4,100		2.70	10.6		1
06958	Manganese	7439-96-5	234		0.0828	0.531		1
10145	Phosphorus	7723-14-0	445		0.594	10.6		1
01662	Potassium	7440-09-7	2,870		19.1	53.1		1
01667	Sodium	7440-23-5	105	J	39.6	106		1
07968	Strontium	7440-24-6	27.7		0.0658	0.531		1
06969	Tin	7440-31-5	2.17	J	1.06	10.6		1
06970	Titanium	7440-32-6	1,040		0.806	2.12		2
10146	Zirconium	7440-67-7	2.61	J	0.891	5.31		1
<b>SW-846 6020</b>			<b>mg/kg</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
06124	Antimony	7440-36-0	0.140	J	0.0649	0.216		2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.								
06125	Arsenic	7440-38-2	5.99		0.0649	0.433		2
06126	Barium	7440-39-3	109		0.117	0.433		2
06127	Beryllium	7440-41-7	0.662		0.0173	0.108		2
06128	Cadmium	7440-43-9	0.117		0.0390	0.108		2
06131	Chromium	7440-47-3	24.2		0.130	0.433		2
06132	Cobalt	7440-48-4	6.51		0.0216	0.108		2
06133	Copper	7440-50-8	11.0		0.0714	0.433		2
06135	Lead	7439-92-1	7.20		0.0113	0.216		2
06138	Molybdenum	7439-98-7	1.24		0.0541	0.108		2
06139	Nickel	7440-02-0	13.2		0.108	0.433		2
06141	Selenium	7782-49-2	0.190	J	0.0433	0.433		2
06142	Silver	7440-22-4	0.0385	J	0.0130	0.108		2
06145	Thallium	7440-28-0	0.284		0.0325	0.108		2
06148	Vanadium	7440-62-2	41.6		0.0238	0.108		2
06149	Zinc	7440-66-6	86.8		0.606	3.25		2
<b>SW-846 7471A</b>			<b>mg/kg</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
00159	Mercury	7439-97-6	0.0072	J	0.0031	0.107		1
<b>Wet Chemistry</b>			<b>mg/kg</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.8		0.87	1.1		1
07336	11a Anions by 300.0 - Nitrate	14797-55-8	1.9		0.87	1.6		1

\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.



# Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

**Sample Description:** SL-017-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-017-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162864  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 15:30  
 Submitted: 12/10/2010 09:15  
 Reported: 01/21/2011 15:50

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

E3310 SDG#: DE033-10BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Wet Chemistry EPA 314.0</b>							
10147	7a Perchlorate EPA 314.0	14797-73-0	9.8 U	ug/kg	ug/kg	ug/kg	1
<b>SW-846 7199</b>							
05892	3a Cr VI by EPA 7199	18540-29-9	0.22 U	mg/kg	mg/kg	mg/kg	1
<b>SW-846 9012B</b>							
05895	21a Cyanide by 9012B	57-12-5	0.19 U	mg/kg	mg/kg	mg/kg	1
<b>ASTM D1498</b>							
01821	Oxidation Reduction Potential	n.a.	453	mV	mV	mV	1
The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.							
<b>SW-846 9045C modified</b>							
00394	22a pH by 9045C	n.a.	8.46	Std. Units	Std. Units	Std. Units	1
<b>Wet Chemistry EPA 160.3 modified</b>							
11624	28a Moisture Content by 160.3	n.a.	8.5	%	%	%	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.							

### General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06192	1a Volatile Organics EPA 8260B	SW-846 8260B	1	B103481AA	12/14/2010 15:20	Nicholas R Rossi	0.9
10326	14a 1,4-Dioxane by 8260B SIM	SW-846 8260B SIM	1	E103492AA	12/15/2010 18:15	Jason M Long	21.19
08390	GC/MS - HL Encore Prep	SW-846 5035	1	201034723285	12/10/2010 19:56	Christopher D Meeks	n.a.
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035	1	201034823293	12/10/2010 20:00	Christopher D Meeks	n.a.
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035	2	201034823293	12/10/2010 20:01	Christopher D Meeks	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035	1	201034723285	12/10/2010 19:57	Christopher D Meeks	n.a.

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**Sample Description:** SL-017-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-017-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162864  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 15:30

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3310 SDG#: DE033-10BKG

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11622	19a NDMA by 1625C	EPA 1625C	1	10350SLF026	12/24/2010 20:50	Timothy J Trees	1
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10348SLG026	12/22/2010 08:57	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10349SLF026	12/20/2010 17:42	Chad A Moline	1
11630	NDMA Soil Microwave	SW-846 3546	1	10350SLF026	12/17/2010 01:00	Sherry L Morrow	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10349SLF026	12/16/2010 07:00	Joseph S Feister	1
00381	BNA Soil Sonication	SW-846 3550B	1	10348SLG026	12/15/2010 07:05	Joseph S Feister	1
05551	9a TPH by EPA 8015B Gas C5-C12	TPH GRO SW-846 8015B mod	1	10348A34A	12/15/2010 12:45	Marie D John	22.52
06130	GC - 5 g HL Encore Prep	SW-846 5035	1	201034723285	12/10/2010 19:57	Christopher D Meeks	n.a.
10132	20a Energetics by 8330A	SW-846 8330A	1	103510022A	12/21/2010 09:38	Michele D Hamilton	1
04173	17a Formaldehyde by 8315A	SW-846 8315A	1	103480008A	12/17/2010 18:40	Michele D Hamilton	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	103490014A	12/17/2010 22:29	John W Perkins	1
06557	6a Perchlorate EPA 6850	SW-846 6850 1/2007	1	103490017A	12/17/2010 15:59	Richard A Shober	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	103500011A	12/23/2010 19:39	Jamie L Brillhart	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	103540019A	12/23/2010 10:32	Lindsey K Lafferty	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	2	103500011A	12/16/2010 16:50	JoElla L Rice	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	2	103540019A	12/21/2010 02:00	Roman Kuropatkin	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	103490014A	12/16/2010 02:10	David V Hershey Jr	1
06568	Perchlorate Soil Prep	SW-846 6850 1/2007	1	103490017A	12/16/2010 09:10	Maria Davenport	1
05876	Formaldehyde Solid Extraction	SW-846 8315A	1	103480008A	12/14/2010 15:00	Kelli M Barto	1
11137	Energetics Extraction	SW-846 8330	1	103510022A	12/19/2010 17:00	Wanda F Oswald	1
10199	9a TPH by EPA 8015B Oil/Diesel	SW-846 8015B modified	1	103560020A	12/23/2010 18:03	Heather E Williams	1
10501	25a Alcohols by 8015B	SW-846 8015B	1	103480002A	12/14/2010 20:55	Dustin A Underkoffler	1
08283	27a Glycols by 8015B	SW-846 8015B modified	1	103480018A	12/15/2010 03:43	Robert Brown	1
10318	26a Terphenyls by 8015B	SW-846 8015B	1	103500031A	12/18/2010 04:17	Heather E Williams	1
11238	EFH Extraction - Soils	SW-846 3550B	2	103560020A	12/22/2010 18:00	Sally L Appleyard	1
10303	Terphenyls soil prep	SW-846 3550B	1	103500031A	12/17/2010 07:00	Kerrie A Freeburn	1
11551	Direct Inj. Solids Glycol Ext.	SW-846 8015B	1	103480018A	12/14/2010 13:00	Dustin A Underkoffler	1
00380	Direct Injection Solids Ext	SW-846 8015B	1	103480002A	12/14/2010 13:00	Dustin A Underkoffler	1
01643	Aluminum	SW-846 6010B	1	103495708002	12/16/2010 16:34	Eric L Eby	1
07914	Boron	SW-846 6010B	1	103495708002	12/16/2010 04:32	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	103495708002	12/16/2010 04:32	Tara L Snyder	1
01654	Iron	SW-846 6010B	1	103495708002	12/16/2010 04:32	Tara L Snyder	1

\*=This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.



# Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: SL-017-SA5B-SS-0.0-0.5 Soil  
SSFL Area IV Collocated Soil Sampling  
SL-017-SA5B-SS-0.0-0.5

LLI Sample # SW 6162864  
LLI Group # 1225035  
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 15:30

CDM Federal Programs Corp.  
14420 Albemarle Point Place  
Suite 210  
Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3310 SDG#: DE033-10BKG

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01656	Lithium	SW-846 6010B	1	103495708002	12/16/2010 04:32	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	103495708002	12/16/2010 04:32	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	103495708002	12/16/2010 04:32	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	103495708002	12/16/2010 04:32	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	103495708002	12/16/2010 04:32	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	103495708002	12/16/2010 04:32	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	103495708002	12/16/2010 04:32	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	103495708002	12/16/2010 04:32	Tara L Snyder	1
06970	Titanium	SW-846 6010B	1	103505708003	12/20/2010 16:29	John P Hook	2
10146	Zirconium	SW-846 6010B	1	103495708002	12/16/2010 04:32	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	103491026002A	12/17/2010 15:01	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103491026002A	12/17/2010 15:01	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103491026002D	12/17/2010 15:01	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103491026002A	12/17/2010 15:01	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103491026002A	12/17/2010 15:01	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103491026002A	12/17/2010 15:01	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103491026002A	12/17/2010 15:01	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103491026002A	12/17/2010 15:01	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103491026002A	12/17/2010 15:01	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103491026002C	12/17/2010 15:01	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103491026002A	12/17/2010 15:01	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103491026002B	12/17/2010 15:01	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103491026002A	12/17/2010 15:01	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103491026002A	12/17/2010 15:01	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103491026002A	12/17/2010 15:01	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	103491026002A	12/17/2010 15:01	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	103495711002	12/15/2010 19:55	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	103495708002	12/15/2010 10:35	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	103505708003	12/17/2010 19:17	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103491026002	12/15/2010 11:08	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	103495711002	12/15/2010 12:17	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10352352201A	12/20/2010 13:55	Ashley M Adams	1
07336	11a Anions by 300.0 - Nitrate	EPA 300.0	1	10352352201A	12/20/2010 13:55	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10356356201A	12/27/2010 15:02	Ashley M Adams	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	10356243201A	12/28/2010 20:27	Ashley M Adams	1
05895	21a Cyanide by 9012B	SW-846 9012B	1	10355102202A	12/21/2010 20:26	Joseph E McKenzie	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10352352201A	12/19/2010 16:30	Joseph E McKenzie	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10356356201A	12/22/2010 11:15	Nancy J Shoop	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	10355102202A	12/21/2010 15:35	Carolyn M Mastropietro	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10348182101B	12/14/2010 09:00	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10348039401B	12/14/2010 09:00	Michelle L Lalli	1

\*-This limit was used in the evaluation of the final result  
Shaded result = The results or reporting limit exceeded the client-provided action limit.



# Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

**Sample Description:** SL-017-SA5B-SS-0.0-0.5 Soil  
SSFL Area IV Collocated Soil Sampling  
SL-017-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162864  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 15:30

CDM Federal Programs Corp.  
14420 Albemarle Point Place  
Suite 210  
Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3310 SDG#: DE033-10BKG

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10356243201A	12/22/2010 20:10	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	1	10364162401B	12/31/2010 05:52	William C Schwebel	1

\*=This limit was used in the evaluation of the final result  
Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-017-SA5B-SS-0.0-0.5MS Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-017-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162865  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 15:30

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3310 SDG#: DE033-10MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles EPA 1625C</b>		<b>ng/kg</b>	<b>ng/kg</b>	<b>ng/kg</b>	<b>ng/kg</b>	
11622	N-Nitrosodimethylamine	62-75-9	855	18.2	36.4		1
<b>GC/MS</b>	<b>Semivolatiles SW-846 8270C</b>		<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04688	Acenaphthene	83-32-9	1,700	18	180		1
04688	Acenaphthylene	208-96-8	1,700	18	180		1
04688	Aniline	62-53-3	1,200	180	550		1
04688	Anthracene	120-12-7	1,700	18	180		1
04688	Benzidine	92-87-5	4,000	1,300	3,600		1
04688	Benzo(a)anthracene	56-55-3	1,800	18	180		1
04688	Benzo(a)pyrene	50-32-8	1,900	18	180		1
04688	Benzo(b)fluoranthene	205-99-2	2,100	18	180		1
04688	Benzo(g,h,i)perylene	191-24-2	2,000	18	180		1
04688	Benzo(k)fluoranthene	207-08-9	1,800	18	180		1
04688	Benzoic acid	65-85-0	710	180	550		1
04688	Benzyl alcohol	100-51-6	1,600	180	550		1
04688	4-Bromophenyl-phenylether	101-55-3	1,800	18	180		1
04688	Butylbenzylphthalate	85-68-7	2,000	18	180		1
04688	Di-n-butylphthalate	84-74-2	1,800	18	180		1
04688	Carbazole	86-74-8	1,700	18	180		1
04688	4-Chloro-3-methylphenol	59-50-7	1,600	36	180		1
04688	4-Chloroaniline	106-47-8	810	73	180		1
04688	bis(2-Chloroethoxy)methane	111-91-1	1,600	18	180		1
04688	bis(2-Chloroethyl)ether	111-44-4	1,600	18	180		1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	1,100	18	180		1
04688	2-Chloronaphthalene	91-58-7	1,400	18	180		1
04688	2-Chlorophenol	95-57-8	1,800	18	180		1
04688	4-Chlorophenyl-phenylether	7005-72-3	1,700	36	180		1
04688	Chrysene	218-01-9	1,800	18	180		1
04688	Dibenz(a,h)anthracene	53-70-3	2,000	18	180		1
04688	Dibenzofuran	132-64-9	1,700	18	180		1
04688	1,2-Dichlorobenzene	95-50-1	1,700	18	180		1
04688	1,3-Dichlorobenzene	541-73-1	1,600	18	180		1
04688	1,4-Dichlorobenzene	106-46-7	1,600	18	180		1
04688	3,3'-Dichlorobenzidine	91-94-1	1,400	110	360		1
04688	2,4-Dichlorophenol	120-83-2	1,700	18	180		1
04688	Diethylphthalate	84-66-2	1,700	18	180		1
04688	2,4-Dimethylphenol	105-67-9	1,700	36	180		1
04688	3,5-Dimethylphenol	108-68-9	1,900	36	180		1
04688	Dimethylphthalate	131-11-3	1,700	18	180		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	1,400	180	550		1
04688	2,4-Dinitrophenol	51-28-5	1,900	J 730	2,200		1
04688	2,4-Dinitrotoluene	121-14-2	1,600	36	180		1
04688	2,6-Dinitrotoluene	606-20-2	1,700	18	180		1
04688	1,2-Diphenylhydrazine	122-66-7	1,700	18	180		1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	2,000	18	360		1
04688	Fluoranthene	206-44-0	1,600	18	180		1
04688	Fluorene	86-73-7	1,700	18	180		1
04688	Hexachlorobenzene	118-74-1	1,800	18	180		1
04688	Hexachlorobutadiene	87-68-3	1,700	73	180		1

\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-017-SA5B-SS-0.0-0.5MS Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-017-SA5B-SS-0.0-0.5

LLI Sample # SW 6162865  
 LLI Group # 1225035  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 15:30

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3310 SDG#: DE033-10MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04688	Hexachlorocyclopentadiene	77-47-4	2,800	180	550		1
04688	Hexachloroethane	67-72-1	1,600	18	180		1
04688	Indeno(1,2,3-cd)pyrene	193-39-5	2,000	18	180		1
04688	Isophorone	78-59-1	1,500	18	180		1
04688	1-Methylnaphthalene	90-12-0	1,700	18	180		1
04688	2-Methylnaphthalene	91-57-6	1,600	18	180		1
04688	2-Methylphenol	95-48-7	1,600	36	180		1
04688	4-Methylphenol	106-44-5	1,500	36	180		1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.							
04688	Naphthalene	91-20-3	1,700	18	180		1
04688	2-Nitroaniline	88-74-4	1,700	18	180		1
04688	3-Nitroaniline	99-09-2	1,600	36	180		1
04688	4-Nitroaniline	100-01-6	1,200	73	180		1
04688	Nitrobenzene	98-95-3	1,500	18	180		1
04688	2-Nitrophenol	88-75-5	1,700	18	180		1
04688	4-Nitrophenol	100-02-7	1,100	180	550		1
04688	N-Nitrosodimethylamine	62-75-9	1,500	36	180		1
04688	N-Nitroso-di-n-propylamine	621-64-7	1,400	18	180		1
04688	N-Nitrosodiphenylamine	86-30-6	1,900	18	180		1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.							
04688	Di-n-octylphthalate	117-84-0	2,300	18	180		1
04688	Pentachlorophenol	87-86-5	1,300	180	550		1
04688	Phenanthrene	85-01-8	1,700	18	180		1
04688	Phenol	108-95-2	1,500	18	180		1
04688	Pyrene	129-00-0	1,900	18	180		1
04688	1,2,4-Trichlorobenzene	120-82-1	1,800	18	180		1
04688	2,4,5-Trichlorophenol	95-95-4	1,700	36	180		1
04688	2,4,6-Trichlorophenol	88-06-2	1,700	36	180		1

The LCS recovery is outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: bis(2-chloroisopropyl)ether

GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	ug/kg
10138	Acenaphthene	83-32-9	33	0.73	1.8	1
10138	Acenaphthylene	208-96-8	37	0.36	1.8	1
10138	Anthracene	120-12-7	37	0.36	1.8	1
10138	Benzo(a)anthracene	56-55-3	37	0.73	1.8	1
10138	Benzo(a)pyrene	50-32-8	37	0.73	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	47	0.73	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	13	0.73	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	41	0.73	1.8	1
10138	Butylbenzylphthalate	85-68-7	47	6.6	20	1
10138	Di-n-butylphthalate	84-74-2	44	6.6	20	1
10138	Chrysene	218-01-9	35	0.36	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	17	0.73	1.8	1

\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-017-SA5B-SS-0.0-0.5MS Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-017-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162865  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 15:30

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3310 SDG#: DE033-10MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C SIM</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10138	Diethylphthalate	84-66-2	38	6.6	20		1
10138	Dimethylphthalate	131-11-3	38	6.6	20		1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	56	6.6	20		1
10138	Fluoranthene	206-44-0	47	0.73	1.8		1
10138	Fluorene	86-73-7	37	0.73	1.8		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	16	0.73	1.8		1
10138	1-Methylnaphthalene	90-12-0	36	0.73	1.8		1
10138	2-Methylnaphthalene	91-57-6	32	0.73	1.8		1
10138	Naphthalene	91-20-3	30	0.73	1.8		1
10138	N-Nitrosodimethylamine	62-75-9	33	0.73	1.8		1
10138	Di-n-octylphthalate	117-84-0	57	6.6	20		1
10138	Phenanthrene	85-01-8	35	0.73	1.8		1
10138	Pyrene	129-00-0	37	0.73	1.8		1

Bis(2-ethylhexyl)phthalate was detected in the method blank at a concentration of 6.5 ug/kg. The blank value was not subtracted from the analytical result.

<b>Explosives</b>	<b>SW-846 8330A</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10132	4-Amino-2,6-Dinitrotoluene	19406-51-0	2,700	82	160	1000000 0
10132	2-Amino-4,6-Dinitrotoluene	35572-78-2	2,600	55	160	1000000 0
10132	2,6-Diamino-4-nitrotoluene	59229-75-3	110	U 110	330	1000000 0
10132	2,4-Diamino-6-nitrotoluene	6629-29-4	110	U 110	330	1000000 0
10132	1,3-Dinitrobenzene	99-65-0	2,700	55	160	1000000 0
10132	2,4-Dinitrotoluene	121-14-2	2,600	55	160	1000000 0
10132	2,6-Dinitrotoluene	606-20-2	2,700	55	160	1000000 0
10132	HMX	2691-41-0	2,300	140	410	1000000 0
10132	Nitrobenzene	98-95-3	2,700	55	160	1000000 0
10132	Nitroglycerin	55-63-0	56,000	1,100	3,300	1000000 0
10132	2-Nitrotoluene	88-72-2	2,800	110	160	1000000 0
10132	3-Nitrotoluene	99-08-1	2,800	140	160	1000000 0
10132	4-Nitrotoluene	99-99-0	2,800	110	160	1000000 0
10132	PETN	78-11-5	63,000	1,100	3,300	1000000 0
10132	RDX	121-82-4	2,500	68	160	1000000 0
10132	Tetryl	479-45-8	3,000	84	160	1000000 0

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**Sample Description:** SL-017-SA5B-SS-0.0-0.5MS Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-017-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162865  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 15:30

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3310 SDG#: DE033-10MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Explosives</b>							
<b>SW-846 8330A</b>			<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10132	1,3,5-Trinitrobenzene	99-35-4	3,000	55	160	1000000	1
10132	2,4,6-Trinitrotoluene	118-96-7	2,700	55	160	1000000	1
<b>Herbicides</b>							
<b>SW-846 8151A</b>			<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10401	2,4-D	94-75-7	8.7	1.3	3.9		1
10401	Dalapon	75-99-0	19	4.8	9.8		1
10401	2,4-DB	94-82-6	8.2	0.68	1.9		1
10401	Dicamba	1918-00-9	1.1	J 0.44	1.3		1
10401	Dinoseb	88-85-7	1.4	J 0.87	2.6		1
10401	2,4-DP (Dichlorprop)	120-36-5	11	0.87	1.9		1
10401	MCPA	94-74-6	870	83	270		1
10401	MCPP (Mecoprop)	93-65-2	820	82	270		1
10401	2,4,5-T	93-76-5	0.74	0.090	0.19		1
10401	2,4,5-TP	93-72-1	0.77	0.082	0.19		1
The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported.							
<b>HPLC Organics</b>							
<b>SW-846 8315A</b>			<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04173	17a Formaldehyde by	8315A 50-00-0	5,700	660	1,600		1
<b>Perchlorate</b>							
<b>SW-846 6850 1/2007</b>			<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
06557	6a Perchlorate EPA	6850 14797-73-0	110	2.3	5.5		1
<b>Pesticides/PCBs</b>							
<b>SW-846 8081A</b>			<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
01363	Aldrin	309-00-2	0.25	0.072	0.19		1
01363	Alpha BHC	319-84-6	0.38	0.037	0.19		1
01363	Beta BHC	319-85-7	0.31	0.066	0.19		1
01363	Gamma BHC - Lindane	58-89-9	0.36	0.037	0.19		1
01363	Chlordane	57-74-9	0.87	U 0.87	3.7		1
01363	p,p-DDD	72-54-8	0.67	0.072	0.37		1
01363	p,p-DDE	72-55-9	0.56	0.072	0.37		1
01363	p,p-DDT	50-29-3	0.82	0.072	0.37		1
01363	Delta BHC	319-86-8	0.31	0.039	0.19		1
01363	Dieldrin	60-57-1	0.70	0.072	0.37		1
01363	Endosulfan I	959-98-8	0.28	0.048	0.19		1
01363	Endosulfan II	33213-65-9	0.50	0.072	0.37		1
01363	Endosulfan Sulfate	1031-07-8	0.78	0.072	0.37		1
01363	Endrin	72-20-8	0.71	0.072	0.37		1
01363	Endrin Aldehyde	7421-93-4	0.50	0.072	0.37		1
01363	Endrin Ketone	53494-70-5	0.55	0.072	0.37		1
01363	Heptachlor	76-44-8	0.49	0.066	0.19		1
01363	Heptachlor Epoxide	1024-57-3	0.33	0.037	0.19		1
01363	Methoxychlor	72-43-5	4.0	0.37	1.8		1
01363	Mirex	2385-85-5	0.072	U 0.072	0.37		1
01363	Toxaphene	8001-35-2	2.4	U 2.4	7.2		1

Various analytes in the calibration check standards bracketing the sample were

\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-017-SA5B-SS-0.0-0.5MS Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-017-SA5B-SS-0.0-0.5

LLI Sample # SW 6162865  
 LLI Group # 1225035  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 15:30

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3310 SDG#: DE033-10MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported.							
<b>Pesticides/PCBs</b>		<b>SW-846 8082</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.6		1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.6		1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.6		1
10225	PCB-1016	12674-11-2	13	0.36	1.9		1
10225	PCB-1221	11104-28-2	0.55 U	0.55	1.9		1
10225	PCB-1232	11141-16-5	0.57 U	0.57	1.9		1
10225	PCB-1242	53469-21-9	0.55 U	0.55	1.9		1
10225	PCB-1248	12672-29-6	0.36 U	0.36	1.9		1
10225	PCB-1254	11097-69-1	0.36 U	0.36	1.9		1
10225	PCB-1260	11096-82-5	15	0.36	1.9		1
10225	PCB-1262	37324-23-5	0.36 U	0.36	1.9		1
10225	PCB-1268	11100-14-4	0.36 U	0.36	1.9		1
The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.							
<b>GC Extractable TPH</b>		<b>SW-846 8015B modified</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
10199	EFH (C12-C14)	n.a.	0.73 J	0.44	1.3		1
10199	EFH (C15-C20)	n.a.	2.5	0.44	1.3		1
10199	EFH (C21-C30)	n.a.	13	0.44	1.3		1
10199	EFH (C30 - C40)	n.a.	43	0.44	1.3		1
10199	EFH (C8-C11)	n.a.	0.60 J	0.44	1.3		1
<b>GC Miscellaneous</b>		<b>SW-846 8015B</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10501	Ethanol	64-17-5	2,200	110	550		1
10501	Isopropanol	67-63-0	2,100	110	550		1
10501	Methanol	67-56-1	2,500	110	550		1
<b>GC Miscellaneous</b>		<b>SW-846 8015B modified</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
08283	Diethylene glycol	111-46-6	180	5.5	14		1
08283	Ethylene glycol	107-21-1	170	5.5	14		1
08283	Propylene glycol	57-55-6	210	5.5	14		1
The sample was injected numerous times. Each time the responses for various analytes in the calibration check standard injected after the sample were outside the acceptance criteria. Therefore, this effect is attributed to the sample matrix and the data is reported.							
<b>Terphenyls</b>		<b>SW-846 8015B</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
10318	m-Terphenyl	92-06-8	1.8 J	1.6	3.8		1
10318	o-Terphenyl	84-15-1	1.9 J	1.6	3.8		1
10318	p-Terphenyl	92-94-4	1.7 J	1.6	3.8		1
<b>Metals</b>		<b>SW-846 6010B</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
01643	Aluminum	7429-90-5	14,900	5.29	21.0		1
07914	Boron	7440-42-8	195	0.935	5.25		1

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 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-017-SA5B-SS-0.0-0.5MS Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-017-SA5B-SS-0.0-0.5

LLI Sample # SW 6162865  
 LLI Group # 1225035  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 15:30

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3310 SDG#: DE033-10MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Metals</b>			<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
	<b>SW-846 6010B</b>						
01650	Calcium	7440-70-2	4,430	6.44	21.0		1
01654	Iron	7439-89-6	17,300	4.95	21.0		1
01656	Lithium	7439-93-2	120	0.23	2.1		1
01657	Magnesium	7439-95-4	3,990	2.67	10.5		1
06958	Manganese	7439-96-5	249	0.0820	0.525		1
10145	Phosphorus	7723-14-0	488	0.588	10.5		1
01662	Potassium	7440-09-7	3,620	18.9	52.5		1
01667	Sodium	7440-23-5	1,110	39.2	105		1
07968	Strontium	7440-24-6	127	0.0652	0.525		1
06969	Tin	7440-31-5	397	1.05	10.5		1
06970	Titanium	7440-32-6	1,400	0.831	2.19		2
10146	Zirconium	7440-67-7	108	0.883	5.25		1
<b>SW-846 6020</b>			<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
06124	Antimony	7440-36-0	0.689	0.0649	0.216		2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.							
06125	Arsenic	7440-38-2	7.39	0.0649	0.433		2
06126	Barium	7440-39-3	107	0.117	0.433		2
06127	Beryllium	7440-41-7	1.51	0.0173	0.108		2
06128	Cadmium	7440-43-9	1.49	0.0390	0.108		2
06131	Chromium	7440-47-3	38.0	0.130	0.433		2
06132	Cobalt	7440-48-4	71.0	0.0216	0.108		2
06133	Copper	7440-50-8	22.0	0.0714	0.433		2
06135	Lead	7439-92-1	9.86	0.0113	0.216		2
06138	Molybdenum	7439-98-7	14.6	0.0541	0.108		2
06139	Nickel	7440-02-0	25.5	0.108	0.433		2
06141	Selenium	7782-49-2	2.08	0.0433	0.433		2
06142	Silver	7440-22-4	13.8	0.0130	0.108		2
06145	Thallium	7440-28-0	0.808	0.0325	0.108		2
06148	Vanadium	7440-62-2	51.4	0.0238	0.108		2
06149	Zinc	7440-66-6	70.1	0.606	3.25		2
<b>SW-846 7471A</b>			<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
00159	Mercury	7439-97-6	0.183	0.0031	0.109		1
<b>Wet Chemistry</b>			<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
<b>EPA 300.0</b>							
07332	11a Anions by 300.0 - Fluoride	16984-48-8	12.5	0.87	1.1		1
07336	11a Anions by 300.0 - Nitrate	14797-55-8	12.2	0.87	1.6		1
<b>EPA 314.0</b>			<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10147	7a Perchlorate EPA 314.0	14797-73-0	548	9.8	32.8		1
<b>SW-846 7199</b>			<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
05892	3a Cr VI by EPA 7199	18540-29-9	38.9	1.1	5.5		5

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**Sample Description:** SL-017-SA5B-SS-0.0-0.5MS Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-017-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162865  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 15:30

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3310 SDG#: DE033-10MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Wet Chemistry</b>			<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
05895	21a Cyanide by 9012B	57-12-5	6.2	0.20	0.54		1
<b>Wet Chemistry</b>			<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>	
11625	28a Moisture Content by 160.3	n.a.	8.5	0.50	0.50		1

### General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
11622	19a NDMA by 1625C	EPA 1625C	1	10350SLF026	12/24/2010	21:07	Timothy J Trees	1
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10348SLG026	12/22/2010	09:23	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10349SLF026	12/20/2010	18:15	Chad A Moline	1
11630	NDMA Soil Microwave	SW-846 3546	1	10350SLF026	12/17/2010	01:00	Sherry L Morrow	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10349SLF026	12/16/2010	07:00	Joseph S Feister	1
00381	BNA Soil Sonication	SW-846 3550B	1	10348SLG026	12/15/2010	07:05	Joseph S Feister	1
10132	20a Energetics by 8330A	SW-846 8330A	1	103510022A	12/21/2010	10:20	Michele D Hamilton	1
04173	17a Formaldehyde by 8315A	SW-846 8315A	1	103480008A	12/17/2010	18:49	Michele D Hamilton	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	103490014A	12/17/2010	22:56	John W Perkins	1
06557	6a Perchlorate EPA 6850	SW-846 6850 1/2007	1	103490017A	12/17/2010	16:05	Richard A Shober	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	103500011A	12/23/2010	19:53	Jamie L Brillhart	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	103490013A	12/19/2010	10:29	Lindsey K Lafferty	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	2	103500011A	12/16/2010	16:50	JoElla L Rice	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	103490013A	12/15/2010	21:05	Karen L Beyer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	103490014A	12/16/2010	02:10	David V Hershey Jr	1
06568	Perchlorate Soil Prep	SW-846 6850 1/2007	1	103490017A	12/16/2010	09:10	Maria Davenport	1
05876	Formaldehyde Solid Extraction	SW-846 8315A	1	103480008A	12/14/2010	15:00	Kelli M Barto	1
11137	Energetics Extraction	SW-846 8330	1	103510022A	12/19/2010	17:00	Wanda F Oswald	1
10199	9a TPH by EPA 8015B Oil/Diesel	SW-846 8015B modified	1	103560020A	12/23/2010	18:28	Heather E Williams	1
10501	25a Alcohols by 8015B	SW-846 8015B	1	103480002A	12/14/2010	21:09	Dustin A Underkoffler	1

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Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-017-SA5B-SS-0.0-0.5MS Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-017-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162865  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 15:30

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3310 SDG#: DE033-10MS

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08283	27a Glycols by 8015B	SW-846 8015B modified	1	103480018A	12/15/2010 03:59	Robert Brown	1
10318	26a Terphenyls by 8015B	SW-846 8015B	1	103500031A	12/18/2010 05:02	Heather E Williams	1
11238	EFH Extraction - Soils	SW-846 3550B	2	103560020A	12/22/2010 18:00	Sally L Appleyard	1
10303	Terphenyls soil prep	SW-846 3550B	1	103500031A	12/17/2010 07:00	Kerrie A Freeburn	1
11551	Direct Inj. Solids Glycol Ext.	SW-846 8015B	1	103480018A	12/14/2010 13:00	Dustin A Underkoffler	1
00380	Direct Injection Solids Ext	SW-846 8015B	1	103480002A	12/14/2010 13:00	Dustin A Underkoffler	1
01643	Aluminum	SW-846 6010B	1	103495708002	12/16/2010 16:44	Eric L Eby	1
07914	Boron	SW-846 6010B	1	103495708002	12/16/2010 04:43	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	103495708002	12/16/2010 04:43	Tara L Snyder	1
01654	Iron	SW-846 6010B	1	103495708002	12/16/2010 04:43	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	103495708002	12/16/2010 04:43	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	103495708002	12/16/2010 04:43	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	103495708002	12/16/2010 04:43	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	103495708002	12/16/2010 04:43	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	103495708002	12/16/2010 04:43	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	103495708002	12/16/2010 04:43	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	103495708002	12/16/2010 04:43	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	103495708002	12/16/2010 04:43	Tara L Snyder	1
06970	Titanium	SW-846 6010B	1	103505708003	12/20/2010 16:39	John P Hook	2
10146	Zirconium	SW-846 6010B	1	103495708002	12/16/2010 04:43	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	103491026002A	12/17/2010 15:10	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103491026002A	12/17/2010 15:10	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103491026002D	12/17/2010 15:10	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103491026002A	12/17/2010 15:10	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103491026002A	12/17/2010 15:10	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103491026002A	12/17/2010 15:10	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103491026002A	12/17/2010 15:10	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103491026002A	12/17/2010 15:10	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103491026002A	12/17/2010 15:10	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103491026002C	12/17/2010 15:10	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103491026002A	12/17/2010 15:10	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103491026002B	12/17/2010 15:10	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103491026002A	12/17/2010 15:10	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103491026002A	12/17/2010 15:10	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103491026002A	12/17/2010 15:10	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	103491026002A	12/17/2010 15:10	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	103495711002	12/15/2010 19:57	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	103495708002	12/15/2010 10:35	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	103505708003	12/17/2010 19:17	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103491026002	12/15/2010 11:08	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	103495711002	12/15/2010 12:17	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10352352201A	12/20/2010 14:25	Ashley M Adams	1

\*—This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-017-SA5B-SS-0.0-0.5MS Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-017-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162865  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 15:30

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3310 SDG#: DE033-10MS

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07336	11a Anions by 300.0 - Nitrate	EPA 300.0	1	10352352201A	12/20/2010 14:25	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10356356201A	12/27/2010 15:50	Ashley M Adams	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	10356243201A	12/28/2010 20:46	Ashley M Adams	5
05895	21a Cyanide by 9012B	SW-846 9012B	1	10355102202A	12/21/2010 20:27	Joseph E McKenzie	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10352352201A	12/19/2010 16:30	Joseph E McKenzie	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10356356201A	12/22/2010 11:15	Nancy J Shoop	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	10355102202A	12/21/2010 15:35	Carolyn M Mastropietro	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10356243201A	12/22/2010 20:10	Daniel S Smith	1
11625	28a Moisture Content by 160.3	EPA 160.3 modified	1	10364162401B	12/31/2010 05:52	William C Schwebel	1

\*=This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.



# Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

**Sample Description:** SL-017-SA5B-SS-0.0-0.5MSD Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-017-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162866  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 15:30  
 Submitted: 12/10/2010 09:15  
 Reported: 01/21/2011 15:50

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

E3310 SDG#: DE033-10MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles EPA 1625C</b>		<b>ng/kg</b>	<b>ng/kg</b>	<b>ng/kg</b>	<b>ng/kg</b>	
11622	N-Nitrosodimethylamine	62-75-9	872	18.2	36.4		1
<b>GC/MS</b>	<b>Semivolatiles SW-846 8270C</b>		<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04688	Acenaphthene	83-32-9	1,700	18	180		1
04688	Acenaphthylene	208-96-8	1,800	18	180		1
04688	Aniline	62-53-3	1,300	180	550		1
04688	Anthracene	120-12-7	1,800	18	180		1
04688	Benzidine	92-87-5	4,400	1,300	3,600		1
04688	Benzo(a)anthracene	56-55-3	1,900	18	180		1
04688	Benzo(a)pyrene	50-32-8	2,000	18	180		1
04688	Benzo(b)fluoranthene	205-99-2	1,900	18	180		1
04688	Benzo(g,h,i)perylene	191-24-2	2,000	18	180		1
04688	Benzo(k)fluoranthene	207-08-9	2,100	18	180		1
04688	Benzoic acid	65-85-0	630	180	550		1
04688	Benzyl alcohol	100-51-6	1,600	180	550		1
04688	4-Bromophenyl-phenylether	101-55-3	1,800	18	180		1
04688	Butylbenzylphthalate	85-68-7	2,000	18	180		1
04688	Di-n-butylphthalate	84-74-2	1,900	18	180		1
04688	Carbazole	86-74-8	1,700	18	180		1
04688	4-Chloro-3-methylphenol	59-50-7	1,600	36	180		1
04688	4-Chloroaniline	106-47-8	780	73	180		1
04688	bis(2-Chloroethoxy)methane	111-91-1	1,600	18	180		1
04688	bis(2-Chloroethyl)ether	111-44-4	1,600	18	180		1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	1,100	18	180		1
04688	2-Chloronaphthalene	91-58-7	2,000	18	180		1
04688	2-Chlorophenol	95-57-8	1,700	18	180		1
04688	4-Chlorophenyl-phenylether	7005-72-3	1,800	36	180		1
04688	Chrysene	218-01-9	1,800	18	180		1
04688	Dibenz(a,h)anthracene	53-70-3	2,000	18	180		1
04688	Dibenzofuran	132-64-9	1,800	18	180		1
04688	1,2-Dichlorobenzene	95-50-1	1,600	18	180		1
04688	1,3-Dichlorobenzene	541-73-1	1,600	18	180		1
04688	1,4-Dichlorobenzene	106-46-7	1,600	18	180		1
04688	3,3'-Dichlorobenzidine	91-94-1	1,400	110	360		1
04688	2,4-Dichlorophenol	120-83-2	1,700	18	180		1
04688	Diethylphthalate	84-66-2	1,700	18	180		1
04688	2,4-Dimethylphenol	105-67-9	1,600	36	180		1
04688	3,5-Dimethylphenol	108-68-9	1,900	36	180		1
04688	Dimethylphthalate	131-11-3	1,700	18	180		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	1,300	180	550		1
04688	2,4-Dinitrophenol	51-28-5	1,700	J 730	2,200		1
04688	2,4-Dinitrotoluene	121-14-2	1,600	36	180		1
04688	2,6-Dinitrotoluene	606-20-2	1,700	18	180		1
04688	1,2-Diphenylhydrazine	122-66-7	1,700	18	180		1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	2,100	18	360		1
04688	Fluoranthene	206-44-0	1,700	18	180		1
04688	Fluorene	86-73-7	1,700	18	180		1
04688	Hexachlorobenzene	118-74-1	1,900	18	180		1
04688	Hexachlorobutadiene	87-68-3	1,700	73	180		1

\*=This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-017-SA5B-SS-0.0-0.5MSD Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-017-SA5B-SS-0.0-0.5

LLI Sample # SW 6162866  
 LLI Group # 1225035  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 15:30

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3310 SDG#: DE033-10MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04688	Hexachlorocyclopentadiene	77-47-4	2,600	180	550		1
04688	Hexachloroethane	67-72-1	1,600	18	180		1
04688	Indeno(1,2,3-cd)pyrene	193-39-5	2,000	18	180		1
04688	Isophorone	78-59-1	1,500	18	180		1
04688	1-Methylnaphthalene	90-12-0	1,700	18	180		1
04688	2-Methylnaphthalene	91-57-6	1,600	18	180		1
04688	2-Methylphenol	95-48-7	1,600	36	180		1
04688	4-Methylphenol	106-44-5	1,500	36	180		1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.							
04688	Naphthalene	91-20-3	1,700	18	180		1
04688	2-Nitroaniline	88-74-4	1,800	18	180		1
04688	3-Nitroaniline	99-09-2	1,600	36	180		1
04688	4-Nitroaniline	100-01-6	1,200	73	180		1
04688	Nitrobenzene	98-95-3	1,500	18	180		1
04688	2-Nitrophenol	88-75-5	1,700	18	180		1
04688	4-Nitrophenol	100-02-7	1,200	180	550		1
04688	N-Nitrosodimethylamine	62-75-9	1,400	36	180		1
04688	N-Nitroso-di-n-propylamine	621-64-7	1,300	18	180		1
04688	N-Nitrosodiphenylamine	86-30-6	1,900	18	180		1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.							
04688	Di-n-octylphthalate	117-84-0	2,300	18	180		1
04688	Pentachlorophenol	87-86-5	1,500	180	550		1
04688	Phenanthrene	85-01-8	1,700	18	180		1
04688	Phenol	108-95-2	1,400	18	180		1
04688	Pyrene	129-00-0	1,900	18	180		1
04688	1,2,4-Trichlorobenzene	120-82-1	1,700	18	180		1
04688	2,4,5-Trichlorophenol	95-95-4	1,700	36	180		1
04688	2,4,6-Trichlorophenol	88-06-2	1,900	36	180		1

The LCS recovery is outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: bis(2-chloroisopropyl)ether

GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	ug/kg
10138	Acenaphthene	83-32-9	35	0.73	1.8	1
10138	Acenaphthylene	208-96-8	37	0.36	1.8	1
10138	Anthracene	120-12-7	37	0.36	1.8	1
10138	Benzo(a)anthracene	56-55-3	38	0.73	1.8	1
10138	Benzo(a)pyrene	50-32-8	37	0.73	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	46	0.73	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	15	0.73	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	42	0.73	1.8	1
10138	Butylbenzylphthalate	85-68-7	47	6.6	20	1
10138	Di-n-butylphthalate	84-74-2	40	6.6	20	1
10138	Chrysene	218-01-9	35	0.36	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	18	0.73	1.8	1

\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-017-SA5B-SS-0.0-0.5MSD Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-017-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162866  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 15:30

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3310 SDG#: DE033-10MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C SIM</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10138	Diethylphthalate	84-66-2	39	6.6	20		1
10138	Dimethylphthalate	131-11-3	40	6.6	20		1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	66	6.6	20		1
10138	Fluoranthene	206-44-0	41	0.73	1.8		1
10138	Fluorene	86-73-7	38	0.73	1.8		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	17	0.73	1.8		1
10138	1-Methylnaphthalene	90-12-0	36	0.73	1.8		1
10138	2-Methylnaphthalene	91-57-6	32	0.73	1.8		1
10138	Naphthalene	91-20-3	34	0.73	1.8		1
10138	N-Nitrosodimethylamine	62-75-9	40	0.73	1.8		1
10138	Di-n-octylphthalate	117-84-0	74	6.6	20		1
10138	Phenanthrene	85-01-8	35	0.73	1.8		1
10138	Pyrene	129-00-0	38	0.73	1.8		1

Bis(2-ethylhexyl)phthalate was detected in the method blank at a concentration of 6.5 ug/kg. The blank value was not subtracted from the analytical result.

The GC/MS semivolatile internal standard peak areas were outside of QC limits. The background and matrix spike samples were analyzed and internal standard peak areas were again low but within QC limits, indicating a matrix effect.

<b>Explosives</b>	<b>SW-846 8330A</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>
10132	4-Amino-2,6-Dinitrotoluene	19406-51-0	2,800	82	160
10132	2-Amino-4,6-Dinitrotoluene	35572-78-2	2,800	55	160
10132	2,6-Diamino-4-nitrotoluene	59229-75-3	110	U 110	330
10132	2,4-Diamino-6-nitrotoluene	6629-29-4	110	U 110	330
10132	1,3-Dinitrobenzene	99-65-0	2,800	55	160
10132	2,4-Dinitrotoluene	121-14-2	2,700	55	160
10132	2,6-Dinitrotoluene	606-20-2	2,800	55	160
10132	HMX	2691-41-0	2,400	140	410
10132	Nitrobenzene	98-95-3	2,800	55	160
10132	Nitroglycerin	55-63-0	59,000	1,100	3,300
10132	2-Nitrotoluene	88-72-2	2,900	110	160
10132	3-Nitrotoluene	99-08-1	2,900	140	160
10132	4-Nitrotoluene	99-99-0	2,900	110	160
10132	PETN	78-11-5	67,000	1,100	3,300

\*—This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-017-SA5B-SS-0.0-0.5MSD Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-017-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162866  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 15:30

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3310 SDG#: DE033-10MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Explosives</b>							
		<b>SW-846 8330A</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10132	RDX	121-82-4	2,600	68	160	1000000	1
10132	Tetryl	479-45-8	3,100	84	160	1000000	1
10132	1,3,5-Trinitrobenzene	99-35-4	3,400	55	160	1000000	1
10132	2,4,6-Trinitrotoluene	118-96-7	2,800	55	160	1000000	1
<b>Herbicides</b>							
		<b>SW-846 8151A</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10401	2,4-D	94-75-7	8.8	1.3	3.9		1
10401	Dalapon	75-99-0	17	4.8	9.8		1
10401	2,4-DB	94-82-6	11	0.68	1.9		1
10401	Dicamba	1918-00-9	1.2	J 0.44	1.3		1
10401	Dinoseb	88-85-7	1.8	J 0.87	2.6		1
10401	2,4-DP (Dichlorprop)	120-36-5	11	0.87	1.9		1
10401	MCPA	94-74-6	1,100	83	270		1
10401	MCPP (Mecoprop)	93-65-2	1,300	82	270		1
10401	2,4,5-T	93-76-5	0.79	0.090	0.19		1
10401	2,4,5-TP	93-72-1	0.81	0.082	0.19		1
The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported.							
<b>HPLC Organics</b>							
		<b>SW-846 8315A</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04173	17a Formaldehyde by	8315A 50-00-0	5,300	660	1,600		1
<b>Perchlorate</b>							
		<b>SW-846 6850 1/2007</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
06557	6a Perchlorate EPA	6850 14797-73-0	120	2.3	5.5		1
<b>Pesticides/PCBs</b>							
		<b>SW-846 8081A</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
01363	Aldrin	309-00-2	0.24	0.072	0.19		1
01363	Alpha BHC	319-84-6	0.34	0.037	0.19		1
01363	Beta BHC	319-85-7	0.30	0.066	0.19		1
01363	Gamma BHC - Lindane	58-89-9	0.34	0.037	0.19		1
01363	Chlordane	57-74-9	0.87	U 0.87	3.7		1
01363	p,p-DDD	72-54-8	0.66	0.072	0.37		1
01363	p,p-DDE	72-55-9	0.54	0.072	0.37		1
01363	p,p-DDT	50-29-3	0.79	0.072	0.37		1
01363	Delta BHC	319-86-8	0.28	0.039	0.19		1
01363	Dieldrin	60-57-1	0.67	0.072	0.37		1
01363	Endosulfan I	959-98-8	0.28	0.048	0.19		1
01363	Endosulfan II	33213-65-9	0.50	0.072	0.37		1
01363	Endosulfan Sulfate	1031-07-8	0.68	0.072	0.37		1
01363	Endrin	72-20-8	0.67	0.072	0.37		1
01363	Endrin Aldehyde	7421-93-4	0.44	0.072	0.37		1
01363	Endrin Ketone	53494-70-5	0.54	0.072	0.37		1
01363	Heptachlor	76-44-8	0.47	0.066	0.19		1
01363	Heptachlor Epoxide	1024-57-3	0.33	0.037	0.19		1

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 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-017-SA5B-SS-0.0-0.5MSD Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-017-SA5B-SS-0.0-0.5

LLI Sample # SW 6162866  
 LLI Group # 1225035  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 15:30

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3310 SDG#: DE033-10MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Pesticides/PCBs</b>		<b>SW-846 8081A</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
01363	Methoxychlor	72-43-5	3.9	0.37	1.8		1
01363	Mirex	2385-85-5	0.072 U	0.072	0.37		1
01363	Toxaphene	8001-35-2	2.4 U	2.4	7.2		1

Various analytes in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported.

<b>Pesticides/PCBs</b>		<b>SW-846 8082</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.6		1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.6		1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.6		1
10225	PCB-1016	12674-11-2	17	0.36	1.9		1
10225	PCB-1221	11104-28-2	0.55 U	0.55	1.9		1
10225	PCB-1232	11141-16-5	0.57 U	0.57	1.9		1
10225	PCB-1242	53469-21-9	0.55 U	0.55	1.9		1
10225	PCB-1248	12672-29-6	0.36 U	0.36	1.9		1
10225	PCB-1254	11097-69-1	0.36 U	0.36	1.9		1
10225	PCB-1260	11096-82-5	15	0.36	1.9		1
10225	PCB-1262	37324-23-5	0.36 U	0.36	1.9		1
10225	PCB-1268	11100-14-4	0.36 U	0.36	1.9		1

The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.

<b>GC Extractable TPH</b>		<b>SW-846 8015B modified</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
10199	EFH (C12-C14)	n.a.	0.71 J	0.44	1.3		1
10199	EFH (C15-C20)	n.a.	2.5	0.44	1.3		1
10199	EFH (C21-C30)	n.a.	9.2	0.44	1.3		1
10199	EFH (C30 - C40)	n.a.	27	0.44	1.3		1
10199	EFH (C8-C11)	n.a.	0.61 J	0.44	1.3		1

<b>GC Miscellaneous</b>		<b>SW-846 8015B</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10501	Ethanol	64-17-5	2,200	110	550		1
10501	Isopropanol	67-63-0	2,100	110	550		1
10501	Methanol	67-56-1	2,500	110	550		1

<b>GC Miscellaneous</b>		<b>SW-846 8015B modified</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
08283	Diethylene glycol	111-46-6	190	5.5	14		1
08283	Ethylene glycol	107-21-1	160	5.5	14		1
08283	Propylene glycol	57-55-6	200	5.5	14		1

The sample was injected numerous times. Each time the responses for various analytes in the calibration check standard injected after the sample were outside the acceptance criteria. Therefore, this effect is attributed to the sample matrix and the data is reported.

<b>Terphenyls</b>		<b>SW-846 8015B</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
10318	m-Terphenyl	92-06-8	1.8 J	1.6	3.8		1

\*=This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-017-SA5B-SS-0.0-0.5MSD Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-017-SA5B-SS-0.0-0.5

LLI Sample # SW 6162866  
 LLI Group # 1225035  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 15:30

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3310 SDG#: DE033-10MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Terphenyls</b>							
		<b>SW-846 8015B</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
10318	o-Terphenyl	84-15-1	1.9 J	1.6	3.8		1
10318	p-Terphenyl	92-94-4	1.7 J	1.6	3.8		1
<b>Metals</b>							
		<b>SW-846 6010B</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
01643	Aluminum	7429-90-5	16,300	5.50	21.9		1
07914	Boron	7440-42-8	199	0.973	5.46		1
01650	Calcium	7440-70-2	6,180	6.70	21.9		1
01654	Iron	7439-89-6	21,000	5.15	21.9		1
01656	Lithium	7439-93-2	127	0.24	2.2		1
01657	Magnesium	7439-95-4	4,730	2.78	10.9		1
06958	Manganese	7439-96-5	270	0.0852	0.546		1
10145	Phosphorus	7723-14-0	556	0.612	10.9		1
01662	Potassium	7440-09-7	4,190	19.7	54.6		1
01667	Sodium	7440-23-5	1,170	40.8	109		1
07968	Strontium	7440-24-6	131	0.0678	0.546		1
06969	Tin	7440-31-5	406	1.09	10.9		1
06970	Titanium	7440-32-6	1,350	0.814	2.14		2
10146	Zirconium	7440-67-7	110	0.918	5.46		1
		<b>SW-846 6020</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
06124	Antimony	7440-36-0	0.405	0.0631	0.210		2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	7.84	0.0631	0.420		2
06126	Barium	7440-39-3	158	0.113	0.420		2
06127	Beryllium	7440-41-7	1.59	0.0168	0.105		2
06128	Cadmium	7440-43-9	1.69	0.0378	0.105		2
06131	Chromium	7440-47-3	40.1	0.126	0.420		2
06132	Cobalt	7440-48-4	72.2	0.0210	0.105		2
06133	Copper	7440-50-8	22.9	0.0694	0.420		2
06135	Lead	7439-92-1	11.2	0.0109	0.210		2
06138	Molybdenum	7439-98-7	15.4	0.0525	0.105		2
06139	Nickel	7440-02-0	26.8	0.105	0.420		2
06141	Selenium	7782-49-2	3.03	0.0420	0.420		2
06142	Silver	7440-22-4	14.6	0.0126	0.105		2
06145	Thallium	7440-28-0	0.891	0.0315	0.105		2
06148	Vanadium	7440-62-2	57.3	0.0231	0.105		2
06149	Zinc	7440-66-6	82.1	0.588	3.15		2
		<b>SW-846 7471A</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
00159	Mercury	7439-97-6	0.178	0.0031	0.109		1
<b>Wet Chemistry</b>							
		<b>EPA 160.3 modified</b>	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>	
11625	28a Moisture Content by 160.3	n.a.	8.5	0.50	0.50		1

\*=This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-017-SA5B-SS-0.0-0.5MSD Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-017-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162866  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 15:30  
 Submitted: 12/10/2010 09:15  
 Reported: 01/21/2011 15:50

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

E3310 SDG#: DE033-10MSD

### General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
11622	19a NDMA by 1625C	EPA 1625C	1	10350SLF026	12/24/2010	21:25	Timothy J Trees	1
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10348SLG026	12/22/2010	09:49	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10349SLF026	12/20/2010	18:48	Chad A Moline	1
11630	NDMA Soil Microwave	SW-846 3546	1	10350SLF026	12/17/2010	01:00	Sherry L Morrow	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10349SLF026	12/16/2010	07:00	Joseph S Feister	1
00381	BNA Soil Sonication	SW-846 3550B	1	10348SLG026	12/15/2010	07:05	Joseph S Feister	1
10132	20a Energetics by 8330A	SW-846 8330A	1	103510022A	12/21/2010	11:02	Michele D Hamilton	1
04173	17a Formaldehyde by 8315A	SW-846 8315A	1	103480008A	12/17/2010	18:59	Michele D Hamilton	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	103490014A	12/17/2010	23:24	John W Perkins	1
06557	6a Perchlorate EPA 6850	SW-846 6850 1/2007	1	103490017A	12/17/2010	16:12	Richard A Shober	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	103500011A	12/23/2010	20:08	Jamie L Brillhart	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	103490013A	12/19/2010	10:47	Lindsey K Lafferty	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	2	103500011A	12/16/2010	16:50	JoElla L Rice	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	103490013A	12/15/2010	21:05	Karen L Beyer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	103490014A	12/16/2010	02:10	David V Hershey Jr	1
06568	Perchlorate Soil Prep	SW-846 6850 1/2007	1	103490017A	12/16/2010	09:10	Maria Davenport	1
05876	Formaldehyde Solid Extraction	SW-846 8315A	1	103480008A	12/14/2010	15:00	Kelli M Barto	1
11137	Energetics Extraction	SW-846 8330	1	103510022A	12/19/2010	17:00	Wanda F Oswald	1
10199	9a TPH by EPA 8015B Oil/Diesel	SW-846 8015B modified	1	103560020A	12/23/2010	18:53	Heather E Williams	1
10501	25a Alcohols by 8015B	SW-846 8015B	1	103480002A	12/14/2010	21:24	Dustin A Underkoffler	1
08283	27a Glycols by 8015B	SW-846 8015B modified	1	103480018A	12/15/2010	04:15	Robert Brown	1
10318	26a Terphenyls by 8015B	SW-846 8015B	1	103500031A	12/18/2010	05:47	Heather E Williams	1
11238	EFH Extraction - Soils	SW-846 3550B	2	103560020A	12/22/2010	18:00	Sally L Appleyard	1
10303	Terphenyls soil prep	SW-846 3550B	1	103500031A	12/17/2010	07:00	Kerrie A Freeburn	1
11551	Direct Inj. Solids Glycol Ext.	SW-846 8015B	1	103480018A	12/14/2010	13:00	Dustin A Underkoffler	1
00380	Direct Injection Solids Ext	SW-846 8015B	1	103480002A	12/14/2010	13:00	Dustin A Underkoffler	1
01643	Aluminum	SW-846 6010B	1	103495708002	12/16/2010	16:48	Eric L Eby	1

\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-017-SA5B-SS-0.0-0.5MSD Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-017-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162866  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 15:30

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3310 SDG#: DE033-10MSD

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis		Analyst	Dilution Factor
					Date	Time		
07914	Boron	SW-846 6010B	1	103495708002	12/16/2010	04:47	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	103495708002	12/16/2010	04:47	Tara L Snyder	1
01654	Iron	SW-846 6010B	1	103495708002	12/16/2010	04:47	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	103495708002	12/16/2010	04:47	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	103495708002	12/16/2010	04:47	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	103495708002	12/16/2010	04:47	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	103495708002	12/16/2010	04:47	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	103495708002	12/16/2010	04:47	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	103495708002	12/16/2010	04:47	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	103495708002	12/16/2010	04:47	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	103495708002	12/16/2010	04:47	Tara L Snyder	1
06970	Titanium	SW-846 6010B	1	103505708003	12/20/2010	16:43	John P Hook	2
10146	Zirconium	SW-846 6010B	1	103495708002	12/16/2010	04:47	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	103491026002A	12/21/2010	18:07	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103491026002A	12/17/2010	15:13	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103491026002D	12/17/2010	15:13	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103491026002A	12/17/2010	15:13	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103491026002A	12/17/2010	15:13	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103491026002A	12/17/2010	15:13	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103491026002A	12/17/2010	15:13	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103491026002A	12/17/2010	15:13	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103491026002A	12/17/2010	15:13	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103491026002C	12/17/2010	15:13	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103491026002A	12/17/2010	15:13	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103491026002B	12/17/2010	15:13	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103491026002A	12/17/2010	15:13	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103491026002A	12/17/2010	15:13	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103491026002A	12/17/2010	15:13	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	103491026002A	12/17/2010	15:13	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	103495711002	12/15/2010	19:58	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	103495708002	12/15/2010	10:35	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	103505708003	12/17/2010	19:17	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103491026002	12/15/2010	11:08	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	103495711002	12/15/2010	12:17	James L Mertz	1
11625	28a Moisture Content by 160.3	EPA 160.3 modified	1	10364162401B	12/31/2010	05:52	William C Schwebel	1

\*—This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-017-SA5B-SS-0.0-0.5DUP Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-017-SA5B-SS-0.0-0.5

LLI Sample # SW 6162867  
 LLI Group # 1225035  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 15:30

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3310 SDG#: DE033-10DUP

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Metals</b>							
	<b>SW-846 6010B</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
01643	Aluminum	7429-90-5	12,900	5.50	21.9		1
07914	Boron	7440-42-8	3.04 J	0.973	5.46		1
01650	Calcium	7440-70-2	5,150	6.70	21.9		1
01654	Iron	7439-89-6	19,200	5.15	21.9		1
01656	Lithium	7439-93-2	18.6	0.24	2.2		1
01657	Magnesium	7439-95-4	4,330	2.78	10.9		1
06958	Manganese	7439-96-5	271	0.0852	0.546		1
10145	Phosphorus	7723-14-0	503	0.612	10.9		1
01662	Potassium	7440-09-7	2,880	19.7	54.6		1
01667	Sodium	7440-23-5	112	40.8	109		1
07968	Strontium	7440-24-6	26.9	0.0678	0.546		1
06969	Tin	7440-31-5	2.06 J	1.09	10.9		1
06970	Titanium	7440-32-6	1,050	0.806	2.12		2
10146	Zirconium	7440-67-7	2.92 J	0.918	5.46		1
	<b>SW-846 6020</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
06124	Antimony	7440-36-0	0.0837 J	0.0649	0.216		2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	4.33	0.0649	0.433		2
06126	Barium	7440-39-3	84.1	0.117	0.433		2
06127	Beryllium	7440-41-7	0.432	0.0173	0.108		2
06128	Cadmium	7440-43-9	0.119	0.0390	0.108		2
06131	Chromium	7440-47-3	18.5	0.130	0.433		2
06132	Cobalt	7440-48-4	5.13	0.0216	0.108		2
06133	Copper	7440-50-8	8.32	0.0714	0.433		2
06135	Lead	7439-92-1	5.62	0.0113	0.216		2
06138	Molybdenum	7439-98-7	1.04	0.0541	0.108		2
06139	Nickel	7440-02-0	11.0	0.108	0.433		2
06141	Selenium	7782-49-2	0.160 J	0.0433	0.433		2
06142	Silver	7440-22-4	0.0213 J	0.0130	0.108		2
06145	Thallium	7440-28-0	0.210	0.0325	0.108		2
06148	Vanadium	7440-62-2	31.1	0.0238	0.108		2
06149	Zinc	7440-66-6	57.7	0.606	3.25		2
	<b>SW-846 7471A</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
00159	Mercury	7439-97-6	0.0117 J	0.0030	0.103		1
<b>Wet Chemistry</b>							
	<b>EPA 300.0</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.4	0.87	1.1		1
07336	11a Anions by 300.0 - Nitrate	14797-55-8	1.7	0.87	1.6		1
	<b>EPA 314.0</b>		<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.8 U	9.8	32.8		1
	<b>SW-846 7199</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
05892	3a Cr VI by EPA 7199	18540-29-9	0.53 J	0.22	1.1		1

\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-017-SA5B-SS-0.0-0.5DUP Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-017-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162867  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 15:30

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3310 SDG#: DE033-10DUP

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Wet Chemistry</b>							
		<b>SW-846 9012B</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
05895	21a Cyanide by 9012B	57-12-5	0.19 U	0.19	0.54		1
		<b>ASTM D1498</b>	<b>mV</b>	<b>mV</b>	<b>mV</b>	<b>mV</b>	
01821	Oxidation Reduction Potential	n.a.	454	10.0	10.0		1
	The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.						
		<b>SW-846 9045C modified</b>	<b>Std. Units</b>	<b>Std. Units</b>	<b>Std. Units</b>	<b>Std. Units</b>	
00394	22a pH by 9045C	n.a.	8.50	0.0100	0.0100		1
<b>Wet Chemistry</b>							
		<b>EPA 160.3 modified</b>	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>	
11625	28a Moisture Content by 160.3	n.a.	8.5	0.50	0.50		1
11626	28a Moisture Content by 160.3	n.a.	8.6	0.50	0.50		1
	The duplicate moisture value is provided to assess the precision of the moisture test. For comparability purposes, the initial moisture determination is the value used to perform dry weight calculations.						

### General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01643	Aluminum	SW-846 6010B	1	103495708002	12/16/2010 16:41	Eric L Eby	1
07914	Boron	SW-846 6010B	1	103495708002	12/16/2010 04:39	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	103495708002	12/16/2010 04:39	Tara L Snyder	1
01654	Iron	SW-846 6010B	1	103495708002	12/16/2010 04:39	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	103495708002	12/16/2010 04:39	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	103495708002	12/16/2010 04:39	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	103495708002	12/16/2010 04:39	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	103495708002	12/16/2010 04:39	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	103495708002	12/16/2010 04:39	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	103495708002	12/16/2010 04:39	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	103495708002	12/16/2010 04:39	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	103495708002	12/16/2010 04:39	Tara L Snyder	1
06970	Titanium	SW-846 6010B	1	103505708003	12/20/2010 16:36	John P Hook	2
10146	Zirconium	SW-846 6010B	1	103495708002	12/16/2010 04:39	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	103491026002A	12/17/2010 15:07	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103491026002A	12/17/2010 15:07	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103491026002D	12/17/2010 15:07	Choon Y Tian	2

\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-017-SA5B-SS-0.0-0.5DUP Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-017-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162867  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 15:30

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3310 SDG#: DE033-10DUP

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
06127	Beryllium	SW-846 6020	1	103491026002A	12/17/2010	15:07	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103491026002A	12/17/2010	15:07	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103491026002A	12/17/2010	15:07	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103491026002A	12/17/2010	15:07	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103491026002A	12/17/2010	15:07	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103491026002A	12/17/2010	15:07	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103491026002C	12/17/2010	15:07	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103491026002A	12/17/2010	15:07	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103491026002B	12/17/2010	15:07	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103491026002A	12/17/2010	15:07	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103491026002A	12/17/2010	15:07	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103491026002A	12/17/2010	15:07	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	103491026002A	12/17/2010	15:07	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	103495711002	12/15/2010	19:56	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	103495708002	12/15/2010	10:35	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	103505708003	12/17/2010	19:17	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103491026002	12/15/2010	11:08	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	103495711002	12/15/2010	12:17	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10352352201A	12/20/2010	14:10	Ashley M Adams	1
07336	11a Anions by 300.0 - Nitrate	EPA 300.0	1	10352352201A	12/20/2010	14:10	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10356356201A	12/27/2010	15:26	Ashley M Adams	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	10356243201A	12/28/2010	21:18	Ashley M Adams	1
05895	21a Cyanide by 9012B	SW-846 9012B	1	10355102202A	12/21/2010	20:28	Joseph E McKenzie	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10352352201A	12/19/2010	16:30	Joseph E McKenzie	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10356356201A	12/22/2010	11:15	Nancy J Shoop	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	10355102202A	12/21/2010	15:35	Carolyn M Mastropietro	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10348182101B	12/14/2010	09:00	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10348039401B	12/14/2010	09:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10356243201A	12/22/2010	20:10	Daniel S Smith	1
11625	28a Moisture Content by 160.3	EPA 160.3 modified	1	10364162401B	12/31/2010	05:52	William C Schwebel	1
11626	28a Moisture Content by 160.3	EPA 160.3 modified	1	10364162401B	12/31/2010	05:52	William C Schwebel	1

\*-This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.



# Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

**Sample Description: EB-01-SA5B-120910 Water**  
**SSFL Area IV Collocated Soil Sampling**  
**EB-01-SA5B-120910**

**LLI Sample # WW 6162868**  
**LLI Group # 1225035**  
**Account # 13013**

**Project Name: SSFL Area IV Collocated Soil Sampling**

Collected: 12/09/2010 12:10

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3311 SDG#: DE033-11EB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method	As Received Limit*	As Received Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
04678	Aniline	62-53-3	1	U	1	5		1
04678	Benzidine	92-87-5	20	U	20	61		1
04678	Benzoic acid	65-85-0	6	U	6	15		1
04678	Benzyl alcohol	100-51-6	5	U	5	15		1
04678	4-Bromophenyl-phenylether	101-55-3	1	U	1	5		1
04678	Carbazole	86-74-8	1	U	1	5		1
04678	4-Chloro-3-methylphenol	59-50-7	1	U	1	5		1
04678	4-Chloroaniline	106-47-8	1	U	1	5		1
04678	bis(2-Chloroethoxy)methane	111-91-1	1	U	1	5		1
04678	bis(2-Chloroethyl)ether	111-44-4	1	U	1	5		1
04678	bis(2-Chloroisopropyl)ether	39638-32-9	1	U	1	5		1
04678	2-Chloronaphthalene	91-58-7	2	U	2	5		1
04678	2-Chlorophenol	95-57-8	1	U	1	5		1
04678	4-Chlorophenyl-phenylether	7005-72-3	2	U	2	5		1
04678	Dibenzofuran	132-64-9	1	U	1	5		1
04678	1,2-Dichlorobenzene	95-50-1	1	U	1	5		1
04678	1,3-Dichlorobenzene	541-73-1	1	U	1	5		1
04678	1,4-Dichlorobenzene	106-46-7	1	U	1	5		1
04678	3,3'-Dichlorobenzidine	91-94-1	2	U	2	5		1
04678	2,4-Dichlorophenol	120-83-2	1	U	1	5		1
04678	2,4-Dimethylphenol	105-67-9	3	U	3	10		1
04678	3,5-Dimethylphenol	108-68-9	3	U	3	10		1
04678	4,6-Dinitro-2-methylphenol	534-52-1	5	U	5	15		1
04678	2,4-Dinitrophenol	51-28-5	10	U	10	31		1
04678	2,4-Dinitrotoluene	121-14-2	1	U	1	5		1
04678	2,6-Dinitrotoluene	606-20-2	1	U	1	5		1
04678	1,2-Diphenylhydrazine	122-66-7	1	U	1	5		1
04678	Hexachlorobenzene	118-74-1	1	U	1	5		1
04678	Hexachlorobutadiene	87-68-3	1	U	1	5		1
04678	Hexachlorocyclopentadiene	77-47-4	5	U	5	15		1
04678	Hexachloroethane	67-72-1	1	U	1	5		1
04678	Isophorone	78-59-1	1	U	1	5		1
04678	2-Methylphenol	95-48-7	1	U	1	5		1
04678	4-Methylphenol	106-44-5	2	U	2	5		1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.								
04678	2-Nitroaniline	88-74-4	1	U	1	5		1
04678	3-Nitroaniline	99-09-2	1	U	1	5		1
04678	4-Nitroaniline	100-01-6	1	U	1	5		1
04678	Nitrobenzene	98-95-3	1	U	1	5		1
04678	2-Nitrophenol	88-75-5	1	U	1	5		1
04678	4-Nitrophenol	100-02-7	10	U	10	31		1
04678	N-Nitroso-di-n-propylamine	621-64-7	1	U	1	5		1
04678	N-Nitrosodiphenylamine	86-30-6	2	U	2	5		1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.								
04678	Pentachlorophenol	87-86-5	3	U	3	15		1
04678	Phenol	108-95-2	1	U	1	5		1

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**Sample Description: EB-01-SA5B-120910 Water**  
**SSFL Area IV Collocated Soil Sampling**  
**EB-01-SA5B-120910**

**LLI Sample # WW 6162868**  
**LLI Group # 1225035**  
**Account # 13013**

**Project Name: SSFL Area IV Collocated Soil Sampling**

Collected: 12/09/2010 12:10

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3311 SDG#: DE033-11EB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method	As Received Limit*	As Received Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS Semivolatiles SW-846 8270C</b>			ug/l	ug/l	ug/l	ug/l	ug/l	
04678	1,2,4-Trichlorobenzene	120-82-1	1	U	1	5		1
04678	2,4,5-Trichlorophenol	95-95-4	1	U	1	5		1
04678	2,4,6-Trichlorophenol	88-06-2	1	U	1	5		1

Select compounds were outside of QC windows in the LCS associated with this sample. Sufficient sample was unavailable to repeat the analysis.

GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	ug/l	ug/l
10137	Acenaphthene	83-32-9	0.010	U	0.010	0.051	1
10137	Acenaphthylene	208-96-8	0.010	U	0.010	0.051	1
10137	Anthracene	120-12-7	0.010	U	0.010	0.051	1
10137	Benzo(a)anthracene	56-55-3	0.010	U	0.010	0.051	1
10137	Benzo(a)pyrene	50-32-8	0.010	U	0.010	0.051	1
10137	Benzo(b)fluoranthene	205-99-2	0.010	U	0.010	0.051	1
10137	Benzo(g,h,i)perylene	191-24-2	0.010	U	0.010	0.051	1
10137	Benzo(k)fluoranthene	207-08-9	0.010	U	0.010	0.051	1
10137	Butylbenzylphthalate	85-68-7	0.077	J	0.051	1.0	1
10137	Di-n-butylphthalate	84-74-2	0.26	J	0.051	1.0	1
10137	Chrysene	218-01-9	0.010	U	0.010	0.051	1
10137	Dibenz(a,h)anthracene	53-70-3	0.010	U	0.010	0.051	1
10137	Diethylphthalate	84-66-2	0.090	J	0.051	1.0	1
10137	Dimethylphthalate	131-11-3	0.051	U	0.051	1.0	1
10137	Bis(2-Ethylhexyl)phthalate	117-81-7	0.22	J	0.051	1.0	1
10137	Fluoranthene	206-44-0	0.010	U	0.010	0.051	1
10137	Fluorene	86-73-7	0.010	U	0.010	0.051	1
10137	Indeno(1,2,3-cd)pyrene	193-39-5	0.010	U	0.010	0.051	1
10137	1-Methylnaphthalene	90-12-0	0.010	U	0.010	0.051	1
10137	2-Methylnaphthalene	91-57-6	0.010	U	0.010	0.051	1
10137	Naphthalene	91-20-3	0.032	J	0.010	0.051	1
10137	N-Nitrosodimethylamine	62-75-9	0.010	U	0.010	0.051	1
10137	Di-n-octylphthalate	117-84-0	0.075	J	0.051	1.0	1
10137	Phenanthrene	85-01-8	0.010	U	0.010	0.051	1
10137	Pyrene	129-00-0	0.010	U	0.010	0.051	1

The QC limits for n-nitrosodimethylamine are advisory only until sufficient data points can be obtained to calculate statistical limits.

The following compounds were detected in the method blank at the respective concentrations of:

di-n-butylphthalate .16 ug/l  
 butylbenzylphthalate .074 ug/l  
 bis(2-ethylhexyl)phthalate .086 ug/l  
 di-n-octylphthalate .076 ug/l

These blank values were not subtracted from the analytical results.

Herbicides	SW-846 8151A	ug/l	ug/l	ug/l	ug/l		
10407	2,4-D	94-75-7	0.16	U	0.16	0.51	1
10407	Dalapon	75-99-0	0.26	U	0.26	1.3	1
10407	2,4-DB	94-82-6	0.31	U	0.31	1.0	1
10407	Dicamba	1918-00-9	0.082	U	0.082	0.31	1
10407	Dinoseb	88-85-7	0.10	U	0.10	0.51	1
10407	2,4-DP (Dichlorprop)	120-36-5	0.16	U	0.16	0.51	1

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**Sample Description: EB-01-SA5B-120910 Water**  
**SSFL Area IV Collocated Soil Sampling**  
**EB-01-SA5B-120910**

**LLI Sample # WW 6162868**  
**LLI Group # 1225035**  
**Account # 13013**

**Project Name: SSFL Area IV Collocated Soil Sampling**

Collected: 12/09/2010 12:10

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3311 SDG#: DE033-11EB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Method Detection Limit*	As Received Limit of Quantitation	Action Limit	Dilution Factor
<b>Herbicides</b>		<b>SW-846 8151A</b>	<b>ug/l</b>		<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10407	MCPA	94-74-6	310	U	310	1,000		1
10407	MCPP	93-65-2	51	U	51	200		1
10407	2,4,5-T	93-76-5	0.015	U	0.015	0.051		1
10407	2,4,5-TP	93-72-1	0.010	U	0.010	0.051		1
<b>Pesticides/PCBs</b>		<b>SW-846 8081A</b>	<b>ug/l</b>		<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
00177	Aldrin	309-00-2	0.0020	U	0.0020	0.0098		1
00177	Alpha BHC	319-84-6	0.0029	U	0.0029	0.0098		1
00177	Beta BHC	319-85-7	0.0028	U	0.0028	0.0098		1
00177	Gamma BHC - Lindane	58-89-9	0.0020	U	0.0020	0.0098		1
00177	Chlordane	57-74-9	0.12	U	0.12	0.49		1
00177	p,p-DDD	72-54-8	0.0049	U	0.0049	0.020		1
00177	p,p-DDE	72-55-9	0.0049	U	0.0049	0.020		1
00177	p,p-DDT	50-29-3	0.0049	U	0.0049	0.020		1
00177	Delta BHC	319-86-8	0.0028	U	0.0028	0.0098		1
00177	Dieldrin	60-57-1	0.0052	U	0.0052	0.020		1
00177	Endosulfan I	959-98-8	0.0042	U	0.0042	0.0098		1
00177	Endosulfan II	33213-65-9	0.015	U	0.015	0.020		1
00177	Endosulfan Sulfate	1031-07-8	0.0057	U	0.0057	0.020		1
00177	Endrin	72-20-8	0.0079	U	0.0079	0.020		1
00177	Endrin Aldehyde	7421-93-4	0.020	U	0.020	0.098		1
00177	Endrin Ketone	53494-70-5	0.0049	U	0.0049	0.020		1
00177	Heptachlor	76-44-8	0.0025	U	0.0025	0.0098		1
00177	Heptachlor Epoxide	1024-57-3	0.0023	U	0.0023	0.0098		1
00177	Methoxychlor	72-43-5	0.029	U	0.029	0.098		1
00177	Mirex	2385-85-5	0.083	U	0.083	0.25		1
00177	Toxaphene	8001-35-2	0.98	U	0.98	2.9		1
<b>Pesticides/PCBs</b>		<b>SW-846 8082</b>	<b>ug/l</b>		<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10227	Aroclor 5432	63496-31-1	0.098	U	0.098	0.49		1
10227	Aroclor 5442	12642-23-8	0.098	U	0.098	0.49		1
10227	Aroclor 5460	11126-42-4	0.098	U	0.098	0.49		1
10227	PCB-1016	12674-11-2	0.098	U	0.098	0.49		1
10227	PCB-1221	11104-28-2	0.098	U	0.098	0.49		1
10227	PCB-1232	11141-16-5	0.20	U	0.20	0.49		1
10227	PCB-1242	53469-21-9	0.098	U	0.098	0.49		1
10227	PCB-1248	12672-29-6	0.098	U	0.098	0.49		1
10227	PCB-1254	11097-69-1	0.098	U	0.098	0.49		1
10227	PCB-1260	11096-82-5	0.098	U	0.098	0.49		1
10227	PCB-1262	37324-23-5	0.20	U	0.20	0.49		1
10227	PCB-1268	11100-14-4	0.16	U	0.16	0.49		1

The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.

<b>Metals</b>		<b>SW-846 6010B</b>	<b>mg/l</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>
01743	Aluminum	7429-90-5	0.0834	U	0.0834	0.200	1
08014	Boron	7440-42-8	0.0138	U	0.0138	0.0500	1
01750	Calcium	7440-70-2	0.0702	U	0.0702	0.200	1
01754	Iron	7439-89-6	0.0522	U	0.0522	0.200	1

\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description: EB-01-SA5B-120910 Water**  
**SSFL Area IV Collocated Soil Sampling**  
**EB-01-SA5B-120910**

**LLI Sample # WW 6162868**  
**LLI Group # 1225035**  
**Account # 13013**

**Project Name: SSFL Area IV Collocated Soil Sampling**

Collected: 12/09/2010 12:10

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3311 SDG#: DE033-11EB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Action Limit	Dilution Factor
<b>Metals</b>							
<b>SW-846 6010B</b>			<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
01756	Lithium	7439-93-2	0.0024 U	0.0024	0.0200		1
01757	Magnesium	7439-95-4	0.0172 U	0.0172	0.100		1
07058	Manganese	7439-96-5	0.00084 U	0.00084	0.0050		1
10143	Phosphorus	7723-14-0	0.0089 U	0.0089	0.100		1
01762	Potassium	7440-09-7	0.239 U	0.239	0.500		1
01767	Sodium	7440-23-5	0.433 U	0.433	1.00		1
08068	Strontium	7440-24-6	0.00089 U	0.00089	0.0050		1
07069	Tin	7440-31-5	0.0098 U	0.0098	0.0200		1
07070	Titanium	7440-32-6	0.0038 U	0.0038	0.0100		1
10144	Zirconium	7440-67-7	0.0206 U	0.0206	0.0500		1
<b>SW-846 6020</b>			<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
06024	Antimony	7440-36-0	0.00030 U	0.00030	0.0010		1
06025	Arsenic	7440-38-2	0.00095 U	0.00095	0.0020		1
06026	Barium	7440-39-3	0.00038 U	0.00038	0.0020		1
06027	Beryllium	7440-41-7	0.00013 U	0.00013	0.00050		1
06028	Cadmium	7440-43-9	0.00020 U	0.00020	0.00050		1
06031	Chromium	7440-47-3	0.00060 U	0.00060	0.0020		1
06032	Cobalt	7440-48-4	0.00010 U	0.00010	0.00050		1
06033	Copper	7440-50-8	0.00038 U	0.00038	0.0020		1
06035	Lead	7439-92-1	0.000052 U	0.000052	0.0010		1
06038	Molybdenum	7439-98-7	0.00025 U	0.00025	0.00050		1
06039	Nickel	7440-02-0	0.00050 U	0.00050	0.0020		1
06041	Selenium	7782-49-2	0.00025 U	0.00025	0.0020		1
06042	Silver	7440-22-4	0.00010 J	0.000080	0.00050		1
06045	Thallium	7440-28-0	0.00015 U	0.00015	0.00050		1
06048	Vanadium	7440-62-2	0.00016 U	0.00016	0.00050		1
06049	Zinc	7440-66-6	0.0040 U	0.0040	0.0150		1
<b>SW-846 7470A</b>			<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	0.000050 U	0.000050	0.00020		1
<b>Wet Chemistry</b>							
<b>EPA 300.0</b>			<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
01504	11b Anions by 300.0 - Fluoride	16984-48-8	0.080 U	0.080	0.10		1
<b>EPA 314.0</b>			<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
06019	7b Perchlorate EPA 314.0	14797-73-0	0.70 U	0.70	2.0		1
<b>SW-846 7199</b>			<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
06467	3b Cr VI by EPA 7199	18540-29-9	5.0 U	5.0	10.0		1
<b>SW-846 9040B</b>			<b>Std. Units</b>	<b>Std. Units</b>	<b>Std. Units</b>	<b>Std. Units</b>	
00200	22b pH by 9040B	n.a.	5.6	0.010	0.010		1

\*—This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.



# Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: EB-01-SA5B-120910 Water  
SSFL Area IV Collocated Soil Sampling  
EB-01-SA5B-120910

LLI Sample # WW 6162868  
LLI Group # 1225035  
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/09/2010 12:10

CDM Federal Programs Corp.  
14420 Albemarle Point Place  
Suite 210  
Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3311 SDG#: DE033-11EB

### General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04678	5b Semivolatiles by EPA 8270C	SW-846 8270C	1	10347WAE026	12/20/2010 06:10	Brian K Graham	1
10137	4b Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10347WAI026	12/15/2010 09:25	Joseph M Gambler	1
00813	BNA Water Extraction	SW-846 3510C	1	10347WAE026	12/13/2010 14:30	Timothy J Attenberger	1
10466	BNA Water Extraction SIM	SW-846 3510C	1	10347WAI026	12/14/2010 03:15	Sherry L Morrow	1
10407	13b Herbicides by EPA 8151	SW-846 8151A	1	103480009A	12/15/2010 19:00	John W Perkins	1
00177	12b Pesticides by 8081A	SW-846 8081A	1	103470016A	12/18/2010 13:02	Lisa A Reinert	1
10227	8b PCBs/PCTs by 8082	SW-846 8082	1	103470015A	12/14/2010 19:17	Lindsey K Lafferty	1
11117	PCB Waters Extraction	SW-846 3510C	1	103470015A	12/14/2010 03:15	Sherry L Morrow	1
11118	Pesticide Screen Waters Ext	SW-846 3510C	1	103470016A	12/14/2010 03:15	Sherry L Morrow	1
00816	Water Sample Herbicide Extract	SW-846 8151A	1	103480009A	12/14/2010 13:00	Kelli M Barto	1
01743	Aluminum	SW-846 6010B	1	103471848006	12/14/2010 19:16	John P Hook	1
08014	Boron	SW-846 6010B	1	103471848006	12/14/2010 19:16	John P Hook	1
01750	Calcium	SW-846 6010B	1	103471848006	12/14/2010 19:16	John P Hook	1
01754	Iron	SW-846 6010B	1	103471848006	12/14/2010 19:16	John P Hook	1
01756	Lithium	SW-846 6010B	1	103471848006	12/14/2010 19:16	John P Hook	1
01757	Magnesium	SW-846 6010B	1	103471848006	12/14/2010 19:16	John P Hook	1
07058	Manganese	SW-846 6010B	1	103471848006	12/14/2010 19:16	John P Hook	1
10143	Phosphorus	SW-846 6010B	1	103471848006	12/14/2010 19:16	John P Hook	1
01762	Potassium	SW-846 6010B	1	103471848006	12/14/2010 19:16	John P Hook	1
01767	Sodium	SW-846 6010B	1	103471848006	12/14/2010 19:16	John P Hook	1
08068	Strontium	SW-846 6010B	1	103471848006	12/14/2010 19:16	John P Hook	1
07069	Tin	SW-846 6010B	1	103471848006	12/15/2010 16:57	John P Hook	1
07070	Titanium	SW-846 6010B	1	103471848006	12/14/2010 19:16	John P Hook	1
10144	Zirconium	SW-846 6010B	1	103471848006	12/14/2010 19:16	John P Hook	1
06024	Antimony	SW-846 6020	1	103476050003A	12/16/2010 16:39	Choon Y Tian	1
06025	Arsenic	SW-846 6020	1	103476050003A	12/15/2010 00:30	David K Beck	1
06026	Barium	SW-846 6020	1	103476050003D	12/15/2010 00:30	David K Beck	1
06027	Beryllium	SW-846 6020	1	103476050003A	12/15/2010 00:30	David K Beck	1
06028	Cadmium	SW-846 6020	1	103476050003A	12/15/2010 00:30	David K Beck	1
06031	Chromium	SW-846 6020	1	103476050003A	12/15/2010 00:30	David K Beck	1
06032	Cobalt	SW-846 6020	1	103476050003A	12/16/2010 16:39	Choon Y Tian	1
06033	Copper	SW-846 6020	1	103476050003A	12/15/2010 00:30	David K Beck	1
06035	Lead	SW-846 6020	1	103476050003A	12/15/2010 00:30	David K Beck	1
06038	Molybdenum	SW-846 6020	1	103476050003C	12/16/2010 16:39	Choon Y Tian	1
06039	Nickel	SW-846 6020	1	103476050003A	12/15/2010 00:30	David K Beck	1
06041	Selenium	SW-846 6020	1	103476050003B	12/15/2010 00:30	David K Beck	1
06042	Silver	SW-846 6020	1	103476050003A	12/15/2010 00:30	David K Beck	1
06045	Thallium	SW-846 6020	1	103476050003A	12/15/2010 00:30	David K Beck	1

\*=This limit was used in the evaluation of the final result  
Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description: EB-01-SA5B-120910 Water**  
**SSFL Area IV Collocated Soil Sampling**  
**EB-01-SA5B-120910**

**LLI Sample # WW 6162868**  
**LLI Group # 1225035**  
**Account # 13013**

**Project Name: SSFL Area IV Collocated Soil Sampling**

Collected: 12/09/2010 12:10

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3311 SDG#: DE033-11EB

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
06048	Vanadium	SW-846 6020	1	103476050003A	12/15/2010	00:30	David K Beck	1
06049	Zinc	SW-846 6020	1	103476050003A	12/15/2010	00:30	David K Beck	1
00259	Mercury	SW-846 7470A	1	103475713002	12/14/2010	10:03	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	103471848006	12/14/2010	10:25	Denise K Conners	1
06050	ICP/MS SW-846 Water Digest	SW-846 3020A	1	103476050003	12/14/2010	09:33	Denise K Conners	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	103475713002	12/13/2010	15:25	Nelli S Markaryan	1
01504	11b Anions by 300.0 - Fluoride	EPA 300.0	1	10350196902A	12/17/2010	07:29	Ashley M Adams	1
06019	7b Perchlorate EPA 314.0	EPA 314.0	1	10352658701A	12/20/2010	14:51	Venia B McFadden	1
06467	3b Cr VI by EPA 7199	SW-846 7199	1	10344113001A	12/10/2010	11:48	Nicole M Kepley	1
00200	22b pH by 9040B	SW-846 9040B	1	10349020001A	12/15/2010	22:30	Luz M Groff	1

\*-This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description: TB-120910 Water**  
**SSFL Area IV Collocated Soil Sampling**  
**TB-120910**

**LLI Sample # WW 6162869**  
**LLI Group # 1225035**  
**Account # 13013**

**Project Name: SSFL Area IV Collocated Soil Sampling**

Collected: 12/09/2010 16:30

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3312 SDG#: DE033-12TB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method	As Received Limit*	As Received Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10904	Acetone	67-64-1	6	U	6	20		1
10904	Benzene	71-43-2	0.5	U	0.5	5		1
10904	Bromobenzene	108-86-1	1	U	1	5		1
10904	Bromochloromethane	74-97-5	1	U	1	5		1
10904	Bromodichloromethane	75-27-4	1	U	1	5		1
10904	Bromoform	75-25-2	1	U	1	5		1
10904	Bromomethane	74-83-9	1	U	1	5		1
10904	2-Butanone	78-93-3	3	U	3	10		1
10904	n-Butylbenzene	104-51-8	1	U	1	5		1
10904	sec-Butylbenzene	135-98-8	1	U	1	5		1
10904	tert-Butylbenzene	98-06-6	1	U	1	5		1
10904	Carbon Tetrachloride	56-23-5	1	U	1	5		1
10904	Chlorobenzene	108-90-7	0.8	U	0.8	5		1
10904	Chloroethane	75-00-3	1	U	1	5		1
10904	2-Chloroethyl Vinyl Ether	110-75-8	2	U	2	10		1
	2-Chloroethyl vinyl ether may not be recovered if acid was used to preserve this sample.							
10904	Chloroform	67-66-3	0.8	U	0.8	5		1
10904	Chloromethane	74-87-3	1	U	1	5		1
10904	2-Chlorotoluene	95-49-8	1	U	1	5		1
10904	4-Chlorotoluene	106-43-4	1	U	1	5		1
10904	Chlorotrifluoroethene	79-38-9	2	U	2	5		1
10904	1,2-Dibromo-3-chloropropane	96-12-8	2	U	2	5		1
10904	Dibromochloromethane	124-48-1	1	U	1	5		1
10904	1,2-Dibromoethane	106-93-4	1	U	1	5		1
10904	Dibromomethane	74-95-3	1	U	1	5		1
10904	1,2-Dichlorobenzene	95-50-1	1	U	1	5		1
10904	1,3-Dichlorobenzene	541-73-1	1	U	1	5		1
10904	1,4-Dichlorobenzene	106-46-7	1	U	1	5		1
10904	Dichlorodifluoromethane	75-71-8	2	U	2	5		1
10904	1,1-Dichloroethane	75-34-3	1	U	1	5		1
10904	1,2-Dichloroethane	107-06-2	1	U	1	5		1
10904	1,1-Dichloroethene	75-35-4	0.8	U	0.8	5		1
10904	cis-1,2-Dichloroethene	156-59-2	0.8	U	0.8	5		1
10904	trans-1,2-Dichloroethene	156-60-5	0.8	U	0.8	5		1
10904	1,2-Dichloropropane	78-87-5	1	U	1	5		1
10904	1,3-Dichloropropane	142-28-9	1	U	1	5		1
10904	2,2-Dichloropropane	594-20-7	1	U	1	5		1
10904	1,1-Dichloropropene	563-58-6	1	U	1	5		1
10904	cis-1,3-Dichloropropene	10061-01-5	1	U	1	5		1
10904	trans-1,3-Dichloropropene	10061-02-6	1	U	1	5		1
10904	Ethylbenzene	100-41-4	0.8	U	0.8	5		1
10904	Freon 113	76-13-1	2	U	2	10		1
10904	Freon 133a	75-88-7	2	U	2	5		1
10904	Hexachlorobutadiene	87-68-3	2	U	2	5		1
10904	2-Hexanone	591-78-6	3	U	3	10		1
10904	Isopropylbenzene	98-82-8	1	U	1	5		1
10904	p-Isopropyltoluene	99-87-6	1	U	1	5		1
10904	Methyl Tertiary Butyl Ether	1634-04-4	0.5	U	0.5	5		1
10904	4-Methyl-2-pentanone	108-10-1	3	U	3	10		1

\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** TB-120910 Water  
 SSFL Area IV Collocated Soil Sampling  
 TB-120910

LLI Sample # WW 6162869  
 LLI Group # 1225035  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/09/2010 16:30

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3312 SDG#: DE033-12TB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS Volatiles SW-846 8260B</b>			ug/l	ug/l	ug/l	ug/l	
10904	Methylene Chloride	75-09-2	2 U	2	5		1
10904	n-Propylbenzene	103-65-1	1 U	1	5		1
10904	Styrene	100-42-5	1 U	1	5		1
10904	1,1,1,2-Tetrachloroethane	630-20-6	1 U	1	5		1
10904	1,1,2,2-Tetrachloroethane	79-34-5	1 U	1	5		1
10904	Tetrachloroethene	127-18-4	0.8 U	0.8	5		1
10904	Toluene	108-88-3	0.7 U	0.7	5		1
10904	1,2,3-Trichlorobenzene	87-61-6	1 U	1	5		1
10904	1,2,4-Trichlorobenzene	120-82-1	1 U	1	5		1
10904	1,1,1-Trichloroethane	71-55-6	0.8 U	0.8	5		1
10904	1,1,2-Trichloroethane	79-00-5	0.8 U	0.8	5		1
10904	Trichloroethene	79-01-6	1 U	1	5		1
10904	Trichlorofluoromethane	75-69-4	2 U	2	5		1
10904	1,2,3-Trichloropropane	96-18-4	1 U	1	5		1
10904	1,2,4-Trimethylbenzene	95-63-6	1 U	1	5		1
10904	1,3,5-Trimethylbenzene	108-67-8	1 U	1	5		1
10904	Vinyl Chloride	75-01-4	1 U	1	5		1
10904	m+p-Xylene	179601-23-1	0.8 U	0.8	5		1
10904	o-Xylene	95-47-6	0.8 U	0.8	5		1
<b>GC/MS Volatiles SW-846 8260B SIM</b>			ug/l	ug/l	ug/l	ug/l	
00527	1,4-Dioxane	123-91-1	0.5 U	0.5	2.0		1
<b>GC Volatiles TPH GRO SW-8015B</b>			ug/l	ug/l	ug/l	ug/l	
08229	TPH-GRO S.CA water C5-C12	n.a.	20 U	20	50		1

### General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10904	1b Volatile Organics EPA8260	SW-846 8260B	1	Y103462AA	12/13/2010 17:10	Nicholas R Rossi	1
00527	14b 1,4-Dioxane by 8260B SIM	SW-846 8260B SIM	1	E103491AA	12/15/2010 10:27	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Y103462AA	12/13/2010 17:10	Nicholas R Rossi	1
01163	GC/MS VOA Water Prep	SW-846 5030B	2	E103491AA	12/15/2010 10:27	Jason M Long	1
08229	9b TPH by EPA 8015B Gas C5-C12	TPH GRO SW-8015B	1	10350A20A	12/16/2010 20:33	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	10350A20A	12/16/2010 20:33	Marie D John	1

\*—This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description: EB14-SA5C-120810 Water**  
**SSFL Area IV Collocated Soil Sampling**  
**EB14-SA5C-120810**

**LLI Sample # WW 6162870**  
**LLI Group # 1225035**  
**Account # 13013**

**Project Name: SSFL Area IV Collocated Soil Sampling**

Collected: 12/08/2010

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3313 SDG#: DE033-13EB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS Semivolatiles EPA 1625C</b>			ng/l	ng/l	ng/l	ng/l	
10962	N-Nitrosodimethylamine	62-75-9	1.57	0.549	1.10		1
N-Nitrosodimethylamine was detected in the method blank at a concentration of .696 ng/l. The blank value was not subtracted from the analytical result.							
The QC limits for N-Nitrosodimethylamine are advisory only until sufficient data points can be obtained to calculate statistical limits.							
<b>GC Volatiles TPH GRO SW-8015B</b>			ug/l	ug/l	ug/l	ug/l	
08229	TPH-GRO S.CA water C5-C12	n.a.	20 U	20	50		1
<b>Explosives SW-846 8330A</b>			ug/l	ug/l	ug/l	ug/l	
10131	4-Amino-2,6-Dinitrotoluene	19406-51-0	0.30 U	0.30	0.60	1000000	1
10131	2-Amino-4,6-Dinitrotoluene	35572-78-2	0.20 U	0.20	0.60	1000000	1
10131	2,6-Diamino-4-nitrotoluene	59229-75-3	0.20 U	0.20	0.60	1000000	1
10131	2,4-Diamino-6-nitrotoluene	6629-29-4	0.20 U	0.20	0.60	1000000	1
10131	1,3-Dinitrobenzene	99-65-0	0.20 U	0.20	0.60	1000000	1
10131	2,4-Dinitrotoluene	121-14-2	0.20 U	0.20	0.60	1000000	1
10131	2,6-Dinitrotoluene	606-20-2	0.20 U	0.20	0.60	1000000	1
10131	HMX	2691-41-0	0.65 U	0.65	2.0	1000000	1
10131	Nitrobenzene	98-95-3	0.20 U	0.20	0.60	1000000	1
10131	Nitroglycerin	55-63-0	5.2 U	5.2	15	1000000	1
10131	2-Nitrotoluene	88-72-2	0.20 U	0.20	0.60	1000000	1
10131	3-Nitrotoluene	99-08-1	0.40 U	0.40	1.2	1000000	1
10131	4-Nitrotoluene	99-99-0	0.60 U	0.60	1.2	1000000	1
10131	PETN	78-11-5	6.0 U	6.0	18	1000000	1
10131	RDX	121-82-4	0.20 U	0.20	0.60	1000000	1
10131	Tetryl	479-45-8	0.40 U	0.40	0.60	1000000	1
10131	1,3,5-Trinitrobenzene	99-35-4	0.20 U	0.20	0.60	1000000	1
10131	2,4,6-Trinitrotoluene	118-96-7	0.20 U	0.20	0.60	1000000	1

The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.

\*=This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description: EB14-SA5C-120810 Water**  
**SSFL Area IV Collocated Soil Sampling**  
**EB14-SA5C-120810**

**LLI Sample # WW 6162870**  
**LLI Group # 1225035**  
**Account # 13013**

**Project Name: SSFL Area IV Collocated Soil Sampling**

Collected: 12/08/2010

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3313 SDG#: DE033-13EB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method	As Received Detection Limit*	As Received Limit of Quantitation	Action Limit	Dilution Factor
<b>Herbicides</b>								
	<b>SW-846 8151A</b>		<b>ug/l</b>		<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10407	2,4-D	94-75-7	0.39 U		0.39	1.2		1
10407	Dalapon	75-99-0	0.61 U		0.61	3.0		1
10407	2,4-DB	94-82-6	0.73 U		0.73	2.4		1
10407	Dicamba	1918-00-9	0.19 U		0.19	0.73		1
10407	Dinoseb	88-85-7	0.24 U		0.24	1.2		1
10407	2,4-DP (Dichlorprop)	120-36-5	0.39 U		0.39	1.2		1
10407	MCPA	94-74-6	730 U		730	2,400		1
10407	MCPP	93-65-2	120 U		120	490		1
10407	2,4,5-T	93-76-5	0.036 U		0.036	0.12		1
10407	2,4,5-TP	93-72-1	0.024 U		0.024	0.12		1
<b>HPLC Organics</b>								
	<b>SW-846 8315A</b>		<b>ug/l</b>		<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
04144	17b Formaldehyde by 8315A	50-00-0	12 J		10	50		1
<b>GC Extractable TPH</b>								
	<b>SW-846 8015B modified</b>		<b>mg/l</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
10365	EFH (C12-C14)	n.a.	0.11 U		0.11	0.64		1
10365	EFH (C15-C20)	n.a.	0.11 U		0.11	0.64		1
10365	EFH (C21-C30)	n.a.	0.11 U		0.11	0.64		1
10365	EFH (C30 - C40)	n.a.	0.11 U		0.11	0.64		1
10365	EFH (C8-C11)	n.a.	0.11 U		0.11	0.64		1
<b>GC Miscellaneous</b>								
	<b>SW-846 8015B</b>		<b>ug/l</b>		<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
06624	Ethanol	64-17-5	520 J		200	1,000		1
06624	Isopropanol	67-63-0	200 U		200	1,000		1
06624	Methanol	67-56-1	200 U		200	1,000		1
<b>GC Miscellaneous</b>								
	<b>SW-846 8015B modified</b>		<b>mg/l</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
08278	Diethylene glycol	111-46-6	10 U		10	100		1
08278	Ethylene glycol	107-21-1	10 U		10	100		1
08278	Propylene glycol	57-55-6	10 U		10	100		1
<b>Terphenyls</b>								
	<b>SW-846 8015B</b>		<b>mg/l</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
10319	m-Terphenyl	92-06-8	0.086 U		0.086	0.27		1
10319	o-Terphenyl	84-15-1	0.086 U		0.086	0.27		1
10319	p-Terphenyl	92-94-4	0.086 U		0.086	0.27		1
<b>Wet Chemistry</b>								
	<b>EPA 300.0</b>		<b>mg/l</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00368	11b Anions by 300.0 - Nitrate	14797-55-8	0.050 U		0.050	0.10		1
The collection time was not provided for this equipment blank.								
	<b>SW-846 9012B</b>		<b>mg/l</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
08255	21b Cyanide by 9012B	57-12-5	0.0050 U		0.0050	0.010		1
The sample was analyzed outside of the 14 day holding time for Total Cyanide.								

\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description: EB14-SA5C-120810 Water**  
**SSFL Area IV Collocated Soil Sampling**  
**EB14-SA5C-120810**

**LLI Sample # WW 6162870**  
**LLI Group # 1225035**  
**Account # 13013**

**Project Name: SSFL Area IV Collocated Soil Sampling**

Collected: 12/08/2010

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3313 SDG#: DE033-13EB

### General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
10962	19b NDMA by 1625C	EPA 1625C	1	10347WAA026	12/21/2010	16:54	Timothy J Trees	1
11629	NDMA Liquid/Liquid Extraction	SW-846 3520C	1	10347WAA026	12/13/2010	13:10	Wanda F Oswald	1
08229	9b TPH by EPA 8015B Gas C5-C12	TPH GRO SW-8015B	1	10355B20A	12/22/2010	11:31	Carrie E Miller	1
01146	GC VOA Water Prep	SW-846 5030B	1	10355B20A	12/22/2010	11:31	Carrie E Miller	1
10131	20b Energetics by 8330A	SW-846 8330A	1	103480011A	12/16/2010	03:19	Michele D Hamilton	1
04144	17b Formaldehyde by 8315A	SW-846 8315A	1	103440024A	12/13/2010	18:07	James H Place	1
10407	13b Herbicides by EPA 8151	SW-846 8151A	1	103490003A	12/17/2010	20:39	John W Perkins	1
00816	Water Sample Herbicide Extract	SW-846 8151A	1	103490003A	12/15/2010	12:30	Kelli M Barto	1
01013	Formaldehyde Extraction	SW-846 8315A	1	103440024A	12/11/2010	08:30	Kelli M Barto	1
11122	Energetics Extraction	SW-846 8330	1	103480011A	12/14/2010	16:40	Wanda F Oswald	1
10365	9b TPH by EPA 8015B Oil/Diesel	SW-846 8015B modified	1	103460001A	12/19/2010	11:42	Heather E Williams	1
06624	25b Alcohols by 8015B	SW-846 8015B	1	103480001A	12/14/2010	10:18	Dustin A Underkoffler	1
08278	27b Glycols by 8015B	SW-846 8015B modified	1	103480004A	12/14/2010	19:58	Robert Brown	1
10319	26b Terphenyls by 8015B	SW-846 8015B	1	103470004A	12/14/2010	20:47	Heather E Williams	1
11203	Boeing EFH Waters Extraction	SW-846 3510C	1	103460001A	12/13/2010	09:30	Olivia Arosemena	1
10304	Terphenyls water prep	SW-846 3510C	1	103470004A	12/13/2010	14:00	Kelli M Barto	1
00368	11b Anions by 300.0 - Nitrate	EPA 300.0	1	10344196901A	12/10/2010	17:05	Ashley M Adams	1
08255	21b Cyanide by 9012B	SW-846 9012B	1	10361117101A	12/27/2010	17:48	Joseph E McKenzie	1
08256	Cyanide Water Distillation	SW-846 9012B	1	10361117101A	12/27/2010	11:30	Nancy J Shoop	1

\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-029-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-029-SA5B-SS-0.0-0.5

LLI Sample # SW 6162871  
 LLI Group # 1225035  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 14:27

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3314 SDG#: DE033-14

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04688	Aniline	62-53-3	180	U 180	550		1
04688	Benzidine	92-87-5	1,300	U 1,300	3,600		1
04688	Benzoic acid	65-85-0	180	U 180	550		1
04688	Benzyl alcohol	100-51-6	180	U 180	550		1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180		1
04688	Carbazole	86-74-8	18	U 18	180		1
04688	4-Chloro-3-methylphenol	59-50-7	36	U 36	180		1
04688	4-Chloroaniline	106-47-8	73	U 73	180		1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180		1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180		1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180		1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180		1
04688	2-Chlorophenol	95-57-8	18	U 18	180		1
04688	4-Chlorophenyl-phenylether	7005-72-3	36	U 36	180		1
04688	Dibenzofuran	132-64-9	18	U 18	180		1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180		1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180		1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180		1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	360		1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180		1
04688	2,4-Dimethylphenol	105-67-9	36	U 36	180		1
04688	3,5-Dimethylphenol	108-68-9	36	U 36	180		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	550		1
04688	2,4-Dinitrophenol	51-28-5	730	U 730	2,200		1
04688	2,4-Dinitrotoluene	121-14-2	36	U 36	180		1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180		1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180		1
04688	Hexachlorobenzene	118-74-1	18	U 18	180		1
04688	Hexachlorobutadiene	87-68-3	73	U 73	180		1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	550		1
04688	Hexachloroethane	67-72-1	18	U 18	180		1
04688	Isophorone	78-59-1	18	U 18	180		1
04688	2-Methylphenol	95-48-7	36	U 36	180		1
04688	4-Methylphenol	106-44-5	36	U 36	180		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	18	U 18	180		1
04688	3-Nitroaniline	99-09-2	36	U 36	180		1
04688	4-Nitroaniline	100-01-6	73	U 73	180		1
04688	Nitrobenzene	98-95-3	18	U 18	180		1
04688	2-Nitrophenol	88-75-5	18	U 18	180		1
04688	4-Nitrophenol	100-02-7	180	U 180	550		1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180		1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	180	U 180	550		1
04688	Phenol	108-95-2	18	U 18	180		1

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Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-029-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-029-SA5B-SS-0.0-0.5

LLI Sample # SW 6162871  
 LLI Group # 1225035  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 14:27

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3314 SDG#: DE033-14

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS Semivolatiles</b>	<b>SW-846 8270C</b>		<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04688	1,2,4-Trichlorobenzene	120-82-1	18	U 18	180		1
04688	2,4,5-Trichlorophenol	95-95-4	36	U 36	180		1
04688	2,4,6-Trichlorophenol	88-06-2	36	U 36	180		1

The LCS recovery is outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance:  
 bis(2-chloroisopropyl)ether

GC/MS Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	ug/kg
10138	Acenaphthene	83-32-9	0.73 U	0.73	1.8
10138	Acenaphthylene	208-96-8	0.36 U	0.36	1.8
10138	Anthracene	120-12-7	0.36 U	0.36	1.8
10138	Benzo(a)anthracene	56-55-3	1.9	0.73	1.8
10138	Benzo(a)pyrene	50-32-8	1.7 J	0.73	1.8
10138	Benzo(b)fluoranthene	205-99-2	3.2	0.73	1.8
10138	Benzo(g,h,i)perylene	191-24-2	0.94 J	0.73	1.8
10138	Benzo(k)fluoranthene	207-08-9	1.1 J	0.73	1.8
10138	Butylbenzylphthalate	85-68-7	6.6 U	6.6	20
10138	Di-n-butylphthalate	84-74-2	6.6 U	6.6	20
10138	Chrysene	218-01-9	2.6	0.36	1.8
10138	Dibenz(a,h)anthracene	53-70-3	0.73 U	0.73	1.8
10138	Diethylphthalate	84-66-2	6.6 U	6.6	20
10138	Dimethylphthalate	131-11-3	6.6 U	6.6	20
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	8.2 J	6.6	20
10138	Fluoranthene	206-44-0	3.3	0.73	1.8
10138	Fluorene	86-73-7	0.73 U	0.73	1.8
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.73 U	0.73	1.8
10138	1-Methylnaphthalene	90-12-0	0.73 U	0.73	1.8
10138	2-Methylnaphthalene	91-57-6	0.73 U	0.73	1.8
10138	Naphthalene	91-20-3	0.73 U	0.73	1.8
10138	N-Nitrosodimethylamine	62-75-9	0.73 U	0.73	1.8
10138	Di-n-octylphthalate	117-84-0	6.6 U	6.6	20
10138	Phenanthrene	85-01-8	0.91 J	0.73	1.8
10138	Pyrene	129-00-0	2.8	0.73	1.8

Bis(2-ethylhexyl)phthalate was detected in the method blank at a concentration of 6.5 ug/kg. The blank value was not subtracted from the analytical result.

Herbicides	SW-846 8151A	ug/kg	ug/kg	ug/kg	ug/kg
10401	2,4-D	94-75-7	1.3 U	1.3	3.9
10401	Dalapon	75-99-0	4.8 U	4.8	9.8
10401	2,4-DB	94-82-6	2.9	0.68	1.9
10401	Dicamba	1918-00-9	0.44 U	0.44	1.3
10401	Dinoseb	88-85-7	0.88 U	0.88	2.6
10401	2,4-DP (Dichlorprop)	120-36-5	0.88 U	0.88	1.9
10401	MCPA	94-74-6	210 U	210	270
10401	MCPFP (Mecoprop)	93-65-2	82 U	82	270
10401	2,4,5-T	93-76-5	0.090 U	0.090	0.19
10401	2,4,5-TP	93-72-1	0.082 U	0.082	0.19

The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory

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# Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

**Sample Description:** SL-029-SA5B-SS-0.0-0.5 Soil  
SSFL Area IV Collocated Soil Sampling  
SL-029-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162871  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 14:27

CDM Federal Programs Corp.  
14420 Albemarle Point Place  
Suite 210  
Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3314 SDG#: DE033-14

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
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statistical limits of 0-36%, the data is reported.

When the concentration detected on the primary and confirmation column is significantly different, some uncertainty as to the presence and concentration of the compound exists. In these cases, the reporting limits have been raised. The following compounds were affected: MCPA.

Pesticides/PCBs	SW-846 8081A	ug/kg	ug/kg	ug/kg	ug/kg
01363 Aldrin	309-00-2	0.072 U	0.072	0.18	1
01363 Alpha BHC	319-84-6	0.037 U	0.037	0.18	1
01363 Beta BHC	319-85-7	0.071 J	0.066	0.18	1
01363 Gamma BHC - Lindane	58-89-9	0.037 U	0.037	0.18	1
01363 Chlordane	57-74-9	0.88 U	0.88	3.7	1
01363 p,p-DDD	72-54-8	0.072 U	0.072	0.37	1
01363 p,p-DDE	72-55-9	0.072 U	0.072	0.37	1
01363 p,p-DDT	50-29-3	0.15 U	0.15	0.37	1
01363 Delta BHC	319-86-8	0.039 U	0.039	0.18	1
01363 Dieldrin	60-57-1	0.072 U	0.072	0.37	1
01363 Endosulfan I	959-98-8	0.048 U	0.048	0.18	1
01363 Endosulfan II	33213-65-9	0.072 U	0.072	0.37	1
01363 Endosulfan Sulfate	1031-07-8	0.073 U	0.073	0.37	1
01363 Endrin	72-20-8	0.072 U	0.072	0.37	1
01363 Endrin Aldehyde	7421-93-4	0.072 U	0.072	0.37	1
01363 Endrin Ketone	53494-70-5	0.072 U	0.072	0.37	1
01363 Heptachlor	76-44-8	0.066 U	0.066	0.18	1
01363 Heptachlor Epoxide	1024-57-3	0.037 U	0.037	0.18	1
01363 Methoxychlor	72-43-5	0.37 U	0.37	1.8	1
01363 Mirex	2385-85-5	0.072 U	0.072	0.37	1
01363 Toxaphene	8001-35-2	2.4 U	2.4	7.2	1

Various analytes in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported. Due to interfering peaks on the chromatogram from the presence of PCBs, the values reported represent the lowest reporting limits attainable. Despite numerous cleanup methods, our usual reporting limits were not attained.

Pesticides/PCBs	SW-846 8082	ug/kg	ug/kg	ug/kg	ug/kg
10225 Aroclor 5432	63496-31-1	1.1 U	1.1	3.6	1
10225 Aroclor 5442	12642-23-8	1.1 U	1.1	3.6	1
10225 Aroclor 5460	11126-42-4	7.6	1.1	3.6	1
10225 PCB-1016	12674-11-2	0.36 U	0.36	1.9	1
10225 PCB-1221	11104-28-2	0.55 U	0.55	1.9	1
10225 PCB-1232	11141-16-5	0.57 U	0.57	1.9	1
10225 PCB-1242	53469-21-9	0.55 U	0.55	1.9	1
10225 PCB-1248	12672-29-6	0.36 U	0.36	1.9	1
10225 PCB-1254	11097-69-1	3.2	0.36	1.9	1
10225 PCB-1260	11096-82-5	0.36 U	0.36	1.9	1
10225 PCB-1262	37324-23-5	0.36 U	0.36	1.9	1
10225 PCB-1268	11100-14-4	0.36 U	0.36	1.9	1

The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.

\*=This limit was used in the evaluation of the final result  
Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-029-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-029-SA5B-SS-0.0-0.5

LLI Sample # SW 6162871  
 LLI Group # 1225035  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 14:27

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3314 SDG#: DE033-14

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Metals</b>							
	<b>SW-846 6010B</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
01643	Aluminum	7429-90-5	12,200	5.34	21.2		1
07914	Boron	7440-42-8	3.84 J	0.945	5.31		1
01650	Calcium	7440-70-2	4,400	6.51	21.2		1
01654	Iron	7439-89-6	17,100	5.00	21.2		1
01656	Lithium	7439-93-2	15.3	0.23	2.1		1
01657	Magnesium	7439-95-4	3,790	2.70	10.6		1
06958	Manganese	7439-96-5	215	0.0829	0.531		1
10145	Phosphorus	7723-14-0	423	0.595	10.6		1
01662	Potassium	7440-09-7	2,600	19.1	53.1		1
01667	Sodium	7440-23-5	141	39.6	106		1
07968	Strontium	7440-24-6	28.9	0.0659	0.531		1
06969	Tin	7440-31-5	2.12 J	1.06	10.6		1
06970	Titanium	7440-32-6	964	0.815	2.15		2
10146	Zirconium	7440-67-7	2.75 J	0.892	5.31		1
	<b>SW-846 6020</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
06124	Antimony	7440-36-0	0.112 J	0.0625	0.208		2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	10.0	0.0625	0.417		2
06126	Barium	7440-39-3	90.5	0.113	0.417		2
06127	Beryllium	7440-41-7	0.429	0.0167	0.104		2
06128	Cadmium	7440-43-9	0.134	0.0375	0.104		2
06131	Chromium	7440-47-3	26.1	0.125	0.417		2
06132	Cobalt	7440-48-4	5.77	0.0208	0.104		2
06133	Copper	7440-50-8	11.4	0.0688	0.417		2
06135	Lead	7439-92-1	6.49	0.0108	0.208		2
06138	Molybdenum	7439-98-7	1.84	0.0521	0.104		2
06139	Nickel	7440-02-0	13.3	0.104	0.417		2
06141	Selenium	7782-49-2	0.891	0.0417	0.417		2
06142	Silver	7440-22-4	0.0278 J	0.0125	0.104		2
06145	Thallium	7440-28-0	0.250	0.0313	0.104		2
06148	Vanadium	7440-62-2	40.7	0.0229	0.104		2
06149	Zinc	7440-66-6	55.7	0.584	3.13		2
	<b>SW-846 7471A</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
00159	Mercury	7439-97-6	0.0041 J	0.0029	0.101		1
<b>Wet Chemistry</b>							
	<b>EPA 300.0</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	5.2	0.88	1.1		1
	<b>EPA 314.0</b>		<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10147	7a Perchlorate EPA 314.0	14797-73-0	30.9 J	9.8	32.8		1
	<b>SW-846 7199</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
05892	3a Cr VI by EPA 7199	18540-29-9	0.22 U	0.22	1.1		1

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Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-029-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-029-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162871  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 14:27

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3314 SDG#: DE033-14

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Wet Chemistry ASTM D1498</b>							
01821	Oxidation Reduction Potential	n.a.	442	10.0	10.0	mV	1
The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.							
<b>SW-846 9045C modified</b>							
			Std. Units	Std. Units	Std. Units	Std. Units	
00394	22a pH by 9045C	n.a.	8.40	0.0100	0.0100		1
<b>Wet Chemistry EPA 160.3 modified</b>							
11624	28a Moisture Content by 160.3	n.a.	8.6	0.50	0.50	%	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.							

### General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10348SLG026	12/22/2010 13:44	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10349SLF026	12/21/2010 11:20	Mark A Clark	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10349SLF026	12/16/2010 07:00	Joseph S Feister	1
00381	BNA Soil Sonication	SW-846 3550B	1	10348SLG026	12/15/2010 07:05	Joseph S Feister	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	103490014A	12/18/2010 00:46	John W Perkins	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	103500011A	12/23/2010 20:23	Jamie L Brillhart	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	103490013A	12/19/2010 12:20	Lindsey K Lafferty	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	2	103500011A	12/16/2010 16:50	JoElla L Rice	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	103490013A	12/15/2010 21:05	Karen L Beyer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	103490014A	12/16/2010 02:10	David V Hershey Jr	1
01643	Aluminum	SW-846 6010B	1	103495708002	12/16/2010 17:31	Eric L Eby	1
07914	Boron	SW-846 6010B	1	103495708002	12/16/2010 05:31	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	103495708002	12/16/2010 05:31	Tara L Snyder	1
01654	Iron	SW-846 6010B	1	103495708002	12/16/2010 05:31	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	103495708002	12/16/2010 05:31	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	103495708002	12/16/2010 05:31	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	103495708002	12/16/2010 05:31	Tara L Snyder	1

\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-029-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-029-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162871  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 14:27

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3314 SDG#: DE033-14

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10145	Phosphorus	SW-846 6010B	1	103495708002	12/16/2010 05:31	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	103495708002	12/16/2010 05:31	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	103495708002	12/16/2010 05:31	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	103495708002	12/16/2010 05:31	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	103495708002	12/16/2010 05:31	Tara L Snyder	1
06970	Titanium	SW-846 6010B	1	103505708003	12/20/2010 17:26	John P Hook	2
10146	Zirconium	SW-846 6010B	1	103495708002	12/16/2010 05:31	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	103491026002A	12/17/2010 15:50	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103491026002A	12/17/2010 15:50	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103491026002D	12/17/2010 15:50	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103491026002A	12/17/2010 15:50	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103491026002A	12/17/2010 15:50	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103491026002A	12/17/2010 15:50	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103491026002A	12/17/2010 15:50	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103491026002A	12/17/2010 15:50	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103491026002A	12/17/2010 15:50	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103491026002C	12/17/2010 15:50	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103491026002A	12/17/2010 15:50	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103491026002B	12/17/2010 15:50	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103491026002A	12/17/2010 15:50	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103491026002A	12/17/2010 15:50	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103491026002A	12/17/2010 15:50	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	103491026002A	12/17/2010 15:50	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	103495711002	12/15/2010 20:02	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	103495708002	12/15/2010 10:35	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	103505708003	12/17/2010 19:17	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103491026002	12/15/2010 11:08	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	103495711002	12/15/2010 12:17	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10352352201B	12/20/2010 17:15	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10356356201A	12/27/2010 17:26	Ashley M Adams	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	10356243201A	12/28/2010 21:31	Ashley M Adams	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10352352201B	12/19/2010 16:30	Joseph E McKenzie	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10356356201A	12/22/2010 11:15	Nancy J Shoop	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10348182101B	12/14/2010 09:00	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10348039401B	12/14/2010 09:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10356243201A	12/22/2010 20:10	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	2	10347162401B	12/14/2010 05:05	William C Schwebel	1

\*—This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.



# Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: SL-034-SA5B-SS-0.0-0.5 Soil  
SSFL Area IV Collocated Soil Sampling  
SL-034-SA5B-SS-0.0-0.5

LLI Sample # SW 6162872  
LLI Group # 1225035  
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 13:25

CDM Federal Programs Corp.  
14420 Albemarle Point Place  
Suite 210  
Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3315 SDG#: DE033-15

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04688	Aniline	62-53-3	180	U 180	550		1
04688	Benzidine	92-87-5	1,300	U 1,300	3,600		1
04688	Benzoic acid	65-85-0	180	U 180	550		1
04688	Benzyl alcohol	100-51-6	180	U 180	550		1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180		1
04688	Carbazole	86-74-8	18	U 18	180		1
04688	4-Chloro-3-methylphenol	59-50-7	36	U 36	180		1
04688	4-Chloroaniline	106-47-8	73	U 73	180		1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180		1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180		1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180		1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180		1
04688	2-Chlorophenol	95-57-8	18	U 18	180		1
04688	4-Chlorophenyl-phenylether	7005-72-3	36	U 36	180		1
04688	Dibenzofuran	132-64-9	18	U 18	180		1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180		1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180		1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180		1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	360		1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180		1
04688	2,4-Dimethylphenol	105-67-9	36	U 36	180		1
04688	3,5-Dimethylphenol	108-68-9	36	U 36	180		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	550		1
04688	2,4-Dinitrophenol	51-28-5	730	U 730	2,200		1
04688	2,4-Dinitrotoluene	121-14-2	36	U 36	180		1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180		1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180		1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	20	J 18	360		1
04688	Hexachlorobenzene	118-74-1	18	U 18	180		1
04688	Hexachlorobutadiene	87-68-3	73	U 73	180		1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	550		1
04688	Hexachloroethane	67-72-1	18	U 18	180		1
04688	Isophorone	78-59-1	18	U 18	180		1
04688	2-Methylphenol	95-48-7	36	U 36	180		1
04688	4-Methylphenol	106-44-5	36	U 36	180		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	18	U 18	180		1
04688	3-Nitroaniline	99-09-2	36	U 36	180		1
04688	4-Nitroaniline	100-01-6	73	U 73	180		1
04688	Nitrobenzene	98-95-3	18	U 18	180		1
04688	2-Nitrophenol	88-75-5	18	U 18	180		1
04688	4-Nitrophenol	100-02-7	180	U 180	550		1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180		1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	180	U 180	550		1

\*=This limit was used in the evaluation of the final result  
Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-034-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-034-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162872  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 13:25

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3315 SDG#: DE033-15

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS Semivolatiles</b>	<b>SW-846 8270C</b>		<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04688	Phenol	108-95-2	18	U 18	180		1
04688	1,2,4-Trichlorobenzene	120-82-1	18	U 18	180		1
04688	2,4,5-Trichlorophenol	95-95-4	36	U 36	180		1
04688	2,4,6-Trichlorophenol	88-06-2	36	U 36	180		1

The LCS recovery is outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance:  
 bis(2-chloroisopropyl)ether

GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	ug/kg
10138	Acenaphthene	83-32-9	0.73	U	0.73	1.8
10138	Acenaphthylene	208-96-8	0.36	U	0.36	1.8
10138	Anthracene	120-12-7	0.36	U	0.36	1.8
10138	Benzo(a)anthracene	56-55-3	0.73	U	0.73	1.8
10138	Benzo(a)pyrene	50-32-8	0.98	J	0.73	1.8
10138	Benzo(b)fluoranthene	205-99-2	2.6	U	0.73	1.8
10138	Benzo(g,h,i)perylene	191-24-2	0.73	U	0.73	1.8
10138	Benzo(k)fluoranthene	207-08-9	0.73	U	0.73	1.8
10138	Butylbenzylphthalate	85-68-7	8.3	J	6.6	20
10138	Di-n-butylphthalate	84-74-2	6.6	U	6.6	20
10138	Chrysene	218-01-9	1.7	J	0.36	1.8
10138	Dibenz(a,h)anthracene	53-70-3	0.73	U	0.73	1.8
10138	Diethylphthalate	84-66-2	6.6	U	6.6	20
10138	Dimethylphthalate	131-11-3	6.6	U	6.6	20
10138	Fluoranthene	206-44-0	1.9	U	0.73	1.8
10138	Fluorene	86-73-7	0.73	U	0.73	1.8
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.73	U	0.73	1.8
10138	1-Methylnaphthalene	90-12-0	0.73	U	0.73	1.8
10138	2-Methylnaphthalene	91-57-6	0.73	U	0.73	1.8
10138	Naphthalene	91-20-3	0.73	U	0.73	1.8
10138	N-Nitrosodimethylamine	62-75-9	0.73	U	0.73	1.8
10138	Di-n-octylphthalate	117-84-0	6.6	U	6.6	20
10138	Phenanthrene	85-01-8	0.88	J	0.73	1.8
10138	Pyrene	129-00-0	1.6	J	0.73	1.8

Herbicides	SW-846 8151A	ug/kg	ug/kg	ug/kg	ug/kg	
10401	2,4-D	94-75-7	1.3	U	1.3	3.9
10401	Dalapon	75-99-0	4.8	U	4.8	9.8
10401	2,4-DB	94-82-6	8.5	U	0.68	1.9
10401	Dicamba	1918-00-9	0.90	J	0.44	1.3
10401	Dinoseb	88-85-7	0.87	U	0.87	2.6
10401	2,4-DP (Dichlorprop)	120-36-5	0.87	U	0.87	1.9
10401	MCPA	94-74-6	810	U	83	270
10401	MCPP (Mecoprop)	93-65-2	82	U	82	270
10401	2,4,5-T	93-76-5	0.090	U	0.090	0.19
10401	2,4,5-TP	93-72-1	0.082	U	0.082	0.19

The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported.

\*=This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-034-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-034-SA5B-SS-0.0-0.5

LLI Sample # SW 6162872  
 LLI Group # 1225035  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 13:25

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3315 SDG#: DE033-15

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Pesticides/PCBs</b>		<b>SW-846 8081A</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
01363	Aldrin	309-00-2	0.072 U	0.072	0.18		1
01363	Alpha BHC	319-84-6	0.037 U	0.037	0.18		1
01363	Beta BHC	319-85-7	0.066 U	0.066	0.18		1
01363	Gamma BHC - Lindane	58-89-9	0.037 U	0.037	0.18		1
01363	Chlordane	57-74-9	0.87 U	0.87	3.7		1
01363	p,p-DDD	72-54-8	0.072 U	0.072	0.37		1
01363	p,p-DDE	72-55-9	0.072 U	0.072	0.37		1
01363	p,p-DDT	50-29-3	0.13 J	0.072	0.37		1
01363	Delta BHC	319-86-8	0.039 U	0.039	0.18		1
01363	Dieldrin	60-57-1	0.072 U	0.072	0.37		1
01363	Endosulfan I	959-98-8	0.048 U	0.048	0.18		1
01363	Endosulfan II	33213-65-9	0.072 U	0.072	0.37		1
01363	Endosulfan Sulfate	1031-07-8	0.072 U	0.072	0.37		1
01363	Endrin	72-20-8	0.072 U	0.072	0.37		1
01363	Endrin Aldehyde	7421-93-4	0.072 U	0.072	0.37		1
01363	Endrin Ketone	53494-70-5	0.072 U	0.072	0.37		1
01363	Heptachlor	76-44-8	0.066 U	0.066	0.18		1
01363	Heptachlor Epoxide	1024-57-3	0.037 U	0.037	0.18		1
01363	Methoxychlor	72-43-5	0.37 U	0.37	1.8		1
01363	Mirex	2385-85-5	0.10 J	0.072	0.37		1
01363	Toxaphene	8001-35-2	2.4 U	2.4	7.2		1

The LCS recovery for p,p-DDT and methoxychlor are outside the QC limits. Results from the reextraction are within the limits for p,p-DDT and methoxychlor. The hold time had expired prior to the reextraction so all results are reported from the original extract. Similar results were obtained in both extracts for p,p-DDT and methoxychlor. Various analytes in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported.

<b>Pesticides/PCBs</b>		<b>SW-846 8082</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.6	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.6	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.6	1
10225	PCB-1016	12674-11-2	0.36 U	0.36	1.9	1
10225	PCB-1221	11104-28-2	0.55 U	0.55	1.9	1
10225	PCB-1232	11141-16-5	0.57 U	0.57	1.9	1
10225	PCB-1242	53469-21-9	0.55 U	0.55	1.9	1
10225	PCB-1248	12672-29-6	0.36 U	0.36	1.9	1
10225	PCB-1254	11097-69-1	0.36 U	0.36	1.9	1
10225	PCB-1260	11096-82-5	0.36 U	0.36	1.9	1
10225	PCB-1262	37324-23-5	0.36 U	0.36	1.9	1
10225	PCB-1268	11100-14-4	0.36 U	0.36	1.9	1

The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.

<b>Metals</b>		<b>SW-846 6010B</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>
01643	Aluminum	7429-90-5	12,100	5.24	20.8	1
07914	Boron	7440-42-8	3.87 J	0.926	5.20	1
01650	Calcium	7440-70-2	3,900	6.38	20.8	1

\*=This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-034-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-034-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162872  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 13:25

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3315 SDG#: DE033-15

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Metals</b>							
	<b>SW-846 6010B</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
01654	Iron	7439-89-6	18,000	4.90	20.8		1
01656	Lithium	7439-93-2	17.7	0.23	2.1		1
01657	Magnesium	7439-95-4	3,750	2.64	10.4		1
06958	Manganese	7439-96-5	232	0.0812	0.520		1
10145	Phosphorus	7723-14-0	445	0.583	10.4		1
01662	Potassium	7440-09-7	3,030	18.7	52.0		1
01667	Sodium	7440-23-5	95.1 J	38.8	104		1
07968	Strontium	7440-24-6	23.6	0.0645	0.520		1
06969	Tin	7440-31-5	1.87 J	1.04	10.4		1
06970	Titanium	7440-32-6	1,040	0.822	2.16		2
10146	Zirconium	7440-67-7	1.98 J	0.874	5.20		1
	<b>SW-846 6020</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
06124	Antimony	7440-36-0	0.138 J	0.0637	0.212		2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	5.04	0.0637	0.424		2
06126	Barium	7440-39-3	113	0.115	0.424		2
06127	Beryllium	7440-41-7	0.508	0.0170	0.106		2
06128	Cadmium	7440-43-9	0.177	0.0382	0.106		2
06131	Chromium	7440-47-3	23.0	0.127	0.424		2
06132	Cobalt	7440-48-4	6.55	0.0212	0.106		2
06133	Copper	7440-50-8	10.7	0.0700	0.424		2
06135	Lead	7439-92-1	7.21	0.0110	0.212		2
06138	Molybdenum	7439-98-7	1.10	0.0531	0.106		2
06139	Nickel	7440-02-0	13.7	0.106	0.424		2
06141	Selenium	7782-49-2	0.229 J	0.0424	0.424		2
06142	Silver	7440-22-4	0.0315 J	0.0127	0.106		2
06145	Thallium	7440-28-0	0.314	0.0318	0.106		2
06148	Vanadium	7440-62-2	38.9	0.0233	0.106		2
06149	Zinc	7440-66-6	72.8	0.594	3.18		2
	<b>SW-846 7471A</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
00159	Mercury	7439-97-6	0.0031 U	0.0031	0.108		1
<b>Wet Chemistry</b>							
	<b>EPA 300.0</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	2.0	0.87	1.1		1
	<b>EPA 314.0</b>		<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.8 U	9.8	32.8		1
	<b>SW-846 7199</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
05892	3a Cr VI by EPA 7199	18540-29-9	0.22 U	0.22	1.1		1
	<b>ASTM D1498</b>		<b>mV</b>	<b>mV</b>	<b>mV</b>	<b>mV</b>	
01821	Oxidation Reduction Potential	n.a.	457	10.0	10.0		1

\*-This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-034-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-034-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162872  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 13:25

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3315 SDG#: DE033-15

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Wet Chemistry</b>		<b>ASTM D1498</b>	mV	mV	mV	mV	
The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.							
		<b>SW-846 9045C modified</b>	Std. Units	Std. Units	Std. Units	Std. Units	
00394	22a pH by 9045C	n.a.	7.95	0.0100	0.0100		1
<b>Wet Chemistry</b>		<b>EPA 160.3 modified</b>	%	%	%	%	
11624	28a Moisture Content by 160.3	n.a.	8.5	0.50	0.50		1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.							

### General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10348SLG026	12/22/2010 14:10	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10349SLF026	12/21/2010 11:53	Mark A Clark	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10349SLF026	12/16/2010 07:00	Joseph S Feister	1
00381	BNA Soil Sonication	SW-846 3550B	1	10348SLG026	12/15/2010 07:05	Joseph S Feister	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	103490014A	12/18/2010 01:14	John W Perkins	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	103500011A	12/23/2010 20:37	Jamie L Brillhart	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	103490013A	12/19/2010 12:39	Lindsey K Lafferty	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	103500011A	12/16/2010 16:50	JoElla L Rice	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	103490013A	12/15/2010 21:05	Karen L Beyer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	103490014A	12/16/2010 02:10	David V Hershey Jr	1
01643	Aluminum	SW-846 6010B	1	103495708002	12/16/2010 17:35	Eric L Eby	1
07914	Boron	SW-846 6010B	1	103495708002	12/16/2010 05:35	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	103495708002	12/16/2010 05:35	Tara L Snyder	1
01654	Iron	SW-846 6010B	1	103495708002	12/16/2010 05:35	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	103495708002	12/16/2010 05:35	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	103495708002	12/16/2010 05:35	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	103495708002	12/16/2010 05:35	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	103495708002	12/16/2010 05:35	Tara L Snyder	1

\*=This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-034-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-034-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162872  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 13:25

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3315 SDG#: DE033-15

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01662	Potassium	SW-846 6010B	1	103495708002	12/16/2010 05:35	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	103495708002	12/16/2010 05:35	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	103495708002	12/16/2010 05:35	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	103495708002	12/16/2010 05:35	Tara L Snyder	1
06970	Titanium	SW-846 6010B	1	103505708003	12/20/2010 17:30	John P Hook	2
10146	Zirconium	SW-846 6010B	1	103495708002	12/16/2010 05:35	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	103491026002A	12/17/2010 15:53	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103491026002A	12/17/2010 15:53	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103491026002D	12/17/2010 15:53	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103491026002A	12/17/2010 15:53	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103491026002A	12/21/2010 18:13	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103491026002A	12/17/2010 15:53	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103491026002A	12/17/2010 15:53	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103491026002A	12/17/2010 15:53	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103491026002A	12/17/2010 15:53	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103491026002C	12/17/2010 15:53	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103491026002A	12/17/2010 15:53	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103491026002B	12/17/2010 15:53	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103491026002A	12/17/2010 15:53	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103491026002A	12/17/2010 15:53	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103491026002A	12/17/2010 15:53	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	103491026002A	12/17/2010 15:53	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	103495711002	12/15/2010 20:03	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	103495708002	12/15/2010 10:35	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	103505708003	12/17/2010 19:17	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103491026002	12/15/2010 11:08	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	103495711002	12/15/2010 12:17	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10352352201B	12/20/2010 17:58	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10356356201A	12/27/2010 17:50	Ashley M Adams	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	10356243201A	12/28/2010 21:44	Ashley M Adams	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10352352201B	12/19/2010 16:30	Joseph E McKenzie	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10356356201A	12/22/2010 11:15	Nancy J Shoop	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10348182101B	12/14/2010 09:00	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10348039401B	12/14/2010 09:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10356243201A	12/22/2010 20:10	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	2	10347162401B	12/14/2010 05:05	William C Schwebel	1

\*—This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-035-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-035-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162873  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 14:00

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3316 SDG#: DE033-16

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04688	Aniline	62-53-3	180	U 180	550		1
04688	Benzidine	92-87-5	1,300	U 1,300	3,700		1
04688	Benzoic acid	65-85-0	180	U 180	550		1
04688	Benzyl alcohol	100-51-6	180	U 180	550		1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180		1
04688	Carbazole	86-74-8	18	U 18	180		1
04688	4-Chloro-3-methylphenol	59-50-7	37	U 37	180		1
04688	4-Chloroaniline	106-47-8	74	U 74	180		1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180		1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180		1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180		1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180		1
04688	2-Chlorophenol	95-57-8	18	U 18	180		1
04688	4-Chlorophenyl-phenylether	7005-72-3	37	U 37	180		1
04688	Dibenzofuran	132-64-9	18	U 18	180		1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180		1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180		1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180		1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	370		1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180		1
04688	2,4-Dimethylphenol	105-67-9	37	U 37	180		1
04688	3,5-Dimethylphenol	108-68-9	37	U 37	180		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	550		1
04688	2,4-Dinitrophenol	51-28-5	740	U 740	2,200		1
04688	2,4-Dinitrotoluene	121-14-2	37	U 37	180		1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180		1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180		1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	21	J 18	370		1
04688	Hexachlorobenzene	118-74-1	18	U 18	180		1
04688	Hexachlorobutadiene	87-68-3	74	U 74	180		1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	550		1
04688	Hexachloroethane	67-72-1	18	U 18	180		1
04688	Isophorone	78-59-1	18	U 18	180		1
04688	2-Methylphenol	95-48-7	37	U 37	180		1
04688	4-Methylphenol	106-44-5	37	U 37	180		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	18	U 18	180		1
04688	3-Nitroaniline	99-09-2	37	U 37	180		1
04688	4-Nitroaniline	100-01-6	74	U 74	180		1
04688	Nitrobenzene	98-95-3	18	U 18	180		1
04688	2-Nitrophenol	88-75-5	18	U 18	180		1
04688	4-Nitrophenol	100-02-7	180	U 180	550		1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180		1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	180	U 180	550		1

\*=This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.



# Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

**Sample Description:** SL-035-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-035-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162873  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 14:00

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3316 SDG#: DE033-16

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS Semivolatiles SW-846 8270C</b>			ug/kg	ug/kg	ug/kg	ug/kg	
04688	Phenol	108-95-2	18	U 18	180		1
04688	1,2,4-Trichlorobenzene	120-82-1	18	U 18	180		1
04688	2,4,5-Trichlorophenol	95-95-4	37	U 37	180		1
04688	2,4,6-Trichlorophenol	88-06-2	37	U 37	180		1

The LCS recovery is outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: bis(2-chloroisopropyl)ether

GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	ug/kg
10138	Acenaphthene	83-32-9	0.74	U 0.74	1.8	1
10138	Acenaphthylene	208-96-8	0.37	U 0.37	1.8	1
10138	Anthracene	120-12-7	0.37	U 0.37	1.8	1
10138	Benzo(a)anthracene	56-55-3	0.74	U 0.74	1.8	1
10138	Benzo(a)pyrene	50-32-8	0.74	U 0.74	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	1.4	J 0.74	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	0.74	U 0.74	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	0.74	U 0.74	1.8	1
10138	Butylbenzylphthalate	85-68-7	6.7	U 6.7	20	1
10138	Di-n-butylphthalate	84-74-2	7.5	J 6.7	20	1
10138	Chrysene	218-01-9	1.3	J 0.37	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.74	U 0.74	1.8	1
10138	Diethylphthalate	84-66-2	6.7	U 6.7	20	1
10138	Dimethylphthalate	131-11-3	6.7	U 6.7	20	1
10138	Fluoranthene	206-44-0	1.5	J 0.74	1.8	1
10138	Fluorene	86-73-7	0.74	U 0.74	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.74	U 0.74	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.74	U 0.74	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.74	U 0.74	1.8	1
10138	Naphthalene	91-20-3	0.74	U 0.74	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.74	U 0.74	1.8	1
10138	Di-n-octylphthalate	117-84-0	6.7	U 6.7	20	1
10138	Phenanthrene	85-01-8	0.90	J 0.74	1.8	1
10138	Pyrene	129-00-0	1.2	J 0.74	1.8	1

Herbicides	SW-846 8151A	ug/kg	ug/kg	ug/kg	ug/kg
10401	2,4-D	94-75-7	1.3	U 1.3	4.0
10401	Dalapon	75-99-0	4.9	U 4.9	10
10401	2,4-DB	94-82-6	3.4	U 0.69	1.9
10401	Dicamba	1918-00-9	0.44	U 0.44	1.3
10401	Dinoseb	88-85-7	0.89	U 0.89	2.7
10401	2,4-DP (Dichlorprop)	120-36-5	0.89	U 0.89	1.9
10401	MCPA	94-74-6	330	U 330	330
10401	MCPP (Mecoprop)	93-65-2	83	U 83	280
10401	2,4,5-T	93-76-5	0.091	U 0.091	0.19
10401	2,4,5-TP	93-72-1	0.083	U 0.083	0.19

The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported.

\*=This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-035-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-035-SA5B-SS-0.0-0.5

LLI Sample # SW 6162873  
 LLI Group # 1225035  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 14:00

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3316 SDG#: DE033-16

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
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When the concentration detected on the primary and confirmation column is significantly different, some uncertainty as to the presence and concentration of the compound exists. In these cases, the reporting limits have been raised. The following compounds were affected: MCPA.

Pesticides/PCBs		SW-846 8081A	ug/kg	U	ug/kg	ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.073	U	0.073	0.18		1
01363	Alpha BHC	319-84-6	0.038	U	0.038	0.18		1
01363	Beta BHC	319-85-7	0.067	U	0.067	0.18		1
01363	Gamma BHC - Lindane	58-89-9	0.038	U	0.038	0.18		1
01363	Chlordane	57-74-9	0.89	U	0.89	3.8		1
01363	p,p-DDD	72-54-8	0.073	U	0.073	0.38		1
01363	p,p-DDE	72-55-9	0.073	U	0.073	0.38		1
01363	p,p-DDT	50-29-3	0.14	U	0.14	0.38		1
01363	Delta BHC	319-86-8	0.040	U	0.040	0.18		1
01363	Dieldrin	60-57-1	0.073	U	0.073	0.38		1
01363	Endosulfan I	959-98-8	0.049	U	0.049	0.18		1
01363	Endosulfan II	33213-65-9	0.073	U	0.073	0.38		1
01363	Endosulfan Sulfate	1031-07-8	0.073	U	0.073	0.38		1
01363	Endrin	72-20-8	0.073	U	0.073	0.38		1
01363	Endrin Aldehyde	7421-93-4	0.073	U	0.073	0.38		1
01363	Endrin Ketone	53494-70-5	0.073	U	0.073	0.38		1
01363	Heptachlor	76-44-8	0.067	U	0.067	0.18		1
01363	Heptachlor Epoxide	1024-57-3	0.038	U	0.038	0.18		1
01363	Methoxychlor	72-43-5	0.38	U	0.38	1.8		1
01363	Mirex	2385-85-5	0.073	U	0.073	0.38		1
01363	Toxaphene	8001-35-2	2.4	U	2.4	7.3		1

Various analytes in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported.

Due to interfering peaks on the chromatogram from the presence of PCBs, the values reported represent the lowest reporting limits attainable. Despite numerous cleanup methods, our usual reporting limits were not attained.

Pesticides/PCBs		SW-846 8082	ug/kg	U	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1	U	1.1	3.7		1
10225	Aroclor 5442	12642-23-8	1.1	U	1.1	3.7		1
10225	Aroclor 5460	11126-42-4	1.1	U	1.1	3.7		1
10225	PCB-1016	12674-11-2	0.37	U	0.37	1.9		1
10225	PCB-1221	11104-28-2	0.55	U	0.55	1.9		1
10225	PCB-1232	11141-16-5	0.58	U	0.58	1.9		1
10225	PCB-1242	53469-21-9	0.55	U	0.55	1.9		1
10225	PCB-1248	12672-29-6	0.37	U	0.37	1.9		1
10225	PCB-1254	11097-69-1	0.37	U	0.37	1.9		1
10225	PCB-1260	11096-82-5	0.58	J	0.37	1.9		1
10225	PCB-1262	37324-23-5	0.37	U	0.37	1.9		1
10225	PCB-1268	11100-14-4	0.37	U	0.37	1.9		1

The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.

\*-This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-035-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-035-SA5B-SS-0.0-0.5

LLI Sample # SW 6162873  
 LLI Group # 1225035  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 14:00

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3316 SDG#: DE033-16

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Metals</b>							
	<b>SW-846 6010B</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
01643	Aluminum	7429-90-5	11,600	5.47	21.7		1
07914	Boron	7440-42-8	3.94 J	0.967	5.43		1
01650	Calcium	7440-70-2	4,030	6.66	21.7		1
01654	Iron	7439-89-6	14,800	5.12	21.7		1
01656	Lithium	7439-93-2	12.3	0.24	2.2		1
01657	Magnesium	7439-95-4	3,570	2.76	10.9		1
06958	Manganese	7439-96-5	182	0.0848	0.543		1
10145	Phosphorus	7723-14-0	480	0.609	10.9		1
01662	Potassium	7440-09-7	2,240	19.6	54.3		1
01667	Sodium	7440-23-5	105 J	40.5	109		1
07968	Strontium	7440-24-6	35.4	0.0674	0.543		1
06969	Tin	7440-31-5	1.63 J	1.09	10.9		1
06970	Titanium	7440-32-6	934	0.413	1.09		1
10146	Zirconium	7440-67-7	4.03 J	0.913	5.43		1
	<b>SW-846 6020</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
06124	Antimony	7440-36-0	0.0787 J	0.0640	0.213		2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	5.94	0.0640	0.426		2
06126	Barium	7440-39-3	106	0.115	0.426		2
06127	Beryllium	7440-41-7	0.456	0.0171	0.107		2
06128	Cadmium	7440-43-9	0.164	0.0384	0.107		2
06131	Chromium	7440-47-3	34.0	0.128	0.426		2
06132	Cobalt	7440-48-4	7.16	0.0213	0.107		2
06133	Copper	7440-50-8	10.8	0.0704	0.426		2
06135	Lead	7439-92-1	5.89	0.0111	0.213		2
06138	Molybdenum	7439-98-7	1.83	0.0533	0.107		2
06139	Nickel	7440-02-0	17.7	0.107	0.426		2
06141	Selenium	7782-49-2	0.174 J	0.0426	0.426		2
06142	Silver	7440-22-4	0.0195 J	0.0128	0.107		2
06145	Thallium	7440-28-0	0.262	0.0320	0.107		2
06148	Vanadium	7440-62-2	44.2	0.0235	0.107		2
06149	Zinc	7440-66-6	59.3	0.597	3.20		2
	<b>SW-846 7471A</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
00159	Mercury	7439-97-6	0.0031 U	0.0031	0.106		1
<b>Wet Chemistry</b>							
	<b>EPA 300.0</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	3.4	0.89	1.1		1
	<b>EPA 314.0</b>		<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10147	7a Perchlorate EPA 314.0	14797-73-0	10 U	10	33.3		1
	<b>SW-846 7199</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
05892	3a Cr VI by EPA 7199	18540-29-9	0.36 J	0.22	1.1		1

\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-035-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-035-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162873  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 14:00

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3316 SDG#: DE033-16

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Wet Chemistry</b>		<b>ASTM D1498</b>	mV	mV	mV	mV	
01821	Oxidation Reduction Potential	n.a.	424	10.0	10.0		1
	The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.						
		<b>SW-846 9045C modified</b>	<b>Std. Units</b>	<b>Std. Units</b>	<b>Std. Units</b>	<b>Std. Units</b>	
00394	22a pH by 9045C	n.a.	7.93	0.0100	0.0100		1
<b>Wet Chemistry</b>		<b>EPA 160.3 modified</b>	%	%	%	%	
11624	28a Moisture Content by 160.3	n.a.	9.8	0.50	0.50		1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

### General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10348SLG026	12/23/2010 02:17	Ryan P Byrne	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10349SLF026	12/21/2010 12:27	Mark A Clark	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10349SLF026	12/16/2010 07:00	Joseph S Feister	1
00381	BNA Soil Sonication	SW-846 3550B	1	10348SLG026	12/15/2010 07:05	Joseph S Feister	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	103490014A	12/18/2010 01:42	John W Perkins	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	103500011A	12/23/2010 20:52	Jamie L Brillhart	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	103490013A	12/19/2010 12:57	Lindsey K Lafferty	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	2	103500011A	12/16/2010 16:50	JoElla L Rice	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	103490013A	12/15/2010 21:05	Karen L Beyer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	103490014A	12/16/2010 02:10	David V Hershey Jr	1
01643	Aluminum	SW-846 6010B	1	103495708002	12/16/2010 17:38	Eric L Eby	1
07914	Boron	SW-846 6010B	1	103495708002	12/16/2010 05:39	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	103495708002	12/16/2010 05:39	Tara L Snyder	1
01654	Iron	SW-846 6010B	1	103495708002	12/16/2010 05:39	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	103495708002	12/16/2010 05:39	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	103495708002	12/16/2010 05:39	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	103495708002	12/16/2010 05:39	Tara L Snyder	1

\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-035-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-035-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162873  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 14:00

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3316 SDG#: DE033-16

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10145	Phosphorus	SW-846 6010B	1	103495708002	12/16/2010 05:39	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	103495708002	12/16/2010 05:39	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	103495708002	12/16/2010 05:39	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	103495708002	12/16/2010 05:39	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	103495708002	12/16/2010 05:39	Tara L Snyder	1
06970	Titanium	SW-846 6010B	1	103505708003	12/20/2010 17:33	John P Hook	1
10146	Zirconium	SW-846 6010B	1	103495708002	12/16/2010 05:39	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	103491026002A	12/17/2010 15:56	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103491026002A	12/17/2010 15:56	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103491026002D	12/17/2010 15:56	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103491026002A	12/17/2010 15:56	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103491026002A	12/17/2010 15:56	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103491026002A	12/17/2010 15:56	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103491026002A	12/17/2010 15:56	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103491026002A	12/17/2010 15:56	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103491026002A	12/17/2010 15:56	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103491026002C	12/17/2010 15:56	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103491026002A	12/17/2010 15:56	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103491026002B	12/17/2010 15:56	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103491026002A	12/17/2010 15:56	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103491026002A	12/17/2010 15:56	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103491026002A	12/17/2010 15:56	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	103491026002A	12/17/2010 15:56	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	103495711002	12/15/2010 20:05	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	103495708002	12/15/2010 10:35	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	103505708003	12/17/2010 19:17	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103491026002	12/15/2010 11:08	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	103495711002	12/15/2010 12:17	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10352352201B	12/20/2010 18:12	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10356356201A	12/27/2010 18:14	Ashley M Adams	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	10356243201A	12/28/2010 21:57	Ashley M Adams	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10352352201B	12/19/2010 16:30	Joseph E McKenzie	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10356356201A	12/22/2010 11:15	Nancy J Shoop	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10348182101B	12/14/2010 09:00	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10348039401B	12/14/2010 09:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10356243201A	12/22/2010 20:10	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	2	10347162401B	12/14/2010 05:05	William C Schwebel	1

\*—This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-036-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-036-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162874  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 13:45

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3317 SDG#: DE033-17

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04688	Aniline	62-53-3	180	U 180	550		1
04688	Benzidine	92-87-5	1,300	U 1,300	3,700		1
04688	Benzoic acid	65-85-0	180	U 180	550		1
04688	Benzyl alcohol	100-51-6	180	U 180	550		1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180		1
04688	Carbazole	86-74-8	18	U 18	180		1
04688	4-Chloro-3-methylphenol	59-50-7	37	U 37	180		1
04688	4-Chloroaniline	106-47-8	74	U 74	180		1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180		1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180		1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180		1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180		1
04688	2-Chlorophenol	95-57-8	18	U 18	180		1
04688	4-Chlorophenyl-phenylether	7005-72-3	37	U 37	180		1
04688	Dibenzofuran	132-64-9	18	U 18	180		1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180		1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180		1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180		1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	370		1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180		1
04688	2,4-Dimethylphenol	105-67-9	37	U 37	180		1
04688	3,5-Dimethylphenol	108-68-9	37	U 37	180		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	550		1
04688	2,4-Dinitrophenol	51-28-5	740	U 740	2,200		1
04688	2,4-Dinitrotoluene	121-14-2	37	U 37	180		1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180		1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180		1
04688	Hexachlorobenzene	118-74-1	18	U 18	180		1
04688	Hexachlorobutadiene	87-68-3	74	U 74	180		1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	550		1
04688	Hexachloroethane	67-72-1	18	U 18	180		1
04688	Isophorone	78-59-1	18	U 18	180		1
04688	2-Methylphenol	95-48-7	37	U 37	180		1
04688	4-Methylphenol	106-44-5	37	U 37	180		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	18	U 18	180		1
04688	3-Nitroaniline	99-09-2	37	U 37	180		1
04688	4-Nitroaniline	100-01-6	74	U 74	180		1
04688	Nitrobenzene	98-95-3	18	U 18	180		1
04688	2-Nitrophenol	88-75-5	18	U 18	180		1
04688	4-Nitrophenol	100-02-7	180	U 180	550		1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180		1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	180	U 180	550		1
04688	Phenol	108-95-2	18	U 18	180		1

\*=This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-036-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-036-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162874  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 13:45

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3317 SDG#: DE033-17

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04688	1,2,4-Trichlorobenzene	120-82-1	18	U 18	180		1
04688	2,4,5-Trichlorophenol	95-95-4	37	U 37	180		1
04688	2,4,6-Trichlorophenol	88-06-2	37	U 37	180		1

The LCS recovery is outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance:  
 bis(2-chloroisopropyl)ether

GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	ug/kg
10138	Acenaphthene	83-32-9	0.74	U	0.74	1.8
10138	Acenaphthylene	208-96-8	0.37	U	0.37	1.8
10138	Anthracene	120-12-7	0.37	U	0.37	1.8
10138	Benzo(a)anthracene	56-55-3	2.1		0.74	1.8
10138	Benzo(a)pyrene	50-32-8	1.1	J	0.74	1.8
10138	Benzo(b)fluoranthene	205-99-2	2.9		0.74	1.8
10138	Benzo(g,h,i)perylene	191-24-2	0.74	U	0.74	1.8
10138	Benzo(k)fluoranthene	207-08-9	0.93	J	0.74	1.8
10138	Butylbenzylphthalate	85-68-7	7.9	J	6.6	20
10138	Di-n-butylphthalate	84-74-2	6.6	U	6.6	20
10138	Chrysene	218-01-9	2.1		0.37	1.8
10138	Dibenz(a,h)anthracene	53-70-3	0.74	U	0.74	1.8
10138	Diethylphthalate	84-66-2	6.6	U	6.6	20
10138	Dimethylphthalate	131-11-3	6.6	U	6.6	20
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	19	J	6.6	20
10138	Fluoranthene	206-44-0	2.2		0.74	1.8
10138	Fluorene	86-73-7	0.74	U	0.74	1.8
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.74	U	0.74	1.8
10138	1-Methylnaphthalene	90-12-0	0.74	U	0.74	1.8
10138	2-Methylnaphthalene	91-57-6	0.74	U	0.74	1.8
10138	Naphthalene	91-20-3	0.74	U	0.74	1.8
10138	N-Nitrosodimethylamine	62-75-9	0.74	U	0.74	1.8
10138	Di-n-octylphthalate	117-84-0	7.3	J	6.6	20
10138	Phenanthrene	85-01-8	1.1	J	0.74	1.8
10138	Pyrene	129-00-0	2.0		0.74	1.8

Bis(2-ethylhexyl)phthalate was detected in the method blank at a concentration of 6.5 ug/kg. The blank value was not subtracted from the analytical result.

Herbicides	SW-846 8151A	ug/kg	ug/kg	ug/kg	ug/kg	
10401	2,4-D	94-75-7	1.3	U	1.3	4.0
10401	Dalapon	75-99-0	4.9	U	4.9	10
10401	2,4-DB	94-82-6	9.6	U	9.6	9.6
10401	Dicamba	1918-00-9	0.57	J	0.44	1.3
10401	Dinoseb	88-85-7	0.88	U	0.88	2.7
10401	2,4-DP (Dichlorprop)	120-36-5	0.88	U	0.88	1.9
10401	MCPA	94-74-6	480		84	280
10401	MCPFP (Mecoprop)	93-65-2	590		83	280
10401	2,4,5-T	93-76-5	0.091	U	0.091	0.19
10401	2,4,5-TP	93-72-1	0.083	U	0.083	0.19

The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory

\*=This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-036-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-036-SA5B-SS-0.0-0.5

LLI Sample # SW 6162874  
 LLI Group # 1225035  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 13:45

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3317 SDG#: DE033-17

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
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statistical limits of 0-36%, the data is reported.

Due to interfering peaks on the chromatogram, the values reported represent the lowest reporting limits attainable.

Pesticides/PCBs		SW-846 8081A	ug/kg	U	ug/kg	ug/kg	ug/kg
01363	Aldrin	309-00-2	0.073	U	0.073	0.18	1
01363	Alpha BHC	319-84-6	0.038	U	0.038	0.18	1
01363	Beta BHC	319-85-7	0.066	U	0.066	0.18	1
01363	Gamma BHC - Lindane	58-89-9	0.038	U	0.038	0.18	1
01363	Chlordane	57-74-9	0.88	U	0.88	3.8	1
01363	p,p-DDD	72-54-8	0.073	U	0.073	0.38	1
01363	p,p-DDE	72-55-9	0.073	U	0.073	0.38	1
01363	p,p-DDT	50-29-3	0.073	U	0.073	0.38	1
01363	Delta BHC	319-86-8	0.040	U	0.040	0.18	1
01363	Dieldrin	60-57-1	0.073	U	0.073	0.38	1
01363	Endosulfan I	959-98-8	0.049	U	0.049	0.18	1
01363	Endosulfan II	33213-65-9	0.073	U	0.073	0.38	1
01363	Endosulfan Sulfate	1031-07-8	0.073	U	0.073	0.38	1
01363	Endrin	72-20-8	0.073	U	0.073	0.38	1
01363	Endrin Aldehyde	7421-93-4	0.073	U	0.073	0.38	1
01363	Endrin Ketone	53494-70-5	0.073	U	0.073	0.38	1
01363	Heptachlor	76-44-8	0.066	U	0.066	0.18	1
01363	Heptachlor Epoxide	1024-57-3	0.038	U	0.038	0.18	1
01363	Methoxychlor	72-43-5	0.38	U	0.38	1.8	1
01363	Mirex	2385-85-5	0.073	U	0.073	0.38	1
01363	Toxaphene	8001-35-2	2.4	U	2.4	7.3	1

Various analytes in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported.

Pesticides/PCBs		SW-846 8082	ug/kg	U	ug/kg	ug/kg	ug/kg
10225	Aroclor 5432	63496-31-1	1.1	U	1.1	3.7	1
10225	Aroclor 5442	12642-23-8	1.1	U	1.1	3.7	1
10225	Aroclor 5460	11126-42-4	1.1	U	1.1	3.7	1
10225	PCB-1016	12674-11-2	0.37	U	0.37	1.9	1
10225	PCB-1221	11104-28-2	0.55	U	0.55	1.9	1
10225	PCB-1232	11141-16-5	0.58	U	0.58	1.9	1
10225	PCB-1242	53469-21-9	0.55	U	0.55	1.9	1
10225	PCB-1248	12672-29-6	0.37	U	0.37	1.9	1
10225	PCB-1254	11097-69-1	0.51	J	0.37	1.9	1
10225	PCB-1260	11096-82-5	0.37	U	0.37	1.9	1
10225	PCB-1262	37324-23-5	0.37	U	0.37	1.9	1
10225	PCB-1268	11100-14-4	0.37	U	0.37	1.9	1

The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.

Metals		SW-846 6010B	mg/kg	J	mg/kg	mg/kg	mg/kg
01643	Aluminum	7429-90-5	10,900		5.46	21.7	1
07914	Boron	7440-42-8	3.38	J	0.965	5.42	1
01650	Calcium	7440-70-2	3,500		6.65	21.7	1
01654	Iron	7439-89-6	14,200		5.11	21.7	1

\*=This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-036-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-036-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162874  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 13:45

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3317 SDG#: DE033-17

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Metals</b>							
<b>SW-846 6010B</b>			<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
01656	Lithium	7439-93-2	13.4	0.24	2.2		1
01657	Magnesium	7439-95-4	3,150	2.75	10.8		1
06958	Manganese	7439-96-5	186	0.0846	0.542		1
10145	Phosphorus	7723-14-0	324	0.607	10.8		1
01662	Potassium	7440-09-7	2,300	19.5	54.2		1
01667	Sodium	7440-23-5	83.6 J	40.5	108		1
07968	Strontium	7440-24-6	21.4	0.0672	0.542		1
06969	Tin	7440-31-5	1.96 J	1.08	10.8		1
06970	Titanium	7440-32-6	1,020	0.832	2.19		2
10146	Zirconium	7440-67-7	2.09 J	0.911	5.42		1
<b>SW-846 6020</b>			<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
06124	Antimony	7440-36-0	0.0978 J	0.0632	0.211		2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.							
06125	Arsenic	7440-38-2	5.16	0.0632	0.421		2
06126	Barium	7440-39-3	107	0.114	0.421		2
06127	Beryllium	7440-41-7	0.501	0.0169	0.105		2
06128	Cadmium	7440-43-9	0.163	0.0379	0.105		2
06131	Chromium	7440-47-3	21.7	0.126	0.421		2
06132	Cobalt	7440-48-4	6.39	0.0211	0.105		2
06133	Copper	7440-50-8	9.76	0.0695	0.421		2
06135	Lead	7439-92-1	6.36	0.0110	0.211		2
06138	Molybdenum	7439-98-7	1.16	0.0527	0.105		2
06139	Nickel	7440-02-0	12.4	0.105	0.421		2
06141	Selenium	7782-49-2	0.128 J	0.0421	0.421		2
06142	Silver	7440-22-4	0.0308 J	0.0126	0.105		2
06145	Thallium	7440-28-0	0.315	0.0316	0.105		2
06148	Vanadium	7440-62-2	38.5	0.0232	0.105		2
06149	Zinc	7440-66-6	71.2	0.590	3.16		2
<b>SW-846 7471A</b>			<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
00159	Mercury	7439-97-6	0.0030 U	0.0030	0.104		1
<b>Wet Chemistry</b>							
<b>EPA 300.0</b>			<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	0.88 U	0.88	1.1		1
<b>EPA 314.0</b>			<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10147	7a Perchlorate EPA 314.0	14797-73-0	10 U	10	33.2		1
<b>SW-846 7199</b>			<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
05892	3a Cr VI by EPA 7199	18540-29-9	0.33 J	0.22	1.1		1
<b>ASTM D1498</b>			<b>mV</b>	<b>mV</b>	<b>mV</b>	<b>mV</b>	
01821	Oxidation Reduction Potential	n.a.	430	10.0	10.0		1

\*—This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-036-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-036-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162874  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 13:45

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3317 SDG#: DE033-17

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Wet Chemistry</b>		<b>ASTM D1498</b>	mV	mV	mV	mV	
The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.							
		<b>SW-846 9045C modified</b>	Std. Units	Std. Units	Std. Units	Std. Units	
00394	22a pH by 9045C	n.a.	7.87	0.0100	0.0100		1
<b>Wet Chemistry</b>		<b>EPA 160.3 modified</b>	%	%	%	%	
11624	28a Moisture Content by 160.3	n.a.	9.6	0.50	0.50		1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.							

### General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10348SLG026	12/23/2010 02:43	Ryan P Byrne	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10349SLF026	12/21/2010 13:00	Mark A Clark	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10349SLF026	12/16/2010 07:00	Joseph S Feister	1
00381	BNA Soil Sonication	SW-846 3550B	1	10348SLG026	12/15/2010 07:05	Joseph S Feister	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	103490014A	12/18/2010 02:09	John W Perkins	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	103500011A	12/23/2010 21:06	Jamie L Brillhart	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	103490013A	12/19/2010 13:16	Lindsey K Lafferty	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	2	103500011A	12/16/2010 16:50	JoElla L Rice	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	103490013A	12/15/2010 21:05	Karen L Beyer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	103490014A	12/16/2010 02:10	David V Hershey Jr	1
01643	Aluminum	SW-846 6010B	1	103495708002	12/16/2010 17:42	Eric L Eby	1
07914	Boron	SW-846 6010B	1	103495708002	12/16/2010 05:49	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	103495708002	12/16/2010 05:49	Tara L Snyder	1
01654	Iron	SW-846 6010B	1	103495708002	12/16/2010 05:49	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	103495708002	12/16/2010 05:49	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	103495708002	12/16/2010 05:49	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	103495708002	12/16/2010 05:49	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	103495708002	12/16/2010 05:49	Tara L Snyder	1

\*=This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-036-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-036-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162874  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/08/2010 13:45

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3317 SDG#: DE033-17

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01662	Potassium	SW-846 6010B	1	103495708002	12/16/2010 05:49	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	103495708002	12/16/2010 05:49	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	103495708002	12/16/2010 05:49	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	103495708002	12/16/2010 05:49	Tara L Snyder	1
06970	Titanium	SW-846 6010B	1	103505708003	12/20/2010 17:47	John P Hook	2
10146	Zirconium	SW-846 6010B	1	103495708002	12/16/2010 05:49	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	103491026002A	12/17/2010 15:59	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103491026002A	12/17/2010 15:59	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103491026002D	12/17/2010 15:59	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103491026002A	12/17/2010 15:59	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103491026002A	12/17/2010 15:59	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103491026002A	12/17/2010 15:59	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103491026002A	12/17/2010 15:59	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103491026002A	12/17/2010 15:59	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103491026002A	12/17/2010 15:59	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103491026002C	12/17/2010 15:59	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103491026002A	12/17/2010 15:59	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103491026002B	12/17/2010 15:59	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103491026002A	12/17/2010 15:59	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103491026002A	12/17/2010 15:59	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103491026002A	12/17/2010 15:59	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	103491026002A	12/17/2010 15:59	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	103495711002	12/15/2010 20:06	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	103495708002	12/15/2010 10:35	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	103505708003	12/17/2010 19:17	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103491026002	12/15/2010 11:08	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	103495711002	12/15/2010 12:17	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10352352201B	12/20/2010 18:26	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10356356201A	12/27/2010 18:38	Ashley M Adams	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	10356243201A	12/28/2010 22:16	Ashley M Adams	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10352352201B	12/19/2010 16:30	Joseph E McKenzie	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10356356201A	12/22/2010 11:15	Nancy J Shoop	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10348182101B	12/14/2010 09:00	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10348039401B	12/14/2010 09:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10356243201A	12/22/2010 20:10	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	2	10347162401B	12/14/2010 05:05	William C Schwebel	1

\*—This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-022-SA5C-SB-4.0-5.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-022-SA5C-SB-4.0-5.0

LLI Sample # SW 6162875  
 LLI Group # 1225035  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/09/2010 09:56

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3318 SDG#: DE033-18

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
06192	Acetone	67-64-1	7.4 U	7.4	8.8		1.01
06192	Benzene	71-43-2	0.11 U	0.11	4.4		1.01
06192	Bromobenzene	108-86-1	0.14 U	0.14	4.4		1.01
06192	Bromochloromethane	74-97-5	0.36 U	0.36	4.4		1.01
06192	Bromodichloromethane	75-27-4	0.09 U	0.09	4.4		1.01
06192	Bromoform	75-25-2	0.44 U	0.44	4.4		1.01
06192	Bromomethane	74-83-9	0.28 U	0.28	4.4		1.01
06192	2-Butanone	78-93-3	1.3 U	1.3	8.8		1.01
06192	n-Butylbenzene	104-51-8	0.13 U	0.13	4.4		1.01
06192	sec-Butylbenzene	135-98-8	0.07 U	0.07	4.4		1.01
06192	tert-Butylbenzene	98-06-6	0.18 U	0.18	4.4		1.01
06192	Carbon Tetrachloride	56-23-5	0.15 U	0.15	4.4		1.01
06192	Chlorobenzene	108-90-7	0.12 U	0.12	4.4		1.01
06192	Chloroethane	75-00-3	0.14 U	0.14	4.4		1.01
06192	2-Chloroethyl Vinyl Ether	110-75-8	0.33 U	0.33	4.4		1.01
06192	Chloroform	67-66-3	0.13 U	0.13	4.4		1.01
06192	Chloromethane	74-87-3	0.36 U	0.36	4.4		1.01
06192	2-Chlorotoluene	95-49-8	0.15 U	0.15	4.4		1.01
06192	4-Chlorotoluene	106-43-4	0.15 U	0.15	4.4		1.01
06192	Chlorotrifluoroethene	79-38-9	0.55 U	0.55	5.5		1.01
06192	1,2-Dibromo-3-chloropropane	96-12-8	0.77 U	0.77	4.4		1.01
06192	Dibromochloromethane	124-48-1	0.22 U	0.22	4.4		1.01
06192	1,2-Dibromoethane	106-93-4	0.19 U	0.19	4.4		1.01
06192	Dibromomethane	74-95-3	0.26 U	0.26	4.4		1.01
06192	1,2-Dichlorobenzene	95-50-1	0.1 U	0.1	4.4		1.01
06192	1,3-Dichlorobenzene	541-73-1	0.13 U	0.13	4.4		1.01
06192	1,4-Dichlorobenzene	106-46-7	0.18 U	0.18	4.4		1.01
06192	Dichlorodifluoromethane	75-71-8	0.13 U	0.13	4.4		1.01
06192	1,1-Dichloroethane	75-34-3	0.11 U	0.11	4.4		1.01
06192	1,2-Dichloroethane	107-06-2	0.17 U	0.17	4.4		1.01
06192	1,1-Dichloroethene	75-35-4	0.43 U	0.43	4.4		1.01
06192	cis-1,2-Dichloroethene	156-59-2	0.21 U	0.21	4.4		1.01
06192	trans-1,2-Dichloroethene	156-60-5	0.13 U	0.13	4.4		1.01
06192	1,2-Dichloropropane	78-87-5	0.19 U	0.19	4.4		1.01
06192	1,3-Dichloropropane	142-28-9	0.09 U	0.09	4.4		1.01
06192	2,2-Dichloropropane	594-20-7	0.19 U	0.19	4.4		1.01
06192	1,1-Dichloropropene	563-58-6	0.14 U	0.14	4.4		1.01
06192	cis-1,3-Dichloropropene	10061-01-5	0.18 U	0.18	4.4		1.01
06192	trans-1,3-Dichloropropene	10061-02-6	0.19 U	0.19	4.4		1.01
06192	Ethylbenzene	100-41-4	0.07 U	0.07	4.4		1.01
06192	Freon 113	76-13-1	0.12 U	0.12	4.4		1.01
06192	Freon 133a	75-88-7	0.55 U	0.55	5.5		1.01
06192	Hexachlorobutadiene	87-68-3	0.15 U	0.15	4.4		1.01
06192	2-Hexanone	591-78-6	1.8 U	1.8	8.8		1.01
06192	Isopropylbenzene	98-82-8	0.07 U	0.07	4.4		1.01
06192	p-Isopropyltoluene	99-87-6	0.12 U	0.12	4.4		1.01
06192	Methyl Tertiary Butyl Ether	1634-04-4	0.23 U	0.23	4.4		1.01
06192	4-Methyl-2-pentanone	108-10-1	0.43 U	0.43	8.8		1.01
06192	Methylene Chloride	75-09-2	0.68 J	0.26	4.4		1.01
06192	n-Propylbenzene	103-65-1	0.08 U	0.08	4.4		1.01

\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-022-SA5C-SB-4.0-5.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-022-SA5C-SB-4.0-5.0

LLI Sample # SW 6162875  
 LLI Group # 1225035  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/09/2010 09:56

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3318 SDG#: DE033-18

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
06192	Styrene	100-42-5	0.11 U	0.11	4.4		1.01
06192	1,1,1,2-Tetrachloroethane	630-20-6	0.12 U	0.12	4.4		1.01
06192	1,1,2,2-Tetrachloroethane	79-34-5	0.25 U	0.25	4.4		1.01
06192	Tetrachloroethene	127-18-4	0.22 U	0.22	4.4		1.01
06192	Toluene	108-88-3	0.09 U	0.09	4.4		1.01
06192	1,2,3-Trichlorobenzene	87-61-6	0.15 U	0.15	4.4		1.01
06192	1,2,4-Trichlorobenzene	120-82-1	0.20 U	0.20	4.4		1.01
06192	1,1,1-Trichloroethane	71-55-6	0.22 U	0.22	4.4		1.01
06192	1,1,2-Trichloroethane	79-00-5	0.30 U	0.30	4.4		1.01
06192	Trichloroethene	79-01-6	0.17 U	0.17	4.4		1.01
06192	Trichlorofluoromethane	75-69-4	0.32 U	0.32	4.4		1.01
06192	1,2,3-Trichloropropane	96-18-4	0.36 U	0.36	4.4		1.01
06192	1,2,4-Trimethylbenzene	95-63-6	0.44 U	0.44	4.4		1.01
06192	1,3,5-Trimethylbenzene	108-67-8	0.11 U	0.11	4.4		1.01
06192	Vinyl Chloride	75-01-4	0.22 U	0.22	4.4		1.01
06192	m+p-Xylene	179601-23-1	0.19 U	0.19	4.4		1.01
06192	o-Xylene	95-47-6	0.19 U	0.19	4.4		1.01
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B SIM</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10326	1,4-Dioxane	123-91-1	4.9 U	4.9	15		22.52
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>EPA 1625C</b>	<b>ng/kg</b>	<b>ng/kg</b>	<b>ng/kg</b>	<b>ng/kg</b>	
11622	N-Nitrosodimethylamine	62-75-9	162	18.3	36.6		1
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04688	Aniline	62-53-3	180	U 180	550		1
04688	Benzidine	92-87-5	1,300	U 1,300	3,700		1
04688	Benzoic acid	65-85-0	180	U 180	550		1
04688	Benzyl alcohol	100-51-6	180	U 180	550		1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180		1
04688	Carbazole	86-74-8	18	U 18	180		1
04688	4-Chloro-3-methylphenol	59-50-7	37	U 37	180		1
04688	4-Chloroaniline	106-47-8	73	U 73	180		1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180		1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180		1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180		1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180		1
04688	2-Chlorophenol	95-57-8	18	U 18	180		1
04688	4-Chlorophenyl-phenylether	7005-72-3	37	U 37	180		1
04688	Dibenzofuran	132-64-9	18	U 18	180		1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180		1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180		1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180		1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	370		1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180		1
04688	2,4-Dimethylphenol	105-67-9	37	U 37	180		1
04688	3,5-Dimethylphenol	108-68-9	37	U 37	180		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	550		1
04688	2,4-Dinitrophenol	51-28-5	730	U 730	2,200		1

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 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-022-SA5C-SB-4.0-5.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-022-SA5C-SB-4.0-5.0

LLI Sample # SW 6162875  
 LLI Group # 1225035  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/09/2010 09:56

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3318 SDG#: DE033-18

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04688	2,4-Dinitrotoluene	121-14-2	37	U 37	180		1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180		1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180		1
04688	Hexachlorobenzene	118-74-1	18	U 18	180		1
04688	Hexachlorobutadiene	87-68-3	73	U 73	180		1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	550		1
04688	Hexachloroethane	67-72-1	18	U 18	180		1
04688	Isophorone	78-59-1	18	U 18	180		1
04688	2-Methylphenol	95-48-7	37	U 37	180		1
04688	4-Methylphenol	106-44-5	37	U 37	180		1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.							
04688	2-Nitroaniline	88-74-4	18	U 18	180		1
04688	3-Nitroaniline	99-09-2	37	U 37	180		1
04688	4-Nitroaniline	100-01-6	73	U 73	180		1
04688	Nitrobenzene	98-95-3	18	U 18	180		1
04688	2-Nitrophenol	88-75-5	18	U 18	180		1
04688	4-Nitrophenol	100-02-7	180	U 180	550		1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180		1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180		1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.							
04688	Pentachlorophenol	87-86-5	180	U 180	550		1
04688	Phenol	108-95-2	18	U 18	180		1
04688	1,2,4-Trichlorobenzene	120-82-1	18	U 18	180		1
04688	2,4,5-Trichlorophenol	95-95-4	37	U 37	180		1
04688	2,4,6-Trichlorophenol	88-06-2	37	U 37	180		1

The LCS recovery is outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: bis(2-chloroisopropyl)ether

GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	ug/kg
10138	Acenaphthene	83-32-9	0.73	U 0.73	1.8	1
10138	Acenaphthylene	208-96-8	0.37	U 0.37	1.8	1
10138	Anthracene	120-12-7	0.37	U 0.37	1.8	1
10138	Benzo(a)anthracene	56-55-3	0.73	U 0.73	1.8	1
10138	Benzo(a)pyrene	50-32-8	0.73	U 0.73	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	0.73	U 0.73	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	0.73	U 0.73	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	0.73	U 0.73	1.8	1
10138	Butylbenzylphthalate	85-68-7	6.6	U 6.6	20	1
10138	Di-n-butylphthalate	84-74-2	6.6	U 6.6	20	1
10138	Chrysene	218-01-9	0.37	U 0.37	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.73	U 0.73	1.8	1
10138	Diethylphthalate	84-66-2	6.6	U 6.6	20	1
10138	Dimethylphthalate	131-11-3	6.6	U 6.6	20	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.6	U 6.6	20	1

\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-022-SA5C-SB-4.0-5.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-022-SA5C-SB-4.0-5.0

**LLI Sample #** SW 6162875  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/09/2010 09:56

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3318 SDG#: DE033-18

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS Semivolatiles SW-846 8270C SIM</b>							
10138	Fluoranthene	206-44-0	0.73 U	0.73	1.8	ug/kg	1
10138	Fluorene	86-73-7	0.73 U	0.73	1.8	ug/kg	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.73 U	0.73	1.8	ug/kg	1
10138	1-Methylnaphthalene	90-12-0	0.73 U	0.73	1.8	ug/kg	1
10138	2-Methylnaphthalene	91-57-6	0.73 U	0.73	1.8	ug/kg	1
10138	Naphthalene	91-20-3	0.73 U	0.73	1.8	ug/kg	1
10138	N-Nitrosodimethylamine	62-75-9	0.73 U	0.73	1.8	ug/kg	1
10138	Di-n-octylphthalate	117-84-0	6.6 U	6.6	20	ug/kg	1
10138	Phenanthrene	85-01-8	0.73 U	0.73	1.8	ug/kg	1
10138	Pyrene	129-00-0	0.73 U	0.73	1.8	ug/kg	1
<b>GC Volatiles TPH GRO SW-846 8015B mod</b>							
05551	9a TPH by EPA 8015B Gas C5-C12	n.a.	0.2 U	0.2	1	mg/kg	22.52
<b>Explosives SW-846 8330A</b>							
10132	4-Amino-2,6-Dinitrotoluene	19406-51-0	82 U	82	160	1000000	1
10132	2-Amino-4,6-Dinitrotoluene	35572-78-2	55 U	55	160	1000000	1
10132	2,6-Diamino-4-nitrotoluene	59229-75-3	110 U	110	330	1000000	1
10132	2,4-Diamino-6-nitrotoluene	6629-29-4	110 U	110	330	1000000	1
10132	1,3-Dinitrobenzene	99-65-0	55 U	55	160	1000000	1
10132	2,4-Dinitrotoluene	121-14-2	55 U	55	160	1000000	1
10132	2,6-Dinitrotoluene	606-20-2	55 U	55	160	1000000	1
10132	HMX	2691-41-0	140 U	140	410	1000000	1
10132	Nitrobenzene	98-95-3	55 U	55	160	1000000	1
10132	Nitroglycerin	55-63-0	1,100 U	1,100	3,300	1000000	1
10132	2-Nitrotoluene	88-72-2	110 U	110	160	1000000	1
10132	3-Nitrotoluene	99-08-1	140 U	140	160	1000000	1
10132	4-Nitrotoluene	99-99-0	110 U	110	160	1000000	1
10132	PETN	78-11-5	1,100 U	1,100	3,300	1000000	1
10132	RDX	121-82-4	69 U	69	160	1000000	1
10132	Tetryl	479-45-8	84 U	84	160	1000000	1

\*—This limit was used in the evaluation of the final result  
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**Sample Description:** SL-022-SA5C-SB-4.0-5.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-022-SA5C-SB-4.0-5.0

LLI Sample # SW 6162875  
 LLI Group # 1225035  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/09/2010 09:56

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3318 SDG#: DE033-18

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Explosives</b>							
	<b>SW-846 8330A</b>		<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10132	1,3,5-Trinitrobenzene	99-35-4	55	U 55	160	1000000	1
10132	2,4,6-Trinitrotoluene	118-96-7	55	U 55	160	1000000	1
<b>HPLC Organics</b>							
	<b>SW-846 8315A</b>		<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04173	17a Formaldehyde by 8315A	50-00-0	660	U 660	1,600		1
<b>Pesticides/PCBs</b>							
	<b>SW-846 8082</b>		<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10225	Aroclor 5432	63496-31-1	1.1	U 1.1	3.6		1
10225	Aroclor 5442	12642-23-8	1.1	U 1.1	3.6		1
10225	Aroclor 5460	11126-42-4	1.1	U 1.1	3.6		1
10225	PCB-1016	12674-11-2	0.36	U 0.36	1.9		1
10225	PCB-1221	11104-28-2	0.55	U 0.55	1.9		1
10225	PCB-1232	11141-16-5	0.57	U 0.57	1.9		1
10225	PCB-1242	53469-21-9	0.55	U 0.55	1.9		1
10225	PCB-1248	12672-29-6	0.36	U 0.36	1.9		1
10225	PCB-1254	11097-69-1	0.36	U 0.36	1.9		1
10225	PCB-1260	11096-82-5	0.36	U 0.36	1.9		1
10225	PCB-1262	37324-23-5	0.36	U 0.36	1.9		1
10225	PCB-1268	11100-14-4	0.36	U 0.36	1.9		1

The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.

GC Extractable TPH	SW-846 8015B modified	mg/kg	mg/kg	mg/kg	mg/kg
10199	EFH (C12-C14)	n.a.	0.44	U 0.44	1.3
10199	EFH (C15-C20)	n.a.	0.44	U 0.44	1.3
10199	EFH (C21-C30)	n.a.	0.66	J 0.44	1.3
10199	EFH (C30 - C40)	n.a.	0.75	J 0.44	1.3
10199	EFH (C8-C11)	n.a.	0.44	U 0.44	1.3

GC Miscellaneous	SW-846 8015B	ug/kg	ug/kg	ug/kg	ug/kg
10501	Ethanol	64-17-5	110	U 110	550
10501	Isopropanol	67-63-0	110	U 110	550
10501	Methanol	67-56-1	110	U 110	550

GC Miscellaneous	SW-846 8015B modified	mg/kg	mg/kg	mg/kg	mg/kg
08283	Diethylene glycol	111-46-6	5.5	U 5.5	14
08283	Ethylene glycol	107-21-1	5.5	U 5.5	14
08283	Propylene glycol	57-55-6	5.5	U 5.5	14

The sample was injected numerous times. Each time the responses for various analytes in the calibration check standard injected after the sample were outside the acceptance criteria. Therefore, this effect is attributed to the sample matrix and the data is reported.

Terphenyls	SW-846 8015B	mg/kg	mg/kg	mg/kg	mg/kg
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\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-022-SA5C-SB-4.0-5.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-022-SA5C-SB-4.0-5.0

**LLI Sample #** SW 6162875  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/09/2010 09:56

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3318 SDG#: DE033-18

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Terphenyls</b>			<b>mg/kg</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
10318	m-Terphenyl	92-06-8	1.6	U	1.6	3.8		1
10318	o-Terphenyl	84-15-1	1.6	U	1.6	3.8		1
10318	p-Terphenyl	92-94-4	1.6	U	1.6	3.8		1
<b>Metals</b>			<b>mg/kg</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
01643	Aluminum	7429-90-5	13,900		5.41	21.5		1
07914	Boron	7440-42-8	1.80	J	0.958	5.38		1
01650	Calcium	7440-70-2	2,110		6.60	21.5		1
01654	Iron	7439-89-6	17,000		5.07	21.5		1
01656	Lithium	7439-93-2	16.1		0.24	2.2		1
01657	Magnesium	7439-95-4	3,140		2.73	10.8		1
06958	Manganese	7439-96-5	386		0.0839	0.538		1
10145	Phosphorus	7723-14-0	165		0.603	10.8		1
01662	Potassium	7440-09-7	2,220		19.4	53.8		1
01667	Sodium	7440-23-5	121		40.1	108		1
07968	Strontium	7440-24-6	16.4		0.0667	0.538		1
06969	Tin	7440-31-5	2.00	J	1.08	10.8		1
06970	Titanium	7440-32-6	1,120		0.818	2.15		2
10146	Zirconium	7440-67-7	2.37	J	0.904	5.38		1
<b>SW-846 6020</b>			<b>mg/kg</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
06124	Antimony	7440-36-0	0.0652	U	0.0652	0.217		2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.								
06125	Arsenic	7440-38-2	4.17		0.0652	0.435		2
06126	Barium	7440-39-3	123		0.117	0.435		2
06127	Beryllium	7440-41-7	0.614		0.0174	0.109		2
06128	Cadmium	7440-43-9	0.141		0.0391	0.109		2
06131	Chromium	7440-47-3	18.1		0.130	0.435		2
06132	Cobalt	7440-48-4	7.13		0.0217	0.109		2
06133	Copper	7440-50-8	8.85		0.0717	0.435		2
06135	Lead	7439-92-1	5.49		0.0113	0.217		2
06138	Molybdenum	7439-98-7	0.549		0.0543	0.109		2
06139	Nickel	7440-02-0	13.1		0.109	0.435		2
06141	Selenium	7782-49-2	0.0902	J	0.0435	0.435		2
06142	Silver	7440-22-4	0.0448	J	0.0130	0.109		2
06145	Thallium	7440-28-0	0.358		0.0326	0.109		2
06148	Vanadium	7440-62-2	35.3		0.0239	0.109		2
06149	Zinc	7440-66-6	50.4		0.609	3.26		2
<b>SW-846 7471A</b>			<b>mg/kg</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
00159	Mercury	7439-97-6	0.0031	U	0.0031	0.108		1
<b>Wet Chemistry</b>			<b>mg/kg</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	2.6		0.88	1.1		1
07336	11a Anions by 300.0 - Nitrate	14797-55-8	2.1		0.88	1.6		1

\*=This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-022-SA5C-SB-4.0-5.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-022-SA5C-SB-4.0-5.0

**LLI Sample #** SW 6162875  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/09/2010 09:56

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3318 SDG#: DE033-18

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Wet Chemistry SW-846 7199</b>							
05892	3a Cr VI by EPA 7199	18540-29-9	0.37 J	0.22	mg/kg	mg/kg	1
<b>SW-846 9012B</b>							
05895	21a Cyanide by 9012B	57-12-5	0.19 U	0.19	mg/kg	mg/kg	1
<b>ASTM D1498</b>							
01821	Oxidation Reduction Potential	n.a.	473	10.0	mV	mV	1
The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.							
<b>SW-846 9045C modified</b>							
00394	22a pH by 9045C	n.a.	7.26	0.0100	Std. Units	Std. Units	1
<b>Wet Chemistry EPA 160.3 modified</b>							
11624	28a Moisture Content by 160.3	n.a.	8.9	0.50	%	%	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.							

### General Sample Comments

State of California Lab Certification No. 2501  
 The volatile analysis was performed on soil from SL-022-SA5C-SB-4.5.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06192	1a Volatile Organics EPA 8260B	SW-846 8260B	1	B103481AA	12/14/2010 17:33	Nicholas R Rossi	1.01
10326	14a 1,4-Dioxane by 8260B SIM	SW-846 8260B SIM	1	E103492AA	12/15/2010 18:35	Jason M Long	22.52
08390	GC/MS - HL Encore Prep	SW-846 5035	1	201034723287	12/10/2010 20:35	Christopher D Meeks	n.a.
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035	1	201034723287	12/13/2010 15:50	Christopher D Meeks	n.a.
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035	2	201034723287	12/13/2010 15:50	Christopher D Meeks	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035	1	201034723287	12/10/2010 20:36	Christopher D Meeks	n.a.
11622	19a NDMA by 1625C	EPA 1625C	1	10350SLF026	12/29/2010 12:08	Timothy J Trees	1

\*=This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-022-SA5C-SB-4.0-5.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-022-SA5C-SB-4.0-5.0

**LLI Sample #** SW 6162875  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/09/2010 09:56

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3318 SDG#: DE033-18

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10348SLG026	12/23/2010 03:09	Ryan P Byrne	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10349SLF026	12/21/2010 13:33	Mark A Clark	1
11630	NDMA Soil Microwave	SW-846 3546	1	10350SLF026	12/17/2010 01:00	Sherry L Morrow	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10349SLF026	12/16/2010 07:00	Joseph S Feister	1
00381	BNA Soil Sonication	SW-846 3550B	1	10348SLG026	12/15/2010 07:05	Joseph S Feister	1
05551	9a TPH by EPA 8015B Gas C5-C12	TPH GRO SW-846 8015B mod	1	10348A34A	12/15/2010 03:25	Marie D John	22.52
06130	GC - 5 g HL Encore Prep	SW-846 5035	1	201034723287	12/10/2010 20:36	Christopher D Meeks	n.a.
10132	20a Energetics by 8330A	SW-846 8330A	1	103510022A	12/21/2010 11:45	Michele D Hamilton	1
04173	17a Formaldehyde by 8315A	SW-846 8315A	1	103480008A	12/17/2010 19:08	Michele D Hamilton	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	103490013A	12/19/2010 13:35	Lindsey K Lafferty	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	103490013A	12/15/2010 21:05	Karen L Beyer	1
05876	Formaldehyde Solid Extraction	SW-846 8315A	1	103480008A	12/14/2010 15:00	Kelli M Barto	1
11137	Energetics Extraction	SW-846 8330	1	103510022A	12/19/2010 17:00	Wanda F Oswald	1
10199	9a TPH by EPA 8015B Oil/Diesel	SW-846 8015B modified	1	103490010A	12/21/2010 05:05	Heather E Williams	1
10501	25a Alcohols by 8015B	SW-846 8015B	1	103480002A	12/14/2010 21:39	Dustin A Underkoffler	1
08283	27a Glycols by 8015B	SW-846 8015B modified	1	103480018A	12/15/2010 02:55	Robert Brown	1
10318	26a Terphenyls by 8015B	SW-846 8015B	1	103500031A	12/17/2010 20:03	Heather E Williams	1
11238	EFH Extraction - Soils	SW-846 3550B	1	103490010A	12/15/2010 19:30	Sally L Appleyard	1
10303	Terphenyls soil prep	SW-846 3550B	1	103500031A	12/17/2010 07:00	Kerrie A Freeburn	1
11551	Direct Inj. Solids Glycol Ext.	SW-846 8015B	1	103480018A	12/14/2010 13:00	Dustin A Underkoffler	1
00380	Direct Injection Solids Ext	SW-846 8015B	1	103480002A	12/14/2010 13:00	Dustin A Underkoffler	1
01643	Aluminum	SW-846 6010B	1	103495708002	12/16/2010 17:52	Eric L Eby	1
07914	Boron	SW-846 6010B	1	103495708002	12/16/2010 05:53	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	103495708002	12/16/2010 05:53	Tara L Snyder	1
01654	Iron	SW-846 6010B	1	103495708002	12/16/2010 05:53	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	103495708002	12/16/2010 05:53	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	103495708002	12/16/2010 05:53	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	103495708002	12/16/2010 05:53	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	103495708002	12/16/2010 05:53	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	103495708002	12/16/2010 05:53	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	103495708002	12/16/2010 05:53	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	103495708002	12/16/2010 05:53	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	103495708002	12/16/2010 05:53	Tara L Snyder	1
06970	Titanium	SW-846 6010B	1	103505708003	12/20/2010 17:51	John P Hook	2
10146	Zirconium	SW-846 6010B	1	103495708002	12/16/2010 05:53	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	103491026002A	12/17/2010 16:08	Choon Y Tian	2

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**Sample Description:** SL-022-SA5C-SB-4.0-5.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-022-SA5C-SB-4.0-5.0

**LLI Sample #** SW 6162875  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/09/2010 09:56

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3318 SDG#: DE033-18

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06125	Arsenic	SW-846 6020	1	103491026002A	12/17/2010 16:08	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103491026002D	12/17/2010 16:08	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103491026002A	12/17/2010 16:08	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103491026002A	12/17/2010 16:08	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103491026002A	12/17/2010 16:08	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103491026002A	12/17/2010 16:08	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103491026002A	12/17/2010 16:08	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103491026002A	12/17/2010 16:08	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103491026002C	12/17/2010 16:08	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103491026002A	12/17/2010 16:08	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103491026002B	12/17/2010 16:08	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103491026002A	12/17/2010 16:08	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103491026002A	12/17/2010 16:08	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103491026002A	12/17/2010 16:08	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	103491026002A	12/17/2010 16:08	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	103495711002	12/15/2010 20:07	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	103495708002	12/15/2010 10:35	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	103505708003	12/17/2010 19:17	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103491026002	12/15/2010 11:08	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	103495711002	12/15/2010 12:17	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10352352201B	12/20/2010 19:09	Ashley M Adams	1
07336	11a Anions by 300.0 - Nitrate	EPA 300.0	1	10352352201B	12/20/2010 19:09	Ashley M Adams	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	10356243201A	12/28/2010 22:29	Ashley M Adams	1
05895	21a Cyanide by 9012B	SW-846 9012B	1	10357102201A	12/23/2010 19:41	Joseph E McKenzie	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10352352201B	12/19/2010 16:30	Joseph E McKenzie	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	10357102201A	12/23/2010 15:10	Carolyn M Mastropietro	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10348182102A	12/14/2010 10:45	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10348039402A	12/14/2010 10:45	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10356243201A	12/22/2010 20:10	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	1	10364162401B	12/31/2010 05:52	William C Schwebel	1

\*—This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-022-SA5C-SB-9.0-10.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-022-SA5C-SB-9.0-10.0

LLI Sample # SW 6162876  
 LLI Group # 1225035  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/09/2010 10:02

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3319 SDG#: DE033-19

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
06192	Acetone	67-64-1	6.5 U	6.5	7.7		0.84
06192	Benzene	71-43-2	0.1 U	0.1	3.9		0.84
06192	Bromobenzene	108-86-1	0.13 U	0.13	3.9		0.84
06192	Bromochloromethane	74-97-5	0.32 U	0.32	3.9		0.84
06192	Bromodichloromethane	75-27-4	0.08 U	0.08	3.9		0.84
06192	Bromoform	75-25-2	0.39 U	0.39	3.9		0.84
06192	Bromomethane	74-83-9	0.24 U	0.24	3.9		0.84
06192	2-Butanone	78-93-3	1.2 U	1.2	7.7		0.84
06192	n-Butylbenzene	104-51-8	0.12 U	0.12	3.9		0.84
06192	sec-Butylbenzene	135-98-8	0.06 U	0.06	3.9		0.84
06192	tert-Butylbenzene	98-06-6	0.15 U	0.15	3.9		0.84
06192	Carbon Tetrachloride	56-23-5	0.14 U	0.14	3.9		0.84
06192	Chlorobenzene	108-90-7	0.11 U	0.11	3.9		0.84
06192	Chloroethane	75-00-3	0.13 U	0.13	3.9		0.84
06192	2-Chloroethyl Vinyl Ether	110-75-8	0.29 U	0.29	3.9		0.84
06192	Chloroform	67-66-3	0.12 U	0.12	3.9		0.84
06192	Chloromethane	74-87-3	0.32 U	0.32	3.9		0.84
06192	2-Chlorotoluene	95-49-8	0.14 U	0.14	3.9		0.84
06192	4-Chlorotoluene	106-43-4	0.14 U	0.14	3.9		0.84
06192	Chlorotrifluoroethene	79-38-9	0.48 U	0.48	4.8		0.84
06192	1,2-Dibromo-3-chloropropane	96-12-8	0.68 U	0.68	3.9		0.84
06192	Dibromochloromethane	124-48-1	0.19 U	0.19	3.9		0.84
06192	1,2-Dibromoethane	106-93-4	0.16 U	0.16	3.9		0.84
06192	Dibromomethane	74-95-3	0.23 U	0.23	3.9		0.84
06192	1,2-Dichlorobenzene	95-50-1	0.09 U	0.09	3.9		0.84
06192	1,3-Dichlorobenzene	541-73-1	0.12 U	0.12	3.9		0.84
06192	1,4-Dichlorobenzene	106-46-7	0.15 U	0.15	3.9		0.84
06192	Dichlorodifluoromethane	75-71-8	0.12 U	0.12	3.9		0.84
06192	1,1-Dichloroethane	75-34-3	0.1 U	0.1	3.9		0.84
06192	1,2-Dichloroethane	107-06-2	0.14 U	0.14	3.9		0.84
06192	1,1-Dichloroethene	75-35-4	0.38 U	0.38	3.9		0.84
06192	cis-1,2-Dichloroethene	156-59-2	0.18 U	0.18	3.9		0.84
06192	trans-1,2-Dichloroethene	156-60-5	0.12 U	0.12	3.9		0.84
06192	1,2-Dichloropropane	78-87-5	0.16 U	0.16	3.9		0.84
06192	1,3-Dichloropropane	142-28-9	0.08 U	0.08	3.9		0.84
06192	2,2-Dichloropropane	594-20-7	0.16 U	0.16	3.9		0.84
06192	1,1-Dichloropropene	563-58-6	0.13 U	0.13	3.9		0.84
06192	cis-1,3-Dichloropropene	10061-01-5	0.15 U	0.15	3.9		0.84
06192	trans-1,3-Dichloropropene	10061-02-6	0.16 U	0.16	3.9		0.84
06192	Ethylbenzene	100-41-4	0.06 U	0.06	3.9		0.84
06192	Freon 113	76-13-1	0.11 U	0.11	3.9		0.84
06192	Freon 133a	75-88-7	0.48 U	0.48	4.8		0.84
06192	Hexachlorobutadiene	87-68-3	0.14 U	0.14	3.9		0.84
06192	2-Hexanone	591-78-6	1.5 U	1.5	7.7		0.84
06192	Isopropylbenzene	98-82-8	0.06 U	0.06	3.9		0.84
06192	p-Isopropyltoluene	99-87-6	0.11 U	0.11	3.9		0.84
06192	Methyl Tertiary Butyl Ether	1634-04-4	0.20 U	0.20	3.9		0.84
06192	4-Methyl-2-pentanone	108-10-1	0.38 U	0.38	7.7		0.84
06192	Methylene Chloride	75-09-2	1.5 J	0.23	3.9		0.84
06192	n-Propylbenzene	103-65-1	0.07 U	0.07	3.9		0.84

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Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-022-SA5C-SB-9.0-10.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-022-SA5C-SB-9.0-10.0

**LLI Sample #** SW 6162876  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/09/2010 10:02

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3319 SDG#: DE033-19

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS Volatiles SW-846 8260B</b>							
06192	Styrene	100-42-5	0.1 U	0.1	3.9		0.84
06192	1,1,1,2-Tetrachloroethane	630-20-6	0.11 U	0.11	3.9		0.84
06192	1,1,2,2-Tetrachloroethane	79-34-5	0.22 U	0.22	3.9		0.84
06192	Tetrachloroethene	127-18-4	0.19 U	0.19	3.9		0.84
06192	Toluene	108-88-3	0.08 U	0.08	3.9		0.84
06192	1,2,3-Trichlorobenzene	87-61-6	0.14 U	0.14	3.9		0.84
06192	1,2,4-Trichlorobenzene	120-82-1	0.17 U	0.17	3.9		0.84
06192	1,1,1-Trichloroethane	71-55-6	0.19 U	0.19	3.9		0.84
06192	1,1,2-Trichloroethane	79-00-5	0.26 U	0.26	3.9		0.84
06192	Trichloroethene	79-01-6	0.14 U	0.14	3.9		0.84
06192	Trichlorofluoromethane	75-69-4	0.28 U	0.28	3.9		0.84
06192	1,2,3-Trichloropropane	96-18-4	0.32 U	0.32	3.9		0.84
06192	1,2,4-Trimethylbenzene	95-63-6	0.39 U	0.39	3.9		0.84
06192	1,3,5-Trimethylbenzene	108-67-8	0.1 U	0.1	3.9		0.84
06192	Vinyl Chloride	75-01-4	0.19 U	0.19	3.9		0.84
06192	m+p-Xylene	179601-23-1	0.16 U	0.16	3.9		0.84
06192	o-Xylene	95-47-6	0.16 U	0.16	3.9		0.84
<b>GC/MS Volatiles SW-846 8260B SIM</b>							
10326	1,4-Dioxane	123-91-1	5.0 U	5.0	15		21.89
<b>GC/MS Semivolatiles EPA 1625C</b>							
11622	N-Nitrosodimethylamine	62-75-9	275	19.1	38.3		1
<b>GC/MS Semivolatiles SW-846 8270C</b>							
04688	Aniline	62-53-3	190	U 190	570		1
04688	Benzidine	92-87-5	1,300	U 1,300	3,800		1
04688	Benzoic acid	65-85-0	190	U 190	570		1
04688	Benzyl alcohol	100-51-6	190	U 190	570		1
04688	4-Bromophenyl-phenylether	101-55-3	19	U 19	190		1
04688	Carbazole	86-74-8	19	U 19	190		1
04688	4-Chloro-3-methylphenol	59-50-7	38	U 38	190		1
04688	4-Chloroaniline	106-47-8	77	U 77	190		1
04688	bis(2-Chloroethoxy)methane	111-91-1	19	U 19	190		1
04688	bis(2-Chloroethyl)ether	111-44-4	19	U 19	190		1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	19	U 19	190		1
04688	2-Chloronaphthalene	91-58-7	19	U 19	190		1
04688	2-Chlorophenol	95-57-8	19	U 19	190		1
04688	4-Chlorophenyl-phenylether	7005-72-3	38	U 38	190		1
04688	Dibenzofuran	132-64-9	19	U 19	190		1
04688	1,2-Dichlorobenzene	95-50-1	19	U 19	190		1
04688	1,3-Dichlorobenzene	541-73-1	19	U 19	190		1
04688	1,4-Dichlorobenzene	106-46-7	19	U 19	190		1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	380		1
04688	2,4-Dichlorophenol	120-83-2	19	U 19	190		1
04688	2,4-Dimethylphenol	105-67-9	38	U 38	190		1
04688	3,5-Dimethylphenol	108-68-9	38	U 38	190		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	190	U 190	570		1
04688	2,4-Dinitrophenol	51-28-5	770	U 770	2,300		1

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Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-022-SA5C-SB-9.0-10.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-022-SA5C-SB-9.0-10.0

LLI Sample # SW 6162876  
 LLI Group # 1225035  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/09/2010 10:02

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3319 SDG#: DE033-19

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04688	2,4-Dinitrotoluene	121-14-2	38	U 38	190		1
04688	2,6-Dinitrotoluene	606-20-2	19	U 19	190		1
04688	1,2-Diphenylhydrazine	122-66-7	19	U 19	190		1
04688	Hexachlorobenzene	118-74-1	19	U 19	190		1
04688	Hexachlorobutadiene	87-68-3	77	U 77	190		1
04688	Hexachlorocyclopentadiene	77-47-4	190	U 190	570		1
04688	Hexachloroethane	67-72-1	19	U 19	190		1
04688	Isophorone	78-59-1	19	U 19	190		1
04688	2-Methylphenol	95-48-7	38	U 38	190		1
04688	4-Methylphenol	106-44-5	38	U 38	190		1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.							
04688	2-Nitroaniline	88-74-4	19	U 19	190		1
04688	3-Nitroaniline	99-09-2	38	U 38	190		1
04688	4-Nitroaniline	100-01-6	77	U 77	190		1
04688	Nitrobenzene	98-95-3	19	U 19	190		1
04688	2-Nitrophenol	88-75-5	19	U 19	190		1
04688	4-Nitrophenol	100-02-7	190	U 190	570		1
04688	N-Nitroso-di-n-propylamine	621-64-7	19	U 19	190		1
04688	N-Nitrosodiphenylamine	86-30-6	19	U 19	190		1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.							
04688	Pentachlorophenol	87-86-5	190	U 190	570		1
04688	Phenol	108-95-2	19	U 19	190		1
04688	1,2,4-Trichlorobenzene	120-82-1	19	U 19	190		1
04688	2,4,5-Trichlorophenol	95-95-4	38	U 38	190		1
04688	2,4,6-Trichlorophenol	88-06-2	38	U 38	190		1

The LCS recovery is outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: bis(2-chloroisopropyl)ether

GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	ug/kg
10138	Acenaphthene	83-32-9	0.77	U 0.77	1.9	1
10138	Acenaphthylene	208-96-8	0.38	U 0.38	1.9	1
10138	Anthracene	120-12-7	0.38	U 0.38	1.9	1
10138	Benzo(a)anthracene	56-55-3	0.77	U 0.77	1.9	1
10138	Benzo(a)pyrene	50-32-8	0.77	U 0.77	1.9	1
10138	Benzo(b)fluoranthene	205-99-2	0.77	U 0.77	1.9	1
10138	Benzo(g,h,i)perylene	191-24-2	0.77	U 0.77	1.9	1
10138	Benzo(k)fluoranthene	207-08-9	0.77	U 0.77	1.9	1
10138	Butylbenzylphthalate	85-68-7	6.9	U 6.9	21	1
10138	Di-n-butylphthalate	84-74-2	6.9	U 6.9	21	1
10138	Chrysene	218-01-9	0.38	U 0.38	1.9	1
10138	Dibenz(a,h)anthracene	53-70-3	0.77	U 0.77	1.9	1
10138	Diethylphthalate	84-66-2	6.9	U 6.9	21	1
10138	Dimethylphthalate	131-11-3	6.9	U 6.9	21	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	16	J 6.9	21	1

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 SSFL Area IV Collocated Soil Sampling  
 SL-022-SA5C-SB-9.0-10.0

**LLI Sample #** SW 6162876  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/09/2010 10:02

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E3319 SDG#: DE033-19

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS Semivolatiles SW-846 8270C SIM</b>							
10138	Fluoranthene	206-44-0	0.77 U	0.77	1.9	1	1
10138	Fluorene	86-73-7	0.77 U	0.77	1.9	1	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.77 U	0.77	1.9	1	1
10138	1-Methylnaphthalene	90-12-0	0.77 U	0.77	1.9	1	1
10138	2-Methylnaphthalene	91-57-6	0.77 U	0.77	1.9	1	1
10138	Naphthalene	91-20-3	0.77 U	0.77	1.9	1	1
10138	N-Nitrosodimethylamine	62-75-9	0.77 U	0.77	1.9	1	1
10138	Di-n-octylphthalate	117-84-0	6.9 U	6.9	21	1	1
10138	Phenanthrene	85-01-8	0.77 U	0.77	1.9	1	1
10138	Pyrene	129-00-0	0.77 U	0.77	1.9	1	1
Bis(2-ethylhexyl)phthalate was detected in the method blank at a concentration of 6.5 ug/kg. The blank value was not subtracted from the analytical result.							
<b>GC Volatiles TPH GRO SW-846 8015B mod</b>							
05551	9a TPH by EPA 8015B Gas C5-C12	n.a.	0.2 U	0.2	1	21.66	
<b>Explosives SW-846 8330A</b>							
10132	4-Amino-2,6-Dinitrotoluene	19406-51-0	86 U	86	170	1000000	1
10132	2-Amino-4,6-Dinitrotoluene	35572-78-2	57 U	57	170	1000000	1
10132	2,6-Diamino-4-nitrotoluene	59229-75-3	110 U	110	340	1000000	1
10132	2,4-Diamino-6-nitrotoluene	6629-29-4	110 U	110	340	1000000	1
10132	1,3-Dinitrobenzene	99-65-0	57 U	57	170	1000000	1
10132	2,4-Dinitrotoluene	121-14-2	57 U	57	170	1000000	1
10132	2,6-Dinitrotoluene	606-20-2	57 U	57	170	1000000	1
10132	HMX	2691-41-0	140 U	140	430	1000000	1
10132	Nitrobenzene	98-95-3	57 U	57	170	1000000	1
10132	Nitroglycerin	55-63-0	1,100 U	1,100	3,400	1000000	1
10132	2-Nitrotoluene	88-72-2	110 U	110	170	1000000	1
10132	3-Nitrotoluene	99-08-1	140 U	140	170	1000000	1
10132	4-Nitrotoluene	99-99-0	110 U	110	170	1000000	1
10132	PETN	78-11-5	1,100 U	1,100	3,400	1000000	1
10132	RDX	121-82-4	72 U	72	170	1000000	1

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E3319 SDG#: DE033-19

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Explosives</b>							
		<b>SW-846 8330A</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10132	Tetryl	479-45-8	88	U 88	170	1000000	1
10132	1,3,5-Trinitrobenzene	99-35-4	57	U 57	170	1000000	1
10132	2,4,6-Trinitrotoluene	118-96-7	57	U 57	170	1000000	1
<b>HPLC Organics</b>							
		<b>SW-846 8315A</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04173	17a Formaldehyde by	8315A 50-00-0	690	U 690	1,700		1
<b>Pesticides/PCBs</b>							
		<b>SW-846 8082</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10225	Aroclor 5432	63496-31-1	1.1	U 1.1	3.8		1
10225	Aroclor 5442	12642-23-8	1.1	U 1.1	3.8		1
10225	Aroclor 5460	11126-42-4	1.1	U 1.1	3.8		1
10225	PCB-1016	12674-11-2	0.38	U 0.38	2.0		1
10225	PCB-1221	11104-28-2	0.57	U 0.57	2.0		1
10225	PCB-1232	11141-16-5	0.60	U 0.60	2.0		1
10225	PCB-1242	53469-21-9	0.57	U 0.57	2.0		1
10225	PCB-1248	12672-29-6	0.38	U 0.38	2.0		1
10225	PCB-1254	11097-69-1	0.38	U 0.38	2.0		1
10225	PCB-1260	11096-82-5	0.38	U 0.38	2.0		1
10225	PCB-1262	37324-23-5	0.38	U 0.38	2.0		1
10225	PCB-1268	11100-14-4	0.38	U 0.38	2.0		1

The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.

GC Extractable TPH	SW-846 8015B modified	mg/kg	mg/kg	mg/kg	mg/kg
10199	EFH (C12-C14)	n.a.	0.46	U 0.46	1.4
10199	EFH (C15-C20)	n.a.	0.46	U 0.46	1.4
10199	EFH (C21-C30)	n.a.	0.48	J 0.46	1.4
10199	EFH (C30 - C40)	n.a.	0.46	U 0.46	1.4
10199	EFH (C8-C11)	n.a.	0.46	U 0.46	1.4

GC Miscellaneous	SW-846 8015B	ug/kg	ug/kg	ug/kg	ug/kg
10501	Ethanol	64-17-5	110	U 110	570
10501	Isopropanol	67-63-0	110	U 110	570
10501	Methanol	67-56-1	110	U 110	570

GC Miscellaneous	SW-846 8015B modified	mg/kg	mg/kg	mg/kg	mg/kg
08283	Diethylene glycol	111-46-6	5.7	U 5.7	14
08283	Ethylene glycol	107-21-1	5.7	U 5.7	14
08283	Propylene glycol	57-55-6	5.7	U 5.7	14

The sample was injected numerous times. Each time the responses for various analytes in the calibration check standard injected with the sample were outside the acceptance criteria. Therefore, this effect is attributed to the sample matrix and the data is reported.

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**Sample Description:** SL-022-SA5C-SB-9.0-10.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-022-SA5C-SB-9.0-10.0

LLI Sample # SW 6162876  
 LLI Group # 1225035  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

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E3319 SDG#: DE033-19

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Terphenyls</b>			<b>mg/kg</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
10318	m-Terphenyl	92-06-8	3.4	U	3.4	8.0		1
10318	o-Terphenyl	84-15-1	3.4	U	3.4	8.0		1
10318	p-Terphenyl	92-94-4	3.4	U	3.4	8.0		1
<b>Metals</b>			<b>mg/kg</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
01643	Aluminum	7429-90-5	19,600		5.61	22.3		1
07914	Boron	7440-42-8	2.02	J	0.992	5.57		1
01650	Calcium	7440-70-2	2,410		6.83	22.3		1
01654	Iron	7439-89-6	21,700		5.25	22.3		1
01656	Lithium	7439-93-2	22.7		0.25	2.2		1
01657	Magnesium	7439-95-4	4,760		2.83	11.1		1
06958	Manganese	7439-96-5	334		0.0869	0.557		1
10145	Phosphorus	7723-14-0	79.2		0.624	11.1		1
01662	Potassium	7440-09-7	1,800		20.1	55.7		1
01667	Sodium	7440-23-5	987		41.6	111		1
07968	Strontium	7440-24-6	28.5		0.0691	0.557		1
06969	Tin	7440-31-5	2.49	J	1.11	11.1		1
06970	Titanium	7440-32-6	1,210		0.839	2.21		2
10146	Zirconium	7440-67-7	2.42	J	0.936	5.57		1
<b>SW-846 6020</b>			<b>mg/kg</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
06124	Antimony	7440-36-0	0.0675	U	0.0675	0.225		2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.								
06125	Arsenic	7440-38-2	6.05		0.0675	0.450		2
06126	Barium	7440-39-3	130		0.122	0.450		2
06127	Beryllium	7440-41-7	0.820		0.0180	0.113		2
06128	Cadmium	7440-43-9	0.150		0.0405	0.113		2
06131	Chromium	7440-47-3	27.4		0.135	0.450		2
06132	Cobalt	7440-48-4	9.00		0.0225	0.113		2
06133	Copper	7440-50-8	9.02		0.0743	0.450		2
06135	Lead	7439-92-1	7.23		0.0117	0.225		2
06138	Molybdenum	7439-98-7	1.09		0.0563	0.113		2
06139	Nickel	7440-02-0	16.9		0.113	0.450		2
06141	Selenium	7782-49-2	0.116	J	0.0450	0.450		2
06142	Silver	7440-22-4	0.0425	J	0.0135	0.113		2
06145	Thallium	7440-28-0	0.380		0.0338	0.113		2
06148	Vanadium	7440-62-2	52.5		0.0248	0.113		2
06149	Zinc	7440-66-6	62.6		0.630	3.38		2
<b>SW-846 7471A</b>			<b>mg/kg</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
00159	Mercury	7439-97-6	0.0031	U	0.0031	0.110		1
<b>Wet Chemistry</b>			<b>mg/kg</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	37.0		1.8	2.3		2
07336	11a Anions by 300.0 - Nitrate	14797-55-8	4.8		0.92	1.7		1

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**Sample Description:** SL-022-SA5C-SB-9.0-10.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-022-SA5C-SB-9.0-10.0

**LLI Sample #** SW 6162876  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/09/2010 10:02

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Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3319 SDG#: DE033-19

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Wet Chemistry SW-846 7199</b>							
05892	3a Cr VI by EPA 7199	18540-29-9	0.23 U	0.23	mg/kg	mg/kg	1
<b>SW-846 9012B</b>							
05895	21a Cyanide by 9012B	57-12-5	0.19 U	0.19	mg/kg	mg/kg	1
<b>ASTM D1498</b>							
01821	Oxidation Reduction Potential	n.a.	421	10.0	mV	mV	1
The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.							
<b>SW-846 9045C modified</b>							
00394	22a pH by 9045C	n.a.	8.69	0.0100	Std. Units	Std. Units	1
<b>Wet Chemistry EPA 160.3 modified</b>							
11624	28a Moisture Content by 160.3	n.a.	12.9	0.50	%	%	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.							

### General Sample Comments

State of California Lab Certification No. 2501  
 The volatile analysis was performed on soil from SL-022-SA5C-SB-9.5.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06192	1a Volatile Organics EPA 8260B	SW-846 8260B	1	B103481AA	12/14/2010 17:55	Nicholas R Rossi	0.84
10326	14a 1,4-Dioxane by 8260B SIM	SW-846 8260B SIM	1	E103492AA	12/15/2010 18:55	Jason M Long	21.89
08390	GC/MS - HL Encore Prep	SW-846 5035	1	201034723287	12/10/2010 21:16	Christopher D Meeks	n.a.
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035	1	201034723287	12/13/2010 15:49	Christopher D Meeks	n.a.
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035	2	201034723287	12/13/2010 15:49	Christopher D Meeks	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035	1	201034723287	12/10/2010 21:16	Christopher D Meeks	n.a.
11622	19a NDMA by 1625C	EPA 1625C	1	10350SLF026	12/29/2010 12:25	Timothy J Trees	1

\*=This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description: SL-022-SA5C-SB-9.0-10.0 Soil**  
**SSFL Area IV Collocated Soil Sampling**  
**SL-022-SA5C-SB-9.0-10.0**

**LLI Sample # SW 6162876**  
**LLI Group # 1225035**  
**Account # 13013**

**Project Name: SSFL Area IV Collocated Soil Sampling**

Collected: 12/09/2010 10:02

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3319 SDG#: DE033-19

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10348SLG026	12/23/2010 03:35	Ryan P Byrne	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10349SLF026	12/21/2010 14:07	Mark A Clark	1
11630	NDMA Soil Microwave	SW-846 3546	1	10350SLF026	12/17/2010 01:00	Sherry L Morrow	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10349SLF026	12/16/2010 07:00	Joseph S Feister	1
00381	BNA Soil Sonication	SW-846 3550B	1	10348SLG026	12/15/2010 07:05	Joseph S Feister	1
05551	9a TPH by EPA 8015B Gas C5-C12	TPH GRO SW-846 8015B mod	1	10348A34A	12/15/2010 04:02	Marie D John	21.66
06130	GC - 5 g HL Encore Prep	SW-846 5035	1	201034723287	12/10/2010 21:16	Christopher D Meeks	n.a.
10132	20a Energetics by 8330A	SW-846 8330A	1	103510022A	12/21/2010 12:27	Michele D Hamilton	1
04173	17a Formaldehyde by 8315A	SW-846 8315A	1	103480008A	12/17/2010 19:18	Michele D Hamilton	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	103540019A	12/23/2010 11:28	Lindsey K Lafferty	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	2	103540019A	12/21/2010 02:00	Roman Kuropatkin	1
05876	Formaldehyde Solid Extraction	SW-846 8315A	1	103480008A	12/14/2010 15:00	Kelli M Barto	1
11137	Energetics Extraction	SW-846 8330	1	103510022A	12/19/2010 17:00	Wanda F Oswald	1
10199	9a TPH by EPA 8015B Oil/Diesel	SW-846 8015B modified	1	103490010A	12/21/2010 05:30	Heather E Williams	1
10501	25a Alcohols by 8015B	SW-846 8015B	1	103480003A	12/15/2010 15:40	Dustin A Underkoffler	1
08283	27a Glycols by 8015B	SW-846 8015B modified	1	103480019A	12/16/2010 21:37	Robert Brown	1
10318	26a Terphenyls by 8015B	SW-846 8015B	1	103500031A	12/17/2010 20:48	Heather E Williams	1
11238	EFH Extraction - Soils	SW-846 3550B	1	103490010A	12/15/2010 19:30	Sally L Appleyard	1
10303	Terphenyls soil prep	SW-846 3550B	1	103500031A	12/17/2010 07:00	Kerrie A Freeburn	1
11551	Direct Inj. Solids Glycol Ext.	SW-846 8015B	1	103480019A	12/15/2010 12:00	Dustin A Underkoffler	1
00380	Direct Injection Solids Ext	SW-846 8015B	1	103480003A	12/15/2010 12:00	Dustin A Underkoffler	1
01643	Aluminum	SW-846 6010B	1	103495708002	12/16/2010 17:56	Eric L Eby	1
07914	Boron	SW-846 6010B	1	103495708002	12/16/2010 05:57	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	103495708002	12/16/2010 05:57	Tara L Snyder	1
01654	Iron	SW-846 6010B	1	103495708002	12/16/2010 05:57	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	103495708002	12/16/2010 05:57	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	103495708002	12/16/2010 05:57	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	103495708002	12/16/2010 05:57	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	103495708002	12/16/2010 05:57	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	103495708002	12/16/2010 05:57	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	103495708002	12/16/2010 05:57	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	103495708002	12/16/2010 05:57	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	103495708002	12/16/2010 05:57	Tara L Snyder	1
06970	Titanium	SW-846 6010B	1	103505708003	12/20/2010 17:54	John P Hook	2
10146	Zirconium	SW-846 6010B	1	103495708002	12/16/2010 05:57	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	103491026002A	12/17/2010 16:11	Choon Y Tian	2

\*—This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-022-SA5C-SB-9.0-10.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-022-SA5C-SB-9.0-10.0

**LLI Sample #** SW 6162876  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/09/2010 10:02

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3319 SDG#: DE033-19

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06125	Arsenic	SW-846 6020	1	103491026002A	12/17/2010 16:11	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103491026002D	12/17/2010 16:11	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103491026002A	12/17/2010 16:11	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103491026002A	12/17/2010 16:11	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103491026002A	12/17/2010 16:11	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103491026002A	12/17/2010 16:11	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103491026002A	12/17/2010 16:11	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103491026002A	12/17/2010 16:11	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103491026002C	12/17/2010 16:11	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103491026002A	12/17/2010 16:11	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103491026002B	12/17/2010 16:11	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103491026002A	12/17/2010 16:11	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103491026002A	12/17/2010 16:11	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103491026002A	12/17/2010 16:11	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	103491026002A	12/17/2010 16:11	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	103495711002	12/15/2010 20:08	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	103495708002	12/15/2010 10:35	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	103505708003	12/17/2010 19:17	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103491026002	12/15/2010 11:08	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	103495711002	12/15/2010 12:17	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10352352201B	12/21/2010 18:46	Ashley M Adams	2
07336	11a Anions by 300.0 - Nitrate	EPA 300.0	1	10352352201B	12/20/2010 19:23	Ashley M Adams	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	10356243201A	12/28/2010 22:48	Ashley M Adams	1
05895	21a Cyanide by 9012B	SW-846 9012B	1	10357102201A	12/23/2010 19:42	Joseph E McKenzie	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10352352201B	12/19/2010 16:30	Joseph E McKenzie	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	10357102201A	12/23/2010 15:10	Carolyn M Mastropietro	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10348182102A	12/14/2010 10:45	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10348039402A	12/14/2010 10:45	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10356243201A	12/22/2010 20:10	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	1	10364162401B	12/31/2010 05:52	William C Schwebel	1

\*—This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-012-SA5C-SB-4.0-5.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-012-SA5C-SB-4.0-5.0

LLI Sample # SW 6162877  
 LLI Group # 1225035  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/09/2010 13:05

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3320 SDG#: DE033-20

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
06192	Acetone	67-64-1	6.7 U	6.7	8.0		0.9
06192	Benzene	71-43-2	0.1 U	0.1	4.0		0.9
06192	Bromobenzene	108-86-1	0.13 U	0.13	4.0		0.9
06192	Bromochloromethane	74-97-5	0.33 U	0.33	4.0		0.9
06192	Bromodichloromethane	75-27-4	0.08 U	0.08	4.0		0.9
06192	Bromoform	75-25-2	0.40 U	0.40	4.0		0.9
06192	Bromomethane	74-83-9	0.25 U	0.25	4.0		0.9
06192	2-Butanone	78-93-3	1.2 U	1.2	8.0		0.9
06192	n-Butylbenzene	104-51-8	0.12 U	0.12	4.0		0.9
06192	sec-Butylbenzene	135-98-8	0.06 U	0.06	4.0		0.9
06192	tert-Butylbenzene	98-06-6	0.16 U	0.16	4.0		0.9
06192	Carbon Tetrachloride	56-23-5	0.14 U	0.14	4.0		0.9
06192	Chlorobenzene	108-90-7	0.11 U	0.11	4.0		0.9
06192	Chloroethane	75-00-3	0.13 U	0.13	4.0		0.9
06192	2-Chloroethyl Vinyl Ether	110-75-8	0.30 U	0.30	4.0		0.9
06192	Chloroform	67-66-3	0.12 U	0.12	4.0		0.9
06192	Chloromethane	74-87-3	0.33 U	0.33	4.0		0.9
06192	2-Chlorotoluene	95-49-8	0.14 U	0.14	4.0		0.9
06192	4-Chlorotoluene	106-43-4	0.14 U	0.14	4.0		0.9
06192	Chlorotrifluoroethene	79-38-9	0.50 U	0.50	5.0		0.9
06192	1,2-Dibromo-3-chloropropane	96-12-8	0.70 U	0.70	4.0		0.9
06192	Dibromochloromethane	124-48-1	0.20 U	0.20	4.0		0.9
06192	1,2-Dibromoethane	106-93-4	0.17 U	0.17	4.0		0.9
06192	Dibromomethane	74-95-3	0.24 U	0.24	4.0		0.9
06192	1,2-Dichlorobenzene	95-50-1	0.09 U	0.09	4.0		0.9
06192	1,3-Dichlorobenzene	541-73-1	0.12 U	0.12	4.0		0.9
06192	1,4-Dichlorobenzene	106-46-7	0.16 U	0.16	4.0		0.9
06192	Dichlorodifluoromethane	75-71-8	0.12 U	0.12	4.0		0.9
06192	1,1-Dichloroethane	75-34-3	0.1 U	0.1	4.0		0.9
06192	1,2-Dichloroethane	107-06-2	0.15 U	0.15	4.0		0.9
06192	1,1-Dichloroethene	75-35-4	0.39 U	0.39	4.0		0.9
06192	cis-1,2-Dichloroethene	156-59-2	0.19 U	0.19	4.0		0.9
06192	trans-1,2-Dichloroethene	156-60-5	0.12 U	0.12	4.0		0.9
06192	1,2-Dichloropropane	78-87-5	0.17 U	0.17	4.0		0.9
06192	1,3-Dichloropropane	142-28-9	0.08 U	0.08	4.0		0.9
06192	2,2-Dichloropropane	594-20-7	0.17 U	0.17	4.0		0.9
06192	1,1-Dichloropropene	563-58-6	0.13 U	0.13	4.0		0.9
06192	cis-1,3-Dichloropropene	10061-01-5	0.16 U	0.16	4.0		0.9
06192	trans-1,3-Dichloropropene	10061-02-6	0.17 U	0.17	4.0		0.9
06192	Ethylbenzene	100-41-4	0.06 U	0.06	4.0		0.9
06192	Freon 113	76-13-1	0.11 U	0.11	4.0		0.9
06192	Freon 133a	75-88-7	0.50 U	0.50	5.0		0.9
06192	Hexachlorobutadiene	87-68-3	0.14 U	0.14	4.0		0.9
06192	2-Hexanone	591-78-6	1.6 U	1.6	8.0		0.9
06192	Isopropylbenzene	98-82-8	0.06 U	0.06	4.0		0.9
06192	p-Isopropyltoluene	99-87-6	0.11 U	0.11	4.0		0.9
06192	Methyl Tertiary Butyl Ether	1634-04-4	0.21 U	0.21	4.0		0.9
06192	4-Methyl-2-pentanone	108-10-1	0.39 U	0.39	8.0		0.9
06192	Methylene Chloride	75-09-2	1.1 J	0.24	4.0		0.9
06192	n-Propylbenzene	103-65-1	0.07 U	0.07	4.0		0.9

\*=This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-012-SA5C-SB-4.0-5.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-012-SA5C-SB-4.0-5.0

**LLI Sample #** SW 6162877  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/09/2010 13:05

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3320 SDG#: DE033-20

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS Volatiles SW-846 8260B</b>							
06192	Styrene	100-42-5	0.1 U	0.1	4.0		0.9
06192	1,1,1,2-Tetrachloroethane	630-20-6	0.11 U	0.11	4.0		0.9
06192	1,1,2,2-Tetrachloroethane	79-34-5	0.23 U	0.23	4.0		0.9
06192	Tetrachloroethene	127-18-4	0.20 U	0.20	4.0		0.9
06192	Toluene	108-88-3	0.1 J	0.08	4.0		0.9
06192	1,2,3-Trichlorobenzene	87-61-6	0.14 U	0.14	4.0		0.9
06192	1,2,4-Trichlorobenzene	120-82-1	0.18 U	0.18	4.0		0.9
06192	1,1,1-Trichloroethane	71-55-6	0.20 U	0.20	4.0		0.9
06192	1,1,2-Trichloroethane	79-00-5	0.27 U	0.27	4.0		0.9
06192	Trichloroethene	79-01-6	0.15 U	0.15	4.0		0.9
06192	Trichlorofluoromethane	75-69-4	0.29 U	0.29	4.0		0.9
06192	1,2,3-Trichloropropane	96-18-4	0.33 U	0.33	4.0		0.9
06192	1,2,4-Trimethylbenzene	95-63-6	0.40 U	0.40	4.0		0.9
06192	1,3,5-Trimethylbenzene	108-67-8	0.1 U	0.1	4.0		0.9
06192	Vinyl Chloride	75-01-4	0.20 U	0.20	4.0		0.9
06192	m+p-Xylene	179601-23-1	0.17 U	0.17	4.0		0.9
06192	o-Xylene	95-47-6	0.17 U	0.17	4.0		0.9
<b>GC/MS Volatiles SW-846 8260B SIM</b>							
10326	1,4-Dioxane	123-91-1	5.2 U	5.2	16		23.36
<b>GC/MS Semivolatiles EPA 1625C</b>							
11622	N-Nitrosodimethylamine	62-75-9	88.0	18.5	37.0		1
<b>GC/MS Semivolatiles SW-846 8270C</b>							
04688	Aniline	62-53-3	190	U 190	560		1
04688	Benzidine	92-87-5	1,300	U 1,300	3,700		1
04688	Benzoic acid	65-85-0	190	U 190	560		1
04688	Benzyl alcohol	100-51-6	190	U 190	560		1
04688	4-Bromophenyl-phenylether	101-55-3	19	U 19	190		1
04688	Carbazole	86-74-8	19	U 19	190		1
04688	4-Chloro-3-methylphenol	59-50-7	37	U 37	190		1
04688	4-Chloroaniline	106-47-8	74	U 74	190		1
04688	bis(2-Chloroethoxy)methane	111-91-1	19	U 19	190		1
04688	bis(2-Chloroethyl)ether	111-44-4	19	U 19	190		1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	19	U 19	190		1
04688	2-Chloronaphthalene	91-58-7	19	U 19	190		1
04688	2-Chlorophenol	95-57-8	19	U 19	190		1
04688	4-Chlorophenyl-phenylether	7005-72-3	37	U 37	190		1
04688	Dibenzofuran	132-64-9	19	U 19	190		1
04688	1,2-Dichlorobenzene	95-50-1	19	U 19	190		1
04688	1,3-Dichlorobenzene	541-73-1	19	U 19	190		1
04688	1,4-Dichlorobenzene	106-46-7	19	U 19	190		1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	370		1
04688	2,4-Dichlorophenol	120-83-2	19	U 19	190		1
04688	2,4-Dimethylphenol	105-67-9	37	U 37	190		1
04688	3,5-Dimethylphenol	108-68-9	37	U 37	190		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	190	U 190	560		1
04688	2,4-Dinitrophenol	51-28-5	740	U 740	2,200		1

\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-012-SA5C-SB-4.0-5.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-012-SA5C-SB-4.0-5.0

LLI Sample # SW 6162877  
 LLI Group # 1225035  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/09/2010 13:05

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3320 SDG#: DE033-20

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04688	2,4-Dinitrotoluene	121-14-2	37	U 37	190		1
04688	2,6-Dinitrotoluene	606-20-2	19	U 19	190		1
04688	1,2-Diphenylhydrazine	122-66-7	19	U 19	190		1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	20	J 19	370		1
04688	Hexachlorobenzene	118-74-1	19	U 19	190		1
04688	Hexachlorobutadiene	87-68-3	74	U 74	190		1
04688	Hexachlorocyclopentadiene	77-47-4	190	U 190	560		1
04688	Hexachloroethane	67-72-1	19	U 19	190		1
04688	Isophorone	78-59-1	19	U 19	190		1
04688	2-Methylphenol	95-48-7	37	U 37	190		1
04688	4-Methylphenol	106-44-5	37	U 37	190		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	19	U 19	190		1
04688	3-Nitroaniline	99-09-2	37	U 37	190		1
04688	4-Nitroaniline	100-01-6	74	U 74	190		1
04688	Nitrobenzene	98-95-3	19	U 19	190		1
04688	2-Nitrophenol	88-75-5	19	U 19	190		1
04688	4-Nitrophenol	100-02-7	190	U 190	560		1
04688	N-Nitroso-di-n-propylamine	621-64-7	19	U 19	190		1
04688	N-Nitrosodiphenylamine	86-30-6	19	U 19	190		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	190	U 190	560		1
04688	Phenol	108-95-2	19	U 19	190		1
04688	1,2,4-Trichlorobenzene	120-82-1	19	U 19	190		1
04688	2,4,5-Trichlorophenol	95-95-4	37	U 37	190		1
04688	2,4,6-Trichlorophenol	88-06-2	37	U 37	190		1

The LCS recovery is outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance:  
 bis(2-chloroisopropyl)ether

GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	ug/kg
10138	Acenaphthene	83-32-9	0.74	U 0.74	1.9	1
10138	Acenaphthylene	208-96-8	0.37	U 0.37	1.9	1
10138	Anthracene	120-12-7	0.37	U 0.37	1.9	1
10138	Benzo(a)anthracene	56-55-3	0.74	U 0.74	1.9	1
10138	Benzo(a)pyrene	50-32-8	0.74	U 0.74	1.9	1
10138	Benzo(b)fluoranthene	205-99-2	0.96	J 0.74	1.9	1
10138	Benzo(g,h,i)perylene	191-24-2	0.74	U 0.74	1.9	1
10138	Benzo(k)fluoranthene	207-08-9	0.74	U 0.74	1.9	1
10138	Butylbenzylphthalate	85-68-7	6.7	U 6.7	20	1
10138	Di-n-butylphthalate	84-74-2	6.7	U 6.7	20	1
10138	Chrysene	218-01-9	0.76	J 0.37	1.9	1
10138	Dibenz(a,h)anthracene	53-70-3	0.74	U 0.74	1.9	1
10138	Diethylphthalate	84-66-2	6.7	U 6.7	20	1
10138	Dimethylphthalate	131-11-3	6.7	U 6.7	20	1

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**Sample Description:** SL-012-SA5C-SB-4.0-5.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-012-SA5C-SB-4.0-5.0

**LLI Sample #** SW 6162877  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/09/2010 13:05

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3320 SDG#: DE033-20

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS Semivolatiles SW-846 8270C SIM</b>							
10138	Fluoranthene	206-44-0	0.83 J	0.74	1.9	ug/kg	1
10138	Fluorene	86-73-7	0.74 U	0.74	1.9	ug/kg	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.74 U	0.74	1.9	ug/kg	1
10138	1-Methylnaphthalene	90-12-0	0.74 U	0.74	1.9	ug/kg	1
10138	2-Methylnaphthalene	91-57-6	0.74 U	0.74	1.9	ug/kg	1
10138	Naphthalene	91-20-3	0.76 J	0.74	1.9	ug/kg	1
10138	N-Nitrosodimethylamine	62-75-9	0.74 U	0.74	1.9	ug/kg	1
10138	Di-n-octylphthalate	117-84-0	6.7 U	6.7	20	ug/kg	1
10138	Phenanthrene	85-01-8	0.74 U	0.74	1.9	ug/kg	1
10138	Pyrene	129-00-0	0.84 J	0.74	1.9	ug/kg	1
<b>GC Volatiles TPH GRO SW-846 8015B mod</b>							
05551	9a TPH by EPA 8015B Gas C5-C12	n.a.	0.2 U	0.2	1.1	mg/kg	23.72
<b>Explosives SW-846 8330A</b>							
10132	4-Amino-2,6-Dinitrotoluene	19406-51-0	83 U	83	170	1000000	1
10132	2-Amino-4,6-Dinitrotoluene	35572-78-2	56 U	56	170	1000000	1
10132	2,6-Diamino-4-nitrotoluene	59229-75-3	110 U	110	330	1000000	1
10132	2,4-Diamino-6-nitrotoluene	6629-29-4	110 U	110	330	1000000	1
10132	1,3-Dinitrobenzene	99-65-0	56 U	56	170	1000000	1
10132	2,4-Dinitrotoluene	121-14-2	56 U	56	170	1000000	1
10132	2,6-Dinitrotoluene	606-20-2	56 U	56	170	1000000	1
10132	HMX	2691-41-0	140 U	140	420	1000000	1
10132	Nitrobenzene	98-95-3	56 U	56	170	1000000	1
10132	Nitroglycerin	55-63-0	1,100 U	1,100	3,300	1000000	1
10132	2-Nitrotoluene	88-72-2	110 U	110	170	1000000	1
10132	3-Nitrotoluene	99-08-1	140 U	140	170	1000000	1
10132	4-Nitrotoluene	99-99-0	110 U	110	170	1000000	1
10132	PETN	78-11-5	1,100 U	1,100	3,300	1000000	1
10132	RDX	121-82-4	69 U	69	170	1000000	1
10132	Tetryl	479-45-8	85 U	85	170	1000000	1

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**Sample Description:** SL-012-SA5C-SB-4.0-5.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-012-SA5C-SB-4.0-5.0

LLI Sample # SW 6162877  
 LLI Group # 1225035  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/09/2010 13:05

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 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3320 SDG#: DE033-20

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Explosives</b>							
		<b>SW-846 8330A</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10132	1,3,5-Trinitrobenzene	99-35-4	56	U 56	170	1000000	1
10132	2,4,6-Trinitrotoluene	118-96-7	56	U 56	170	1000000	1
<b>HPLC Organics</b>							
		<b>SW-846 8315A</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04173	17a Formaldehyde by	8315A 50-00-0	670	U 670	1,700		1
<b>Pesticides/PCBs</b>							
		<b>SW-846 8082</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10225	Aroclor 5432	63496-31-1	1.1	U 1.1	3.7		1
10225	Aroclor 5442	12642-23-8	1.1	U 1.1	3.7		1
10225	Aroclor 5460	11126-42-4	1.1	U 1.1	3.7		1
10225	PCB-1016	12674-11-2	0.37	U 0.37	1.9		1
10225	PCB-1221	11104-28-2	0.56	U 0.56	1.9		1
10225	PCB-1232	11141-16-5	0.58	U 0.58	1.9		1
10225	PCB-1242	53469-21-9	0.56	U 0.56	1.9		1
10225	PCB-1248	12672-29-6	4.2	U 0.37	1.9		1
10225	PCB-1254	11097-69-1	2.0	U 0.37	1.9		1
10225	PCB-1260	11096-82-5	0.75	J 0.37	1.9		1
10225	PCB-1262	37324-23-5	0.37	U 0.37	1.9		1
10225	PCB-1268	11100-14-4	0.37	U 0.37	1.9		1

The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.

GC Extractable TPH	SW-846 8015B modified	mg/kg	mg/kg	mg/kg	mg/kg
10199 EFH (C12-C14)	n.a.	0.44	U 0.44	1.3	1
10199 EFH (C15-C20)	n.a.	0.44	U 0.44	1.3	1
10199 EFH (C21-C30)	n.a.	6.3	U 0.44	1.3	1
10199 EFH (C30 - C40)	n.a.	15	U 0.44	1.3	1
10199 EFH (C8-C11)	n.a.	0.44	U 0.44	1.3	1

GC Miscellaneous	SW-846 8015B	ug/kg	ug/kg	ug/kg	ug/kg
10501 Ethanol	64-17-5	310	J 110	560	1
10501 Isopropanol	67-63-0	110	U 110	560	1
10501 Methanol	67-56-1	130	J 110	560	1

GC Miscellaneous	SW-846 8015B modified	mg/kg	mg/kg	mg/kg	mg/kg
08283 Diethylene glycol	111-46-6	5.6	U 5.6	14	1
08283 Ethylene glycol	107-21-1	5.6	U 5.6	14	1
08283 Propylene glycol	57-55-6	5.6	U 5.6	14	1

The sample was injected numerous times. Each time the responses for various analytes in the calibration check standard injected after the sample were outside the acceptance criteria. Therefore, this effect is attributed to the sample matrix and the data is reported.

Terphenyls	SW-846 8015B	mg/kg	mg/kg	mg/kg	mg/kg
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**Sample Description:** SL-012-SA5C-SB-4.0-5.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-012-SA5C-SB-4.0-5.0

LLI Sample # SW 6162877  
 LLI Group # 1225035  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/09/2010 13:05

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3320 SDG#: DE033-20

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Terphenyls</b>			<b>mg/kg</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
10318	m-Terphenyl	92-06-8	1.7	U	1.7	3.9		1
10318	o-Terphenyl	84-15-1	1.7	U	1.7	3.9		1
10318	p-Terphenyl	92-94-4	1.7	U	1.7	3.9		1
<b>Metals</b>			<b>mg/kg</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
01643	Aluminum	7429-90-5	14,800		5.32	21.2		1
07914	Boron	7440-42-8	2.63	J	0.942	5.29		1
01650	Calcium	7440-70-2	5,480		6.49	21.2		1
01654	Iron	7439-89-6	21,300		4.98	21.2		1
01656	Lithium	7439-93-2	21.7		0.23	2.1		1
01657	Magnesium	7439-95-4	4,690		2.69	10.6		1
06958	Manganese	7439-96-5	250		0.0825	0.529		1
10145	Phosphorus	7723-14-0	363		0.593	10.6		1
01662	Potassium	7440-09-7	3,040		19.0	52.9		1
01667	Sodium	7440-23-5	246		39.5	106		1
07968	Strontium	7440-24-6	22.5		0.0656	0.529		1
06969	Tin	7440-31-5	1.79	J	1.06	10.6		1
06970	Titanium	7440-32-6	1,340		0.828	2.18		2
10146	Zirconium	7440-67-7	1.98	J	0.889	5.29		1
<b>SW-846 6020</b>			<b>mg/kg</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
06124	Antimony	7440-36-0	0.102	J	0.0635	0.212		2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.								
06125	Arsenic	7440-38-2	5.30		0.0635	0.423		2
06126	Barium	7440-39-3	119		0.114	0.423		2
06127	Beryllium	7440-41-7	0.626		0.0169	0.106		2
06128	Cadmium	7440-43-9	0.104	J	0.0381	0.106		2
06131	Chromium	7440-47-3	25.2		0.127	0.423		2
06132	Cobalt	7440-48-4	8.00		0.0212	0.106		2
06133	Copper	7440-50-8	12.5		0.0698	0.423		2
06135	Lead	7439-92-1	8.70		0.0110	0.212		2
06138	Molybdenum	7439-98-7	0.393		0.0529	0.106		2
06139	Nickel	7440-02-0	12.8		0.106	0.423		2
06141	Selenium	7782-49-2	0.215	J	0.0423	0.423		2
06142	Silver	7440-22-4	0.0279	J	0.0127	0.106		2
06145	Thallium	7440-28-0	0.417		0.0317	0.106		2
06148	Vanadium	7440-62-2	51.7		0.0233	0.106		2
06149	Zinc	7440-66-6	80.4		0.593	3.17		2
<b>SW-846 7471A</b>			<b>mg/kg</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
00159	Mercury	7439-97-6	0.0032	U	0.0032	0.110		1
<b>Wet Chemistry</b>			<b>mg/kg</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	7.0		0.89	1.1		1
07336	11a Anions by 300.0 - Nitrate	14797-55-8	2.4		0.89	1.7		1

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**Sample Description:** SL-012-SA5C-SB-4.0-5.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-012-SA5C-SB-4.0-5.0

**LLI Sample #** SW 6162877  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/09/2010 13:05

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3320 SDG#: DE033-20

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Wet Chemistry SW-846 7199</b>							
05892	3a Cr VI by EPA 7199	18540-29-9	1.1 J	0.22	mg/kg	mg/kg	1
<b>SW-846 9012B</b>							
05895	21a Cyanide by 9012B	57-12-5	0.20 U	0.20	mg/kg	mg/kg	1
<b>ASTM D1498</b>							
01821	Oxidation Reduction Potential	n.a.	436	10.0	mV	mV	1
The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.							
<b>SW-846 9045C modified</b>							
00394	22a pH by 9045C	n.a.	8.23	0.0100	Std. Units	Std. Units	1
<b>Wet Chemistry EPA 160.3 modified</b>							
11624	28a Moisture Content by 160.3	n.a.	10	0.50	%	%	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.							

### General Sample Comments

State of California Lab Certification No. 2501  
 The volatile analysis was performed on soil from SL-012-SA5C-SB-4.5.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06192	1a Volatile Organics EPA 8260B	SW-846 8260B	1	B103481AA	12/14/2010 18:17	Nicholas R Rossi	0.9
10326	14a 1,4-Dioxane by 8260B SIM	SW-846 8260B SIM	1	E103492AA	12/15/2010 19:15	Jason M Long	23.36
08390	GC/MS - HL Encore Prep	SW-846 5035	1	201034723287	12/10/2010 20:49	Christopher D Meeks	n.a.
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035	1	201034723287	12/13/2010 15:50	Christopher D Meeks	n.a.
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035	2	201034723287	12/13/2010 15:49	Christopher D Meeks	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035	1	201034723287	12/10/2010 20:49	Christopher D Meeks	n.a.
11622	19a NDMA by 1625C	EPA 1625C	1	10350SLF026	12/29/2010 12:43	Timothy J Trees	1

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**Sample Description:** SL-012-SA5C-SB-4.0-5.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-012-SA5C-SB-4.0-5.0

**LLI Sample #** SW 6162877  
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**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/09/2010 13:05

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 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3320 SDG#: DE033-20

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10348SLG026	12/23/2010 04:01	Ryan P Byrne	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10349SLF026	12/21/2010 14:40	Mark A Clark	1
11630	NDMA Soil Microwave	SW-846 3546	1	10350SLF026	12/17/2010 01:00	Sherry L Morrow	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10349SLF026	12/16/2010 07:00	Joseph S Feister	1
00381	BNA Soil Sonication	SW-846 3550B	1	10348SLG026	12/15/2010 07:05	Joseph S Feister	1
05551	9a TPH by EPA 8015B Gas C5-C12	TPH GRO SW-846 8015B mod	1	10348A34A	12/15/2010 08:28	Marie D John	23.72
06130	GC - 5 g HL Encore Prep	SW-846 5035	1	201034723287	12/10/2010 20:49	Christopher D Meeks	n.a.
10132	20a Energetics by 8330A	SW-846 8330A	1	103510022A	12/21/2010 13:09	Michele D Hamilton	1
04173	17a Formaldehyde by 8315A	SW-846 8315A	1	103480008A	12/17/2010 19:27	Michele D Hamilton	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	103490013A	12/19/2010 14:12	Lindsey K Lafferty	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	103490013A	12/15/2010 21:05	Karen L Beyer	1
05876	Formaldehyde Solid Extraction	SW-846 8315A	1	103480008A	12/14/2010 15:00	Kelli M Barto	1
11137	Energetics Extraction	SW-846 8330	1	103510022A	12/19/2010 17:00	Wanda F Oswald	1
10199	9a TPH by EPA 8015B Oil/Diesel	SW-846 8015B modified	1	103490010A	12/21/2010 06:20	Heather E Williams	1
10501	25a Alcohols by 8015B	SW-846 8015B	1	103480003A	12/15/2010 16:24	Dustin A Underkoffler	1
08283	27a Glycols by 8015B	SW-846 8015B modified	1	103480019A	12/16/2010 20:32	Robert Brown	1
10318	26a Terphenyls by 8015B	SW-846 8015B	1	103500031A	12/18/2010 06:32	Heather E Williams	1
11238	EFH Extraction - Soils	SW-846 3550B	1	103490010A	12/15/2010 19:30	Sally L Appleyard	1
10303	Terphenyls soil prep	SW-846 3550B	1	103500031A	12/17/2010 07:00	Kerrie A Freeburn	1
11551	Direct Inj. Solids Glycol Ext.	SW-846 8015B	1	103480019A	12/15/2010 12:00	Dustin A Underkoffler	1
00380	Direct Injection Solids Ext	SW-846 8015B	1	103480003A	12/15/2010 12:00	Dustin A Underkoffler	1
01643	Aluminum	SW-846 6010B	1	103495708002	12/16/2010 18:00	Eric L Eby	1
07914	Boron	SW-846 6010B	1	103495708002	12/16/2010 06:01	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	103495708002	12/16/2010 06:01	Tara L Snyder	1
01654	Iron	SW-846 6010B	1	103495708002	12/16/2010 06:01	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	103495708002	12/16/2010 06:01	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	103495708002	12/16/2010 06:01	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	103495708002	12/16/2010 06:01	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	103495708002	12/16/2010 06:01	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	103495708002	12/16/2010 06:01	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	103495708002	12/16/2010 06:01	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	103495708002	12/16/2010 06:01	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	103495708002	12/16/2010 06:01	Tara L Snyder	1
06970	Titanium	SW-846 6010B	1	103505708003	12/20/2010 17:58	John P Hook	2
10146	Zirconium	SW-846 6010B	1	103495708002	12/16/2010 06:01	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	103491026002A	12/17/2010 16:14	Choon Y Tian	2

\*=This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-012-SA5C-SB-4.0-5.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-012-SA5C-SB-4.0-5.0

**LLI Sample #** SW 6162877  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/09/2010 13:05

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3320 SDG#: DE033-20

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
06125	Arsenic	SW-846 6020	1	103491026002A	12/17/2010	16:14	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103491026002D	12/17/2010	16:14	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103491026002A	12/17/2010	16:14	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103491026002A	12/17/2010	16:14	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103491026002A	12/17/2010	16:14	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103491026002A	12/17/2010	16:14	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103491026002A	12/17/2010	16:14	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103491026002A	12/17/2010	16:14	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103491026002C	12/21/2010	18:14	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103491026002A	12/17/2010	16:14	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103491026002B	12/17/2010	16:14	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103491026002A	12/17/2010	16:14	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103491026002A	12/17/2010	16:14	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103491026002A	12/17/2010	16:14	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	103491026002A	12/17/2010	16:14	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	103495711002	12/15/2010	20:09	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	103495708002	12/15/2010	10:35	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	103505708003	12/17/2010	19:17	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103491026002	12/15/2010	11:08	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	103495711002	12/15/2010	12:17	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10352352201B	12/20/2010	19:37	Ashley M Adams	1
07336	11a Anions by 300.0 - Nitrate	EPA 300.0	1	10352352201B	12/20/2010	19:37	Ashley M Adams	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	10356243201A	12/28/2010	23:08	Ashley M Adams	1
05895	21a Cyanide by 9012B	SW-846 9012B	1	10357102201A	12/23/2010	19:44	Joseph E McKenzie	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10352352201B	12/19/2010	16:30	Joseph E McKenzie	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	10357102201A	12/23/2010	15:10	Carolyn M Mastropietro	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10348182102A	12/14/2010	10:45	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10348039402A	12/14/2010	10:45	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10356243201A	12/22/2010	20:10	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	1	10364162401B	12/31/2010	05:52	William C Schwebel	1

\*—This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.



# Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 9

Sample Description: SL-012-SA5C-SB-9.0-10.0 Soil  
SSFL Area IV Collocated Soil Sampling  
SL-012-SA5C-SB-9.0-10.0

LLI Sample # SW 6162878  
LLI Group # 1225035  
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/09/2010 13:14

CDM Federal Programs Corp.  
14420 Albemarle Point Place  
Suite 210  
Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3321 SDG#: DE033-21

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
06192	Acetone	67-64-1	13	7.5	9.0		0.92
06192	Benzene	71-43-2	0.11 U	0.11	4.5		0.92
06192	Bromobenzene	108-86-1	0.15 U	0.15	4.5		0.92
06192	Bromochloromethane	74-97-5	0.37 U	0.37	4.5		0.92
06192	Bromodichloromethane	75-27-4	0.09 U	0.09	4.5		0.92
06192	Bromoform	75-25-2	0.45 U	0.45	4.5		0.92
06192	Bromomethane	74-83-9	0.28 U	0.28	4.5		0.92
06192	2-Butanone	78-93-3	1.4 U	1.4	9.0		0.92
06192	n-Butylbenzene	104-51-8	0.14 U	0.14	4.5		0.92
06192	sec-Butylbenzene	135-98-8	0.07 U	0.07	4.5		0.92
06192	tert-Butylbenzene	98-06-6	0.18 U	0.18	4.5		0.92
06192	Carbon Tetrachloride	56-23-5	0.16 U	0.16	4.5		0.92
06192	Chlorobenzene	108-90-7	0.12 U	0.12	4.5		0.92
06192	Chloroethane	75-00-3	0.15 U	0.15	4.5		0.92
06192	2-Chloroethyl Vinyl Ether	110-75-8	0.34 U	0.34	4.5		0.92
06192	Chloroform	67-66-3	0.14 U	0.14	4.5		0.92
06192	Chloromethane	74-87-3	0.37 U	0.37	4.5		0.92
06192	2-Chlorotoluene	95-49-8	0.16 U	0.16	4.5		0.92
06192	4-Chlorotoluene	106-43-4	0.16 U	0.16	4.5		0.92
06192	Chlorotrifluoroethene	79-38-9	0.56 U	0.56	5.6		0.92
06192	1,2-Dibromo-3-chloropropane	96-12-8	0.79 U	0.79	4.5		0.92
06192	Dibromochloromethane	124-48-1	0.23 U	0.23	4.5		0.92
06192	1,2-Dibromoethane	106-93-4	0.19 U	0.19	4.5		0.92
06192	Dibromomethane	74-95-3	0.27 U	0.27	4.5		0.92
06192	1,2-Dichlorobenzene	95-50-1	0.10 U	0.10	4.5		0.92
06192	1,3-Dichlorobenzene	541-73-1	0.14 U	0.14	4.5		0.92
06192	1,4-Dichlorobenzene	106-46-7	0.18 U	0.18	4.5		0.92
06192	Dichlorodifluoromethane	75-71-8	0.14 U	0.14	4.5		0.92
06192	1,1-Dichloroethane	75-34-3	0.11 U	0.11	4.5		0.92
06192	1,2-Dichloroethane	107-06-2	0.17 U	0.17	4.5		0.92
06192	1,1-Dichloroethene	75-35-4	0.44 U	0.44	4.5		0.92
06192	cis-1,2-Dichloroethene	156-59-2	0.21 U	0.21	4.5		0.92
06192	trans-1,2-Dichloroethene	156-60-5	0.14 U	0.14	4.5		0.92
06192	1,2-Dichloropropane	78-87-5	0.19 U	0.19	4.5		0.92
06192	1,3-Dichloropropane	142-28-9	0.09 U	0.09	4.5		0.92
06192	2,2-Dichloropropane	594-20-7	0.19 U	0.19	4.5		0.92
06192	1,1-Dichloropropene	563-58-6	0.15 U	0.15	4.5		0.92
06192	cis-1,3-Dichloropropene	10061-01-5	0.18 U	0.18	4.5		0.92
06192	trans-1,3-Dichloropropene	10061-02-6	0.19 U	0.19	4.5		0.92
06192	Ethylbenzene	100-41-4	0.07 U	0.07	4.5		0.92
06192	Freon 113	76-13-1	0.12 U	0.12	4.5		0.92
06192	Freon 133a	75-88-7	0.56 U	0.56	5.6		0.92
06192	Hexachlorobutadiene	87-68-3	0.16 U	0.16	4.5		0.92
06192	2-Hexanone	591-78-6	1.8 U	1.8	9.0		0.92
06192	Isopropylbenzene	98-82-8	0.07 U	0.07	4.5		0.92
06192	p-Isopropyltoluene	99-87-6	0.12 U	0.12	4.5		0.92
06192	Methyl Tertiary Butyl Ether	1634-04-4	0.24 U	0.24	4.5		0.92
06192	4-Methyl-2-pentanone	108-10-1	0.44 U	0.44	9.0		0.92
06192	Methylene Chloride	75-09-2	2.3 J	0.27	4.5		0.92
06192	n-Propylbenzene	103-65-1	0.08 U	0.08	4.5		0.92

\*=This limit was used in the evaluation of the final result  
Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-012-SA5C-SB-9.0-10.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-012-SA5C-SB-9.0-10.0

LLI Sample # SW 6162878  
 LLI Group # 1225035  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/09/2010 13:14

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3321 SDG#: DE033-21

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS Volatiles SW-846 8260B</b>							
06192	Styrene	100-42-5	0.11 U	0.11	4.5		0.92
06192	1,1,1,2-Tetrachloroethane	630-20-6	0.12 U	0.12	4.5		0.92
06192	1,1,2,2-Tetrachloroethane	79-34-5	0.26 U	0.26	4.5		0.92
06192	Tetrachloroethene	127-18-4	0.23 U	0.23	4.5		0.92
06192	Toluene	108-88-3	0.12 J	0.09	4.5		0.92
06192	1,2,3-Trichlorobenzene	87-61-6	0.16 U	0.16	4.5		0.92
06192	1,2,4-Trichlorobenzene	120-82-1	0.20 U	0.20	4.5		0.92
06192	1,1,1-Trichloroethane	71-55-6	0.23 U	0.23	4.5		0.92
06192	1,1,2-Trichloroethane	79-00-5	0.30 U	0.30	4.5		0.92
06192	Trichloroethene	79-01-6	0.17 U	0.17	4.5		0.92
06192	Trichlorofluoromethane	75-69-4	0.33 U	0.33	4.5		0.92
06192	1,2,3-Trichloropropane	96-18-4	0.37 U	0.37	4.5		0.92
06192	1,2,4-Trimethylbenzene	95-63-6	0.45 U	0.45	4.5		0.92
06192	1,3,5-Trimethylbenzene	108-67-8	0.11 U	0.11	4.5		0.92
06192	Vinyl Chloride	75-01-4	0.23 U	0.23	4.5		0.92
06192	m+p-Xylene	179601-23-1	0.19 U	0.19	4.5		0.92
06192	o-Xylene	95-47-6	0.19 U	0.19	4.5		0.92
<b>GC/MS Volatiles SW-846 8260B SIM</b>							
10326	1,4-Dioxane	123-91-1	5.4 U	5.4	16		22.05
<b>GC/MS Semivolatiles EPA 1625C</b>							
11622	N-Nitrosodimethylamine	62-75-9	26.8 J	20.4	40.7		1
<b>GC/MS Semivolatiles SW-846 8270C</b>							
04688	Aniline	62-53-3	200	U 200	610		1
04688	Benzidine	92-87-5	1,400	U 1,400	4,100		1
04688	Benzoic acid	65-85-0	200	U 200	610		1
04688	Benzyl alcohol	100-51-6	200	U 200	610		1
04688	4-Bromophenyl-phenylether	101-55-3	20	U 20	200		1
04688	Carbazole	86-74-8	20	U 20	200		1
04688	4-Chloro-3-methylphenol	59-50-7	41	U 41	200		1
04688	4-Chloroaniline	106-47-8	81	U 81	200		1
04688	bis(2-Chloroethoxy)methane	111-91-1	20	U 20	200		1
04688	bis(2-Chloroethyl)ether	111-44-4	20	U 20	200		1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	20	U 20	200		1
04688	2-Chloronaphthalene	91-58-7	20	U 20	200		1
04688	2-Chlorophenol	95-57-8	20	U 20	200		1
04688	4-Chlorophenyl-phenylether	7005-72-3	41	U 41	200		1
04688	Dibenzofuran	132-64-9	20	U 20	200		1
04688	1,2-Dichlorobenzene	95-50-1	20	U 20	200		1
04688	1,3-Dichlorobenzene	541-73-1	20	U 20	200		1
04688	1,4-Dichlorobenzene	106-46-7	20	U 20	200		1
04688	3,3'-Dichlorobenzidine	91-94-1	120	U 120	410		1
04688	2,4-Dichlorophenol	120-83-2	20	U 20	200		1
04688	2,4-Dimethylphenol	105-67-9	41	U 41	200		1
04688	3,5-Dimethylphenol	108-68-9	41	U 41	200		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	200	U 200	610		1
04688	2,4-Dinitrophenol	51-28-5	810	U 810	2,400		1

\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-012-SA5C-SB-9.0-10.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-012-SA5C-SB-9.0-10.0

**LLI Sample #** SW 6162878  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/09/2010 13:14

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3321 SDG#: DE033-21

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04688	2,4-Dinitrotoluene	121-14-2	41	U 41	200		1
04688	2,6-Dinitrotoluene	606-20-2	20	U 20	200		1
04688	1,2-Diphenylhydrazine	122-66-7	20	U 20	200		1
04688	Hexachlorobenzene	118-74-1	20	U 20	200		1
04688	Hexachlorobutadiene	87-68-3	81	U 81	200		1
04688	Hexachlorocyclopentadiene	77-47-4	200	U 200	610		1
04688	Hexachloroethane	67-72-1	20	U 20	200		1
04688	Isophorone	78-59-1	20	U 20	200		1
04688	2-Methylphenol	95-48-7	41	U 41	200		1
04688	4-Methylphenol	106-44-5	41	U 41	200		1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.							
04688	2-Nitroaniline	88-74-4	20	U 20	200		1
04688	3-Nitroaniline	99-09-2	41	U 41	200		1
04688	4-Nitroaniline	100-01-6	81	U 81	200		1
04688	Nitrobenzene	98-95-3	20	U 20	200		1
04688	2-Nitrophenol	88-75-5	20	U 20	200		1
04688	4-Nitrophenol	100-02-7	200	U 200	610		1
04688	N-Nitroso-di-n-propylamine	621-64-7	20	U 20	200		1
04688	N-Nitrosodiphenylamine	86-30-6	20	U 20	200		1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.							
04688	Pentachlorophenol	87-86-5	200	U 200	610		1
04688	Phenol	108-95-2	20	U 20	200		1
04688	1,2,4-Trichlorobenzene	120-82-1	20	U 20	200		1
04688	2,4,5-Trichlorophenol	95-95-4	41	U 41	200		1
04688	2,4,6-Trichlorophenol	88-06-2	41	U 41	200		1

The LCS recovery is outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: bis(2-chloroisopropyl)ether

GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	ug/kg
10138	Acenaphthene	83-32-9	0.82	U 0.82	2.0	1
10138	Acenaphthylene	208-96-8	0.41	U 0.41	2.0	1
10138	Anthracene	120-12-7	0.41	U 0.41	2.0	1
10138	Benzo(a)anthracene	56-55-3	3.3	0.82	2.0	1
10138	Benzo(a)pyrene	50-32-8	2.9	0.82	2.0	1
10138	Benzo(b)fluoranthene	205-99-2	5.8	0.82	2.0	1
10138	Benzo(g,h,i)perylene	191-24-2	1.1	J 0.82	2.0	1
10138	Benzo(k)fluoranthene	207-08-9	1.4	J 0.82	2.0	1
10138	Butylbenzylphthalate	85-68-7	7.3	U 7.3	22	1
10138	Di-n-butylphthalate	84-74-2	16	J 7.3	22	1
10138	Chrysene	218-01-9	4.9	0.41	2.0	1
10138	Dibenz(a,h)anthracene	53-70-3	0.82	U 0.82	2.0	1
10138	Diethylphthalate	84-66-2	7.3	U 7.3	22	1
10138	Dimethylphthalate	131-11-3	7.3	U 7.3	22	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	11	J 7.3	22	1

\*=This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-012-SA5C-SB-9.0-10.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-012-SA5C-SB-9.0-10.0

**LLI Sample #** SW 6162878  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/09/2010 13:14

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3321 SDG#: DE033-21

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS Semivolatiles SW-846 8270C SIM</b>							
10138	Fluoranthene	206-44-0	6.3	0.82	2.0		1
10138	Fluorene	86-73-7	0.82 U	0.82	2.0		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.84 J	0.82	2.0		1
10138	1-Methylnaphthalene	90-12-0	0.82 U	0.82	2.0		1
10138	2-Methylnaphthalene	91-57-6	0.82 U	0.82	2.0		1
10138	Naphthalene	91-20-3	0.82 U	0.82	2.0		1
10138	N-Nitrosodimethylamine	62-75-9	0.82 U	0.82	2.0		1
10138	Di-n-octylphthalate	117-84-0	7.3 U	7.3	22		1
10138	Phenanthrene	85-01-8	1.1 J	0.82	2.0		1
10138	Pyrene	129-00-0	6.0	0.82	2.0		1
Bis(2-ethylhexyl)phthalate was detected in the method blank at a concentration of 6.5 ug/kg. The blank value was not subtracted from the analytical result.							
<b>GC Volatiles TPH GRO SW-846 8015B mod</b>							
05551	9a TPH by EPA 8015B Gas C5-C12	n.a.	0.2 U	0.2	1.1		22.12
<b>Explosives SW-846 8330A</b>							
10132	4-Amino-2,6-Dinitrotoluene	19406-51-0	92 U	92	180	1000000	1
10132	2-Amino-4,6-Dinitrotoluene	35572-78-2	61 U	61	180	1000000	1
10132	2,6-Diamino-4-nitrotoluene	59229-75-3	120 U	120	370	1000000	1
10132	2,4-Diamino-6-nitrotoluene	6629-29-4	120 U	120	370	1000000	1
10132	1,3-Dinitrobenzene	99-65-0	61 U	61	180	1000000	1
10132	2,4-Dinitrotoluene	121-14-2	61 U	61	180	1000000	1
10132	2,6-Dinitrotoluene	606-20-2	61 U	61	180	1000000	1
10132	HMX	2691-41-0	150 U	150	460	1000000	1
10132	Nitrobenzene	98-95-3	61 U	61	180	1000000	1
10132	Nitroglycerin	55-63-0	1,200 U	1,200	3,700	1000000	1
10132	2-Nitrotoluene	88-72-2	120 U	120	180	1000000	1
10132	3-Nitrotoluene	99-08-1	150 U	150	180	1000000	1
10132	4-Nitrotoluene	99-99-0	120 U	120	180	1000000	1
10132	PETN	78-11-5	1,200 U	1,200	3,700	1000000	1
10132	RDX	121-82-4	76 U	76	180	1000000	1

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**Sample Description:** SL-012-SA5C-SB-9.0-10.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-012-SA5C-SB-9.0-10.0

**LLI Sample #** SW 6162878  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/09/2010 13:14

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3321 SDG#: DE033-21

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Explosives</b>							
		<b>SW-846 8330A</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10132	Tetryl	479-45-8	94	U 94	180	1000000	1
10132	1,3,5-Trinitrobenzene	99-35-4	61	U 61	180	1000000	1
10132	2,4,6-Trinitrotoluene	118-96-7	61	U 61	180	1000000	1
<b>HPLC Organics</b>							
		<b>SW-846 8315A</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04173	17a Formaldehyde by	8315A 50-00-0	730	U 730	1,800		1
<b>Pesticides/PCBs</b>							
		<b>SW-846 8082</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10225	Aroclor 5432	63496-31-1	1.2	U 1.2	4.0		1
10225	Aroclor 5442	12642-23-8	1.2	U 1.2	4.0		1
10225	Aroclor 5460	11126-42-4	1.2	U 1.2	4.0		1
10225	PCB-1016	12674-11-2	0.40	U 0.40	2.1		1
10225	PCB-1221	11104-28-2	0.61	U 0.61	2.1		1
10225	PCB-1232	11141-16-5	0.64	U 0.64	2.1		1
10225	PCB-1242	53469-21-9	0.61	U 0.61	2.1		1
10225	PCB-1248	12672-29-6	2.1	U 0.40	2.1		1
10225	PCB-1254	11097-69-1	1.1	J 0.40	2.1		1
10225	PCB-1260	11096-82-5	0.81	J 0.40	2.1		1
10225	PCB-1262	37324-23-5	0.40	U 0.40	2.1		1
10225	PCB-1268	11100-14-4	0.40	U 0.40	2.1		1
The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.							
<b>GC Extractable TPH</b>							
		<b>SW-846 8015B modified</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
10199	EFH (C12-C14)	n.a.	0.49	U 0.49	1.5		1
10199	EFH (C15-C20)	n.a.	0.49	U 0.49	1.5		1
10199	EFH (C21-C30)	n.a.	10	U 0.49	1.5		1
10199	EFH (C30 - C40)	n.a.	24	U 0.49	1.5		1
10199	EFH (C8-C11)	n.a.	0.49	U 0.49	1.5		1
<b>GC Miscellaneous</b>							
		<b>SW-846 8015B</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10501	Ethanol	64-17-5	330	J 120	610		1
10501	Isopropanol	67-63-0	120	U 120	610		1
10501	Methanol	67-56-1	140	J 120	610		1
<b>GC Miscellaneous</b>							
		<b>SW-846 8015B modified</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
08283	Diethylene glycol	111-46-6	6.1	U 6.1	15		1
08283	Ethylene glycol	107-21-1	6.1	U 6.1	15		1
08283	Propylene glycol	57-55-6	6.1	U 6.1	15		1
<b>Terphenyls</b>							
		<b>SW-846 8015B</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
10318	m-Terphenyl	92-06-8	1.8	U 1.8	4.3		1

\*—This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-012-SA5C-SB-9.0-10.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-012-SA5C-SB-9.0-10.0

**LLI Sample #** SW 6162878  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/09/2010 13:14

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3321 SDG#: DE033-21

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Terphenyls</b>		<b>SW-846 8015B</b>	<b>mg/kg</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
10318	o-Terphenyl	84-15-1	1.8	U	1.8	4.3		1
10318	p-Terphenyl	92-94-4	1.8	U	1.8	4.3		1
<b>Metals</b>		<b>SW-846 6010B</b>	<b>mg/kg</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
01643	Aluminum	7429-90-5	12,000		6.03	24.0		1
07914	Boron	7440-42-8	3.90	J	1.07	5.99		1
01650	Calcium	7440-70-2	5,110		7.35	24.0		1
01654	Iron	7439-89-6	17,400		5.65	24.0		1
01656	Lithium	7439-93-2	15.0		0.26	2.4		1
01657	Magnesium	7439-95-4	4,030		3.04	12.0		1
06958	Manganese	7439-96-5	207		0.0935	0.599		1
10145	Phosphorus	7723-14-0	491		0.671	12.0		1
01662	Potassium	7440-09-7	2,440		21.6	59.9		1
01667	Sodium	7440-23-5	166		44.7	120		1
07968	Strontium	7440-24-6	36.2		0.0743	0.599		1
06969	Tin	7440-31-5	2.13	J	1.20	12.0		1
06970	Titanium	7440-32-6	942		0.451	1.19		1
10146	Zirconium	7440-67-7	4.32	J	1.01	5.99		1
		<b>SW-846 6020</b>	<b>mg/kg</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
06124	Antimony	7440-36-0	0.134	J	0.0733	0.244		2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.								
06125	Arsenic	7440-38-2	6.79		0.0733	0.489		2
06126	Barium	7440-39-3	99.4		0.132	0.489		2
06127	Beryllium	7440-41-7	0.442		0.0196	0.122		2
06128	Cadmium	7440-43-9	0.195		0.0440	0.122		2
06131	Chromium	7440-47-3	37.3		0.147	0.489		2
06132	Cobalt	7440-48-4	7.59		0.0244	0.122		2
06133	Copper	7440-50-8	10.3		0.0807	0.489		2
06135	Lead	7439-92-1	5.41		0.0127	0.244		2
06138	Molybdenum	7439-98-7	3.87		0.0611	0.122		2
06139	Nickel	7440-02-0	19.3		0.122	0.489		2
06141	Selenium	7782-49-2	0.0888	J	0.0489	0.489		2
06142	Silver	7440-22-4	0.0168	J	0.0147	0.122		2
06145	Thallium	7440-28-0	0.254		0.0367	0.122		2
06148	Vanadium	7440-62-2	45.5		0.0269	0.122		2
06149	Zinc	7440-66-6	55.6		0.685	3.67		2
		<b>SW-846 7471A</b>	<b>mg/kg</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
00159	Mercury	7439-97-6	0.0035	U	0.0035	0.121		1
<b>Wet Chemistry</b>		<b>EPA 300.0</b>	<b>mg/kg</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	5.1		0.98	1.2		1
07336	11a Anions by 300.0 - Nitrate	14797-55-8	1.5	J	0.98	1.8		1
		<b>SW-846 7199</b>	<b>mg/kg</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	

\*—This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.



# Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

**Sample Description:** SL-012-SA5C-SB-9.0-10.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-012-SA5C-SB-9.0-10.0

**LLI Sample #** SW 6162878  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/09/2010 13:14

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3321 SDG#: DE033-21

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Wet Chemistry SW-846 7199</b>							
05892	3a Cr VI by EPA 7199	18540-29-9	0.24 U	0.24	mg/kg	mg/kg	1
<b>SW-846 9012B</b>							
05895	21a Cyanide by 9012B	57-12-5	0.21 U	0.21	mg/kg	mg/kg	1
<b>ASTM D1498</b>							
01821	Oxidation Reduction Potential	n.a.	434	10.0	mV	mV	1
The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.							
<b>SW-846 9045C modified</b>							
00394	22a pH by 9045C	n.a.	7.49	0.0100	Std. Units	Std. Units	1
<b>Wet Chemistry EPA 160.3 modified</b>							
11624	28a Moisture Content by 160.3	n.a.	18.2	0.50	%	%	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.							

### General Sample Comments

State of California Lab Certification No. 2501  
 The volatile analysis was performed on soil from SL-012-SA5C-SB-9.5.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06192	1a Volatile Organics EPA 8260B	SW-846 8260B	1	B103481AA	12/14/2010 18:40	Nicholas R Rossi	0.92
10326	14a 1,4-Dioxane by 8260B SIM	SW-846 8260B SIM	1	E103492AA	12/15/2010 19:34	Jason M Long	22.05
08390	GC/MS - HL Encore Prep	SW-846 5035	1	201034723287	12/10/2010 20:53	Christopher D Meeks	n.a.
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035	1	201034723287	12/13/2010 15:50	Christopher D Meeks	n.a.
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035	2	201034723287	12/13/2010 15:50	Christopher D Meeks	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035	1	201034723287	12/10/2010 20:53	Christopher D Meeks	n.a.
11622	19a NDMA by 1625C	EPA 1625C	1	10350SLF026	12/29/2010 13:02	Timothy J Trees	1

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**Sample Description: SL-012-SA5C-SB-9.0-10.0 Soil**  
**SSFL Area IV Collocated Soil Sampling**  
**SL-012-SA5C-SB-9.0-10.0**

**LLI Sample # SW 6162878**  
**LLI Group # 1225035**  
**Account # 13013**

**Project Name: SSFL Area IV Collocated Soil Sampling**

Collected: 12/09/2010 13:14

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3321 SDG#: DE033-21

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10348SLG026	12/23/2010 04:27	Ryan P Byrne	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10349SLF026	12/21/2010 15:13	Mark A Clark	1
11630	NDMA Soil Microwave	SW-846 3546	1	10350SLF026	12/17/2010 01:00	Sherry L Morrow	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10349SLF026	12/16/2010 07:00	Joseph S Feister	1
00381	BNA Soil Sonication	SW-846 3550B	1	10348SLG026	12/15/2010 07:05	Joseph S Feister	1
05551	9a TPH by EPA 8015B Gas C5-C12	TPH GRO SW-846 8015B mod	1	10348A34A	12/15/2010 09:04	Marie D John	22.12
06130	GC - 5 g HL Encore Prep	SW-846 5035	1	201034723287	12/10/2010 20:54	Christopher D Meeks	n.a.
10132	20a Energetics by 8330A	SW-846 8330A	1	103510022A	12/21/2010 13:52	Michele D Hamilton	1
04173	17a Formaldehyde by 8315A	SW-846 8315A	1	103480008A	12/17/2010 19:47	Michele D Hamilton	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	103490013A	12/19/2010 14:30	Lindsey K Lafferty	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	103490013A	12/15/2010 21:05	Karen L Beyer	1
05876	Formaldehyde Solid Extraction	SW-846 8315A	1	103480008A	12/14/2010 15:00	Kelli M Barto	1
11137	Energetics Extraction	SW-846 8330	1	103510022A	12/19/2010 17:00	Wanda F Oswald	1
10199	9a TPH by EPA 8015B Oil/Diesel	SW-846 8015B modified	1	103490010A	12/21/2010 08:24	Heather E Williams	1
10501	25a Alcohols by 8015B	SW-846 8015B	1	103480003A	12/15/2010 16:39	Dustin A Underkoffler	1
08283	27a Glycols by 8015B	SW-846 8015B modified	1	103480019A	12/16/2010 16:09	Robert Brown	1
10318	26a Terphenyls by 8015B	SW-846 8015B	1	103500031A	12/17/2010 23:47	Heather E Williams	1
11238	EFH Extraction - Soils	SW-846 3550B	1	103490010A	12/15/2010 19:30	Sally L Appleyard	1
10303	Terphenyls soil prep	SW-846 3550B	1	103500031A	12/17/2010 07:00	Kerrie A Freeburn	1
11551	Direct Inj. Solids Glycol Ext.	SW-846 8015B	1	103480019A	12/15/2010 12:00	Dustin A Underkoffler	1
00380	Direct Injection Solids Ext	SW-846 8015B	1	103480003A	12/15/2010 12:00	Dustin A Underkoffler	1
01643	Aluminum	SW-846 6010B	1	103495708002	12/16/2010 18:03	Eric L Eby	1
07914	Boron	SW-846 6010B	1	103495708002	12/16/2010 06:04	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	103495708002	12/16/2010 06:04	Tara L Snyder	1
01654	Iron	SW-846 6010B	1	103495708002	12/16/2010 06:04	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	103495708002	12/16/2010 06:04	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	103495708002	12/16/2010 06:04	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	103495708002	12/16/2010 06:04	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	103495708002	12/16/2010 06:04	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	103495708002	12/16/2010 06:04	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	103495708002	12/16/2010 06:04	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	103495708002	12/16/2010 06:04	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	103495708002	12/16/2010 06:04	Tara L Snyder	1
06970	Titanium	SW-846 6010B	1	103505708003	12/20/2010 18:02	John P Hook	1
10146	Zirconium	SW-846 6010B	1	103495708002	12/16/2010 06:04	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	103491026002A	12/17/2010 16:17	Choon Y Tian	2

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**Sample Description:** SL-012-SA5C-SB-9.0-10.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-012-SA5C-SB-9.0-10.0

**LLI Sample #** SW 6162878  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/09/2010 13:14

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3321 SDG#: DE033-21

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
06125	Arsenic	SW-846 6020	1	103491026002A	12/17/2010	16:17	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103491026002D	12/17/2010	16:17	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103491026002A	12/17/2010	16:17	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103491026002A	12/17/2010	16:17	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103491026002A	12/17/2010	16:17	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103491026002A	12/17/2010	16:17	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103491026002A	12/17/2010	16:17	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103491026002A	12/17/2010	16:17	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103491026002C	12/17/2010	16:17	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103491026002A	12/17/2010	16:17	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103491026002B	12/17/2010	16:17	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103491026002A	12/17/2010	16:17	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103491026002A	12/17/2010	16:17	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103491026002A	12/17/2010	16:17	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	103491026002A	12/17/2010	16:17	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	103495711002	12/15/2010	20:10	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	103495708002	12/15/2010	10:35	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	103505708003	12/17/2010	19:17	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103491026002	12/15/2010	11:08	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	103495711002	12/15/2010	12:17	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10352352201B	12/20/2010	19:51	Ashley M Adams	1
07336	11a Anions by 300.0 - Nitrate	EPA 300.0	1	10352352201B	12/20/2010	19:51	Ashley M Adams	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	10356243201A	12/28/2010	23:14	Ashley M Adams	1
05895	21a Cyanide by 9012B	SW-846 9012B	1	10357102201A	12/23/2010	19:45	Joseph E McKenzie	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10352352201B	12/19/2010	16:30	Joseph E McKenzie	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	10357102201A	12/23/2010	15:10	Carolyn M Mastropietro	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10348182102A	12/14/2010	10:45	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10348039402A	12/14/2010	10:45	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10356243201A	12/22/2010	20:10	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	1	10364162401B	12/31/2010	05:52	William C Schwebel	1

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 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-013-SA5C-SB-4.0-5.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-013-SA5C-SB-4.0-5.0

LLI Sample # SW 6162879  
 LLI Group # 1225035  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/09/2010 13:44

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3322 SDG#: DE033-22

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
06192	Acetone	67-64-1	6.3 U	6.3	7.6		0.86
06192	Benzene	71-43-2	0.09 U	0.09	3.8		0.86
06192	Bromobenzene	108-86-1	0.12 U	0.12	3.8		0.86
06192	Bromochloromethane	74-97-5	0.31 U	0.31	3.8		0.86
06192	Bromodichloromethane	75-27-4	0.08 U	0.08	3.8		0.86
06192	Bromoform	75-25-2	0.38 U	0.38	3.8		0.86
06192	Bromomethane	74-83-9	0.24 U	0.24	3.8		0.86
06192	2-Butanone	78-93-3	1.2 U	1.2	7.6		0.86
06192	n-Butylbenzene	104-51-8	0.11 U	0.11	3.8		0.86
06192	sec-Butylbenzene	135-98-8	0.06 U	0.06	3.8		0.86
06192	tert-Butylbenzene	98-06-6	0.15 U	0.15	3.8		0.86
06192	Carbon Tetrachloride	56-23-5	0.13 U	0.13	3.8		0.86
06192	Chlorobenzene	108-90-7	0.10 U	0.10	3.8		0.86
06192	Chloroethane	75-00-3	0.12 U	0.12	3.8		0.86
06192	2-Chloroethyl Vinyl Ether	110-75-8	0.28 U	0.28	3.8		0.86
06192	Chloroform	67-66-3	0.11 U	0.11	3.8		0.86
06192	Chloromethane	74-87-3	0.31 U	0.31	3.8		0.86
06192	2-Chlorotoluene	95-49-8	0.13 U	0.13	3.8		0.86
06192	4-Chlorotoluene	106-43-4	0.13 U	0.13	3.8		0.86
06192	Chlorotrifluoroethene	79-38-9	0.47 U	0.47	4.7		0.86
06192	1,2-Dibromo-3-chloropropane	96-12-8	0.66 U	0.66	3.8		0.86
06192	Dibromochloromethane	124-48-1	0.19 U	0.19	3.8		0.86
06192	1,2-Dibromoethane	106-93-4	0.16 U	0.16	3.8		0.86
06192	Dibromomethane	74-95-3	0.23 U	0.23	3.8		0.86
06192	1,2-Dichlorobenzene	95-50-1	0.09 U	0.09	3.8		0.86
06192	1,3-Dichlorobenzene	541-73-1	0.11 U	0.11	3.8		0.86
06192	1,4-Dichlorobenzene	106-46-7	0.15 U	0.15	3.8		0.86
06192	Dichlorodifluoromethane	75-71-8	0.11 U	0.11	3.8		0.86
06192	1,1-Dichloroethane	75-34-3	0.09 U	0.09	3.8		0.86
06192	1,2-Dichloroethane	107-06-2	0.14 U	0.14	3.8		0.86
06192	1,1-Dichloroethene	75-35-4	0.37 U	0.37	3.8		0.86
06192	cis-1,2-Dichloroethene	156-59-2	0.18 U	0.18	3.8		0.86
06192	trans-1,2-Dichloroethene	156-60-5	0.11 U	0.11	3.8		0.86
06192	1,2-Dichloropropane	78-87-5	0.16 U	0.16	3.8		0.86
06192	1,3-Dichloropropane	142-28-9	0.08 U	0.08	3.8		0.86
06192	2,2-Dichloropropane	594-20-7	0.16 U	0.16	3.8		0.86
06192	1,1-Dichloropropene	563-58-6	0.12 U	0.12	3.8		0.86
06192	cis-1,3-Dichloropropene	10061-01-5	0.15 U	0.15	3.8		0.86
06192	trans-1,3-Dichloropropene	10061-02-6	0.16 U	0.16	3.8		0.86
06192	Ethylbenzene	100-41-4	0.06 U	0.06	3.8		0.86
06192	Freon 113	76-13-1	0.10 U	0.10	3.8		0.86
06192	Freon 133a	75-88-7	0.47 U	0.47	4.7		0.86
06192	Hexachlorobutadiene	87-68-3	0.13 U	0.13	3.8		0.86
06192	2-Hexanone	591-78-6	1.5 U	1.5	7.6		0.86
06192	Isopropylbenzene	98-82-8	0.06 U	0.06	3.8		0.86
06192	p-Isopropyltoluene	99-87-6	0.10 U	0.10	3.8		0.86
06192	Methyl Tertiary Butyl Ether	1634-04-4	0.20 U	0.20	3.8		0.86
06192	4-Methyl-2-pentanone	108-10-1	0.37 U	0.37	7.6		0.86
06192	Methylene Chloride	75-09-2	0.49 J	0.23	3.8		0.86
06192	n-Propylbenzene	103-65-1	0.07 U	0.07	3.8		0.86

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**Sample Description:** SL-013-SA5C-SB-4.0-5.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-013-SA5C-SB-4.0-5.0

LLI Sample # SW 6162879  
 LLI Group # 1225035  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/09/2010 13:44

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3322 SDG#: DE033-22

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS Volatiles SW-846 8260B</b>							
06192	Styrene	100-42-5	0.09 U	0.09	3.8		0.86
06192	1,1,1,2-Tetrachloroethane	630-20-6	0.10 U	0.10	3.8		0.86
06192	1,1,2,2-Tetrachloroethane	79-34-5	0.22 U	0.22	3.8		0.86
06192	Tetrachloroethene	127-18-4	0.19 U	0.19	3.8		0.86
06192	Toluene	108-88-3	0.08 U	0.08	3.8		0.86
06192	1,2,3-Trichlorobenzene	87-61-6	0.13 U	0.13	3.8		0.86
06192	1,2,4-Trichlorobenzene	120-82-1	0.17 U	0.17	3.8		0.86
06192	1,1,1-Trichloroethane	71-55-6	0.19 U	0.19	3.8		0.86
06192	1,1,2-Trichloroethane	79-00-5	0.26 U	0.26	3.8		0.86
06192	Trichloroethene	79-01-6	0.14 U	0.14	3.8		0.86
06192	Trichlorofluoromethane	75-69-4	0.27 U	0.27	3.8		0.86
06192	1,2,3-Trichloropropane	96-18-4	0.31 U	0.31	3.8		0.86
06192	1,2,4-Trimethylbenzene	95-63-6	0.38 U	0.38	3.8		0.86
06192	1,3,5-Trimethylbenzene	108-67-8	0.09 U	0.09	3.8		0.86
06192	Vinyl Chloride	75-01-4	0.19 U	0.19	3.8		0.86
06192	m+p-Xylene	179601-23-1	0.16 U	0.16	3.8		0.86
06192	o-Xylene	95-47-6	0.16 U	0.16	3.8		0.86
<b>GC/MS Volatiles SW-846 8260B SIM</b>							
10326	1,4-Dioxane	123-91-1	4.7 U	4.7	14		21.63
<b>GC/MS Semivolatiles EPA 1625C</b>							
11622	N-Nitrosodimethylamine	62-75-9	56.3	18.3	36.5		1
<b>GC/MS Semivolatiles SW-846 8270C</b>							
04688	Aniline	62-53-3	180	U 180	550		1
04688	Benzidine	92-87-5	1,300	U 1,300	3,700		1
04688	Benzoic acid	65-85-0	180	U 180	550		1
04688	Benzyl alcohol	100-51-6	180	U 180	550		1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180		1
04688	Carbazole	86-74-8	18	U 18	180		1
04688	4-Chloro-3-methylphenol	59-50-7	37	U 37	180		1
04688	4-Chloroaniline	106-47-8	73	U 73	180		1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180		1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180		1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180		1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180		1
04688	2-Chlorophenol	95-57-8	18	U 18	180		1
04688	4-Chlorophenyl-phenylether	7005-72-3	37	U 37	180		1
04688	Dibenzofuran	132-64-9	18	U 18	180		1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180		1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180		1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180		1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	370		1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180		1
04688	2,4-Dimethylphenol	105-67-9	37	U 37	180		1
04688	3,5-Dimethylphenol	108-68-9	37	U 37	180		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	550		1
04688	2,4-Dinitrophenol	51-28-5	730	U 730	2,200		1

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**Sample Description:** SL-013-SA5C-SB-4.0-5.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-013-SA5C-SB-4.0-5.0

**LLI Sample #** SW 6162879  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/09/2010 13:44

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3322 SDG#: DE033-22

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04688	2,4-Dinitrotoluene	121-14-2	37	U 37	180		1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180		1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180		1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	22	J 18	370		1
04688	Hexachlorobenzene	118-74-1	18	U 18	180		1
04688	Hexachlorobutadiene	87-68-3	73	U 73	180		1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	550		1
04688	Hexachloroethane	67-72-1	18	U 18	180		1
04688	Isophorone	78-59-1	18	U 18	180		1
04688	2-Methylphenol	95-48-7	37	U 37	180		1
04688	4-Methylphenol	106-44-5	37	U 37	180		1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.							
04688	2-Nitroaniline	88-74-4	18	U 18	180		1
04688	3-Nitroaniline	99-09-2	37	U 37	180		1
04688	4-Nitroaniline	100-01-6	73	U 73	180		1
04688	Nitrobenzene	98-95-3	18	U 18	180		1
04688	2-Nitrophenol	88-75-5	18	U 18	180		1
04688	4-Nitrophenol	100-02-7	180	U 180	550		1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180		1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180		1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.							
04688	Pentachlorophenol	87-86-5	180	U 180	550		1
04688	Phenol	108-95-2	18	U 18	180		1
04688	1,2,4-Trichlorobenzene	120-82-1	18	U 18	180		1
04688	2,4,5-Trichlorophenol	95-95-4	37	U 37	180		1
04688	2,4,6-Trichlorophenol	88-06-2	37	U 37	180		1

The LCS recovery is outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance:  
 bis(2-chloroisopropyl)ether

GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	ug/kg
10138	Acenaphthene	83-32-9	0.73	U 0.73	1.8	1
10138	Acenaphthylene	208-96-8	0.37	U 0.37	1.8	1
10138	Anthracene	120-12-7	0.37	U 0.37	1.8	1
10138	Benzo(a)anthracene	56-55-3	2.1	0.73	1.8	1
10138	Benzo(a)pyrene	50-32-8	1.9	0.73	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	3.1	0.73	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	0.73	U 0.73	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	1.4	J 0.73	1.8	1
10138	Butylbenzylphthalate	85-68-7	6.6	U 6.6	20	1
10138	Di-n-butylphthalate	84-74-2	6.6	U 6.6	20	1
10138	Chrysene	218-01-9	2.3	0.37	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.73	U 0.73	1.8	1
10138	Diethylphthalate	84-66-2	6.6	U 6.6	20	1
10138	Dimethylphthalate	131-11-3	6.6	U 6.6	20	1

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**Sample Description:** SL-013-SA5C-SB-4.0-5.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-013-SA5C-SB-4.0-5.0

**LLI Sample #** SW 6162879  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/09/2010 13:44

CDM Federal Programs Corp.  
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Submitted: 12/10/2010 09:15

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E3322 SDG#: DE033-22

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS Semivolatiles SW-846 8270C SIM</b>							
10138	Fluoranthene	206-44-0	4.3	0.73	1.8		1
10138	Fluorene	86-73-7	0.73 U	0.73	1.8		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.73 U	0.73	1.8		1
10138	1-Methylnaphthalene	90-12-0	0.73 U	0.73	1.8		1
10138	2-Methylnaphthalene	91-57-6	0.73 U	0.73	1.8		1
10138	Naphthalene	91-20-3	0.73 U	0.73	1.8		1
10138	N-Nitrosodimethylamine	62-75-9	0.73 U	0.73	1.8		1
10138	Di-n-octylphthalate	117-84-0	6.6 U	6.6	20		1
10138	Phenanthrene	85-01-8	1.2 J	0.73	1.8		1
10138	Pyrene	129-00-0	3.7	0.73	1.8		1
<b>GC Volatiles TPH GRO SW-846 8015B mod</b>							
05551	9a TPH by EPA 8015B Gas C5-C12	n.a.	0.2 U	0.2	1		22.48
<b>Explosives SW-846 8330A</b>							
10132	4-Amino-2,6-Dinitrotoluene	19406-51-0	82	U 82	160	1000000	1
10132	2-Amino-4,6-Dinitrotoluene	35572-78-2	55	U 55	160	1000000	1
10132	2,6-Diamino-4-nitrotoluene	59229-75-3	110	U 110	330	1000000	1
10132	2,4-Diamino-6-nitrotoluene	6629-29-4	110	U 110	330	1000000	1
10132	1,3-Dinitrobenzene	99-65-0	55	U 55	160	1000000	1
10132	2,4-Dinitrotoluene	121-14-2	55	U 55	160	1000000	1
10132	2,6-Dinitrotoluene	606-20-2	55	U 55	160	1000000	1
10132	HMX	2691-41-0	140	U 140	410	1000000	1
10132	Nitrobenzene	98-95-3	55	U 55	160	1000000	1
10132	Nitroglycerin	55-63-0	1,100	U 1,100	3,300	1000000	1
10132	2-Nitrotoluene	88-72-2	110	U 110	160	1000000	1
10132	3-Nitrotoluene	99-08-1	140	U 140	160	1000000	1
10132	4-Nitrotoluene	99-99-0	110	U 110	160	1000000	1
10132	PETN	78-11-5	1,100	U 1,100	3,300	1000000	1
10132	RDX	121-82-4	69	U 69	160	1000000	1
10132	Tetryl	479-45-8	84	U 84	160	1000000	1

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**Sample Description:** SL-013-SA5C-SB-4.0-5.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-013-SA5C-SB-4.0-5.0

LLI Sample # SW 6162879  
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E3322 SDG#: DE033-22

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Explosives</b>							
	<b>SW-846 8330A</b>		<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10132	1,3,5-Trinitrobenzene	99-35-4	55	U 55	160	1000000	1
10132	2,4,6-Trinitrotoluene	118-96-7	55	U 55	160	1000000	1
<b>HPLC Organics</b>							
	<b>SW-846 8315A</b>		<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04173	17a Formaldehyde by 8315A	50-00-0	660	U 660	1,600		1
<b>Pesticides/PCBs</b>							
	<b>SW-846 8082</b>		<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10225	Aroclor 5432	63496-31-1	1.1	U 1.1	3.6		1
10225	Aroclor 5442	12642-23-8	1.1	U 1.1	3.6		1
10225	Aroclor 5460	11126-42-4	1.1	U 1.1	3.6		1
10225	PCB-1016	12674-11-2	0.36	U 0.36	1.9		1
10225	PCB-1221	11104-28-2	0.55	U 0.55	1.9		1
10225	PCB-1232	11141-16-5	0.57	U 0.57	1.9		1
10225	PCB-1242	53469-21-9	0.55	U 0.55	1.9		1
10225	PCB-1248	12672-29-6	0.36	U 0.36	1.9		1
10225	PCB-1254	11097-69-1	1.2	J 0.36	1.9		1
10225	PCB-1260	11096-82-5	0.76	J 0.36	1.9		1
10225	PCB-1262	37324-23-5	0.36	U 0.36	1.9		1
10225	PCB-1268	11100-14-4	0.36	U 0.36	1.9		1
The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.							
<b>GC Extractable TPH</b>							
	<b>SW-846 8015B modified</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
10199	EFH (C12-C14)	n.a.	0.44	U 0.44	1.3		1
10199	EFH (C15-C20)	n.a.	0.48	J 0.44	1.3		1
10199	EFH (C21-C30)	n.a.	15	0.44	1.3		1
10199	EFH (C30 - C40)	n.a.	37	0.44	1.3		1
10199	EFH (C8-C11)	n.a.	0.44	U 0.44	1.3		1
<b>GC Miscellaneous</b>							
	<b>SW-846 8015B</b>		<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10501	Ethanol	64-17-5	260	J 110	550		1
10501	Isopropanol	67-63-0	110	U 110	550		1
10501	Methanol	67-56-1	110	U 110	550		1
<b>GC Miscellaneous</b>							
	<b>SW-846 8015B modified</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
08283	Diethylene glycol	111-46-6	5.5	U 5.5	14		1
08283	Ethylene glycol	107-21-1	5.5	U 5.5	14		1
08283	Propylene glycol	57-55-6	5.5	U 5.5	14		1
<b>Terphenyls</b>							
	<b>SW-846 8015B</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
10318	m-Terphenyl	92-06-8	1.6	U 1.6	3.8		1
10318	o-Terphenyl	84-15-1	1.6	U 1.6	3.8		1
10318	p-Terphenyl	92-94-4	1.6	U 1.6	3.8		1

\*—This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-013-SA5C-SB-4.0-5.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-013-SA5C-SB-4.0-5.0

LLI Sample # SW 6162879  
 LLI Group # 1225035  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/09/2010 13:44

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3322 SDG#: DE033-22

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Metals</b>							
	<b>SW-846 6010B</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
01643	Aluminum	7429-90-5	13,700	5.30	21.1		1
07914	Boron	7440-42-8	2.86 J	0.938	5.27		1
01650	Calcium	7440-70-2	2,910	6.46	21.1		1
01654	Iron	7439-89-6	17,700	4.97	21.1		1
01656	Lithium	7439-93-2	17.9	0.23	2.1		1
01657	Magnesium	7439-95-4	3,530	2.68	10.5		1
06958	Manganese	7439-96-5	243	0.0822	0.527		1
10145	Phosphorus	7723-14-0	287	0.590	10.5		1
01662	Potassium	7440-09-7	2,250	19.0	52.7		1
01667	Sodium	7440-23-5	157	39.3	105		1
07968	Strontium	7440-24-6	16.4	0.0654	0.527		1
06969	Tin	7440-31-5	2.68 J	1.05	10.5		1
06970	Titanium	7440-32-6	1,090	0.801	2.11		2
10146	Zirconium	7440-67-7	1.48 J	0.886	5.27		1
	<b>SW-846 6020</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
06124	Antimony	7440-36-0	0.114 J	0.0651	0.217		2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	8.17	0.0651	0.434		2
06126	Barium	7440-39-3	118	0.117	0.434		2
06127	Beryllium	7440-41-7	0.707	0.0174	0.109		2
06128	Cadmium	7440-43-9	0.170	0.0391	0.109		2
06131	Chromium	7440-47-3	22.3	0.130	0.434		2
06132	Cobalt	7440-48-4	7.27	0.0217	0.109		2
06133	Copper	7440-50-8	10.4	0.0717	0.434		2
06135	Lead	7439-92-1	8.53	0.0113	0.217		2
06138	Molybdenum	7439-98-7	0.824	0.0543	0.109		2
06139	Nickel	7440-02-0	12.8	0.109	0.434		2
06141	Selenium	7782-49-2	0.204 J	0.0434	0.434		2
06142	Silver	7440-22-4	0.0413 J	0.0130	0.109		2
06145	Thallium	7440-28-0	0.350	0.0326	0.109		2
06148	Vanadium	7440-62-2	45.0	0.0239	0.109		2
06149	Zinc	7440-66-6	71.3	0.608	3.26		2
	<b>SW-846 7471A</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
00159	Mercury	7439-97-6	0.0048 J	0.0031	0.107		1
<b>Wet Chemistry</b>							
	<b>EPA 300.0</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	4.5	0.88	1.1		1
07336	11a Anions by 300.0 - Nitrate	14797-55-8	3.2	0.88	1.6		1
	<b>SW-846 7199</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
05892	3a Cr VI by EPA 7199	18540-29-9	0.22 U	0.22	1.1		1
	<b>SW-846 9012B</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
05895	21a Cyanide by 9012B	57-12-5	0.20 U	0.20	0.55		1

\*—This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-013-SA5C-SB-4.0-5.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-013-SA5C-SB-4.0-5.0

**LLI Sample #** SW 6162879  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/09/2010 13:44

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3322 SDG#: DE033-22

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Wet Chemistry</b>		<b>ASTM D1498</b>	mV	mV	mV	mV	
01821	Oxidation Reduction Potential	n.a.	450	10.0	10.0		1
	The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.						
	<b>SW-846 9045C modified</b>		Std. Units	Std. Units	Std. Units	Std. Units	
00394	22a pH by 9045C	n.a.	7.70	0.0100	0.0100		1
<b>Wet Chemistry</b>		<b>EPA 160.3 modified</b>	%	%	%	%	
11624	28a Moisture Content by 160.3	n.a.	8.8	0.50	0.50		1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

### General Sample Comments

State of California Lab Certification No. 2501  
 The volatile analysis was performed on soil from SL-013-SA5C-SB-4.5.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06192	1a Volatile Organics EPA 8260B	SW-846 8260B	1	B103481AA	12/14/2010 19:02	Nicholas R Rossi	0.86
10326	14a 1,4-Dioxane by 8260B SIM	SW-846 8260B SIM	1	E103492AA	12/15/2010 19:54	Jason M Long	21.63
08390	GC/MS - HL Encore Prep	SW-846 5035	1	201034723287	12/10/2010 21:03	Christopher D Meeks	n.a.
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035	1	201034723287	12/13/2010 15:49	Christopher D Meeks	n.a.
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035	2	201034723287	12/13/2010 15:49	Christopher D Meeks	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035	1	201034723287	12/10/2010 21:03	Christopher D Meeks	n.a.
11622	19a NDMA by 1625C	EPA 1625C	1	10350SLF026	12/29/2010 13:18	Timothy J Trees	1
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10348SLG026	12/23/2010 04:54	Ryan P Byrne	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10349SLF026	12/21/2010 15:46	Mark A Clark	1
11630	NDMA Soil Microwave	SW-846 3546	1	10350SLF026	12/17/2010 01:00	Sherry L Morrow	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10349SLF026	12/16/2010 07:00	Joseph S Feister	1
00381	BNA Soil Sonication	SW-846 3550B	1	10348SLG026	12/15/2010 07:05	Joseph S Feister	1
05551	9a TPH by EPA 8015B Gas C5-C12	TPH GRO SW-846 8015B mod	1	10348A34A	12/15/2010 09:40	Marie D John	22.48

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**Sample Description:** SL-013-SA5C-SB-4.0-5.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-013-SA5C-SB-4.0-5.0

**LLI Sample #** SW 6162879  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/09/2010 13:44

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3322 SDG#: DE033-22

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06130	GC - 5 g HL Encore Prep	SW-846 5035	1	201034723287	12/10/2010 21:03	Christopher D Meeks	n.a.
10132	20a Energetics by 8330A	SW-846 8330A	1	103510022A	12/21/2010 14:34	Michele D Hamilton	1
04173	17a Formaldehyde by 8315A	SW-846 8315A	1	103480008A	12/17/2010 19:56	Michele D Hamilton	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	103490013A	12/19/2010 14:49	Lindsey K Lafferty	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	103490013A	12/15/2010 21:05	Karen L Beyer	1
05876	Formaldehyde Solid Extraction	SW-846 8315A	1	103480008A	12/14/2010 15:00	Kelli M Barto	1
11137	Energetics Extraction	SW-846 8330	1	103510022A	12/19/2010 17:00	Wanda F Oswald	1
10199	9a TPH by EPA 8015B Oil/Diesel	SW-846 8015B modified	1	103490010A	12/21/2010 08:49	Heather E Williams	1
10501	25a Alcohols by 8015B	SW-846 8015B	1	103480003A	12/15/2010 16:54	Dustin A Underkoffler	1
08283	27a Glycols by 8015B	SW-846 8015B modified	1	103480019A	12/16/2010 16:25	Robert Brown	1
10318	26a Terphenyls by 8015B	SW-846 8015B	1	103500031A	12/18/2010 07:16	Heather E Williams	1
11238	EFH Extraction - Soils	SW-846 3550B	1	103490010A	12/15/2010 19:30	Sally L Appleyard	1
10303	Terphenyls soil prep	SW-846 3550B	1	103500031A	12/17/2010 07:00	Kerrie A Freeburn	1
11551	Direct Inj. Solids Glycol Ext.	SW-846 8015B	1	103480019A	12/15/2010 12:00	Dustin A Underkoffler	1
00380	Direct Injection Solids Ext	SW-846 8015B	1	103480003A	12/15/2010 12:00	Dustin A Underkoffler	1
01643	Aluminum	SW-846 6010B	1	103495708002	12/16/2010 18:07	Eric L Eby	1
07914	Boron	SW-846 6010B	1	103495708002	12/16/2010 06:08	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	103495708002	12/16/2010 06:08	Tara L Snyder	1
01654	Iron	SW-846 6010B	1	103495708002	12/16/2010 06:08	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	103495708002	12/16/2010 06:08	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	103495708002	12/16/2010 06:08	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	103495708002	12/16/2010 06:08	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	103495708002	12/16/2010 06:08	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	103495708002	12/16/2010 06:08	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	103495708002	12/16/2010 06:08	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	103495708002	12/16/2010 06:08	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	103495708002	12/16/2010 06:08	Tara L Snyder	1
06970	Titanium	SW-846 6010B	1	103505708003	12/20/2010 18:05	John P Hook	2
10146	Zirconium	SW-846 6010B	1	103495708002	12/16/2010 06:08	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	103491026002A	12/17/2010 16:20	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103491026002A	12/17/2010 16:20	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103491026002D	12/17/2010 16:20	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103491026002A	12/17/2010 16:20	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103491026002A	12/17/2010 16:20	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103491026002A	12/17/2010 16:20	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103491026002A	12/17/2010 16:20	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103491026002A	12/17/2010 16:20	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103491026002A	12/17/2010 16:20	Choon Y Tian	2

\*—This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description: SL-013-SA5C-SB-4.0-5.0 Soil**  
**SSFL Area IV Collocated Soil Sampling**  
**SL-013-SA5C-SB-4.0-5.0**

**LLI Sample # SW 6162879**  
**LLI Group # 1225035**  
**Account # 13013**

**Project Name: SSFL Area IV Collocated Soil Sampling**

Collected: 12/09/2010 13:44

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3322 SDG#: DE033-22

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
06138	Molybdenum	SW-846 6020	1	103491026002C	12/17/2010	16:20	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103491026002A	12/17/2010	16:20	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103491026002B	12/17/2010	16:20	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103491026002A	12/17/2010	16:20	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103491026002A	12/17/2010	16:20	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103491026002A	12/17/2010	16:20	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	103491026002A	12/17/2010	16:20	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	103495711002	12/15/2010	20:11	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	103495708002	12/15/2010	10:35	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	103505708003	12/17/2010	19:17	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103491026002	12/15/2010	11:08	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	103495711002	12/15/2010	12:17	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10352352201B	12/20/2010	20:05	Ashley M Adams	1
07336	11a Anions by 300.0 - Nitrate	EPA 300.0	1	10352352201B	12/20/2010	20:05	Ashley M Adams	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	10356243201A	12/28/2010	23:27	Ashley M Adams	1
05895	21a Cyanide by 9012B	SW-846 9012B	1	10357102201A	12/23/2010	19:48	Joseph E McKenzie	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10352352201B	12/19/2010	16:30	Joseph E McKenzie	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	10357102201A	12/23/2010	15:10	Carolyn M Mastropietro	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10348182102A	12/14/2010	10:45	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10348039402A	12/14/2010	10:45	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10356243201A	12/22/2010	20:10	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	1	10364162401B	12/31/2010	05:52	William C Schwebel	1

\*-This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-013-SA5C-SB-9.0-10.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-013-SA5C-SB-9.0-10.0

LLI Sample # SW 6162880  
 LLI Group # 1225035  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/09/2010 13:52

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3323 SDG#: DE033-23\*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
06192	Acetone	67-64-1	6.2 U	6.2	7.4		0.85
06192	Benzene	71-43-2	0.09 U	0.09	3.7		0.85
06192	Bromobenzene	108-86-1	0.12 U	0.12	3.7		0.85
06192	Bromochloromethane	74-97-5	0.31 U	0.31	3.7		0.85
06192	Bromodichloromethane	75-27-4	0.07 U	0.07	3.7		0.85
06192	Bromoform	75-25-2	0.37 U	0.37	3.7		0.85
06192	Bromomethane	74-83-9	0.23 U	0.23	3.7		0.85
06192	2-Butanone	78-93-3	1.1 U	1.1	7.4		0.85
06192	n-Butylbenzene	104-51-8	0.11 U	0.11	3.7		0.85
06192	sec-Butylbenzene	135-98-8	0.06 U	0.06	3.7		0.85
06192	tert-Butylbenzene	98-06-6	0.15 U	0.15	3.7		0.85
06192	Carbon Tetrachloride	56-23-5	0.13 U	0.13	3.7		0.85
06192	Chlorobenzene	108-90-7	0.10 U	0.10	3.7		0.85
06192	Chloroethane	75-00-3	0.12 U	0.12	3.7		0.85
06192	2-Chloroethyl Vinyl Ether	110-75-8	0.28 U	0.28	3.7		0.85
06192	Chloroform	67-66-3	0.11 U	0.11	3.7		0.85
06192	Chloromethane	74-87-3	0.31 U	0.31	3.7		0.85
06192	2-Chlorotoluene	95-49-8	0.13 U	0.13	3.7		0.85
06192	4-Chlorotoluene	106-43-4	0.13 U	0.13	3.7		0.85
06192	Chlorotrifluoroethene	79-38-9	0.46 U	0.46	4.6		0.85
06192	1,2-Dibromo-3-chloropropane	96-12-8	0.65 U	0.65	3.7		0.85
06192	Dibromochloromethane	124-48-1	0.19 U	0.19	3.7		0.85
06192	1,2-Dibromoethane	106-93-4	0.16 U	0.16	3.7		0.85
06192	Dibromomethane	74-95-3	0.22 U	0.22	3.7		0.85
06192	1,2-Dichlorobenzene	95-50-1	0.08 U	0.08	3.7		0.85
06192	1,3-Dichlorobenzene	541-73-1	0.11 U	0.11	3.7		0.85
06192	1,4-Dichlorobenzene	106-46-7	0.15 U	0.15	3.7		0.85
06192	Dichlorodifluoromethane	75-71-8	0.11 U	0.11	3.7		0.85
06192	1,1-Dichloroethane	75-34-3	0.09 U	0.09	3.7		0.85
06192	1,2-Dichloroethane	107-06-2	0.14 U	0.14	3.7		0.85
06192	1,1-Dichloroethene	75-35-4	0.36 U	0.36	3.7		0.85
06192	cis-1,2-Dichloroethene	156-59-2	0.18 U	0.18	3.7		0.85
06192	trans-1,2-Dichloroethene	156-60-5	0.11 U	0.11	3.7		0.85
06192	1,2-Dichloropropane	78-87-5	0.16 U	0.16	3.7		0.85
06192	1,3-Dichloropropane	142-28-9	0.07 U	0.07	3.7		0.85
06192	2,2-Dichloropropane	594-20-7	0.16 U	0.16	3.7		0.85
06192	1,1-Dichloropropene	563-58-6	0.12 U	0.12	3.7		0.85
06192	cis-1,3-Dichloropropene	10061-01-5	0.15 U	0.15	3.7		0.85
06192	trans-1,3-Dichloropropene	10061-02-6	0.16 U	0.16	3.7		0.85
06192	Ethylbenzene	100-41-4	0.06 U	0.06	3.7		0.85
06192	Freon 113	76-13-1	0.10 U	0.10	3.7		0.85
06192	Freon 133a	75-88-7	0.46 U	0.46	4.6		0.85
06192	Hexachlorobutadiene	87-68-3	0.13 U	0.13	3.7		0.85
06192	2-Hexanone	591-78-6	1.5 U	1.5	7.4		0.85
06192	Isopropylbenzene	98-82-8	0.06 U	0.06	3.7		0.85
06192	p-Isopropyltoluene	99-87-6	0.10 U	0.10	3.7		0.85
06192	Methyl Tertiary Butyl Ether	1634-04-4	0.20 U	0.20	3.7		0.85
06192	4-Methyl-2-pentanone	108-10-1	0.36 U	0.36	7.4		0.85
06192	Methylene Chloride	75-09-2	0.80 J	0.22	3.7		0.85
06192	n-Propylbenzene	103-65-1	0.06 U	0.06	3.7		0.85

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**Sample Description:** SL-013-SA5C-SB-9.0-10.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-013-SA5C-SB-9.0-10.0

LLI Sample # SW 6162880  
 LLI Group # 1225035  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/09/2010 13:52

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3323 SDG#: DE033-23\*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS Volatiles SW-846 8260B</b>							
06192	Styrene	100-42-5	0.09 U	0.09	3.7		0.85
06192	1,1,1,2-Tetrachloroethane	630-20-6	0.10 U	0.10	3.7		0.85
06192	1,1,2,2-Tetrachloroethane	79-34-5	0.21 U	0.21	3.7		0.85
06192	Tetrachloroethene	127-18-4	0.19 U	0.19	3.7		0.85
06192	Toluene	108-88-3	0.07 U	0.07	3.7		0.85
06192	1,2,3-Trichlorobenzene	87-61-6	0.13 U	0.13	3.7		0.85
06192	1,2,4-Trichlorobenzene	120-82-1	0.17 U	0.17	3.7		0.85
06192	1,1,1-Trichloroethane	71-55-6	0.19 U	0.19	3.7		0.85
06192	1,1,2-Trichloroethane	79-00-5	0.25 U	0.25	3.7		0.85
06192	Trichloroethene	79-01-6	0.14 U	0.14	3.7		0.85
06192	Trichlorofluoromethane	75-69-4	0.27 U	0.27	3.7		0.85
06192	1,2,3-Trichloropropane	96-18-4	0.31 U	0.31	3.7		0.85
06192	1,2,4-Trimethylbenzene	95-63-6	0.37 U	0.37	3.7		0.85
06192	1,3,5-Trimethylbenzene	108-67-8	0.09 U	0.09	3.7		0.85
06192	Vinyl Chloride	75-01-4	0.19 U	0.19	3.7		0.85
06192	m+p-Xylene	179601-23-1	0.16 U	0.16	3.7		0.85
06192	o-Xylene	95-47-6	0.16 U	0.16	3.7		0.85
<b>GC/MS Volatiles SW-846 8260B SIM</b>							
10326	1,4-Dioxane	123-91-1	4.8 U	4.8	14		21.74
<b>GC/MS Semivolatiles EPA 1625C</b>							
11622	N-Nitrosodimethylamine	62-75-9	106	18.3	36.5		1
<b>GC/MS Semivolatiles SW-846 8270C</b>							
04688	Aniline	62-53-3	180	U 180	550		1
04688	Benzidine	92-87-5	1,300	U 1,300	3,700		1
04688	Benzoic acid	65-85-0	180	U 180	550		1
04688	Benzyl alcohol	100-51-6	180	U 180	550		1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180		1
04688	Carbazole	86-74-8	18	U 18	180		1
04688	4-Chloro-3-methylphenol	59-50-7	37	U 37	180		1
04688	4-Chloroaniline	106-47-8	73	U 73	180		1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180		1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180		1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180		1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180		1
04688	2-Chlorophenol	95-57-8	18	U 18	180		1
04688	4-Chlorophenyl-phenylether	7005-72-3	37	U 37	180		1
04688	Dibenzofuran	132-64-9	18	U 18	180		1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180		1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180		1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180		1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	370		1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180		1
04688	2,4-Dimethylphenol	105-67-9	37	U 37	180		1
04688	3,5-Dimethylphenol	108-68-9	37	U 37	180		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	550		1
04688	2,4-Dinitrophenol	51-28-5	730	U 730	2,200		1

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**Sample Description:** SL-013-SA5C-SB-9.0-10.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-013-SA5C-SB-9.0-10.0

**LLI Sample #** SW 6162880  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/09/2010 13:52

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3323 SDG#: DE033-23\*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04688	2,4-Dinitrotoluene	121-14-2	37	U 37	180		1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180		1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180		1
04688	Hexachlorobenzene	118-74-1	18	U 18	180		1
04688	Hexachlorobutadiene	87-68-3	73	U 73	180		1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	550		1
04688	Hexachloroethane	67-72-1	18	U 18	180		1
04688	Isophorone	78-59-1	18	U 18	180		1
04688	2-Methylphenol	95-48-7	37	U 37	180		1
04688	4-Methylphenol	106-44-5	37	U 37	180		1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.							
04688	2-Nitroaniline	88-74-4	18	U 18	180		1
04688	3-Nitroaniline	99-09-2	37	U 37	180		1
04688	4-Nitroaniline	100-01-6	73	U 73	180		1
04688	Nitrobenzene	98-95-3	18	U 18	180		1
04688	2-Nitrophenol	88-75-5	18	U 18	180		1
04688	4-Nitrophenol	100-02-7	180	U 180	550		1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180		1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180		1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.							
04688	Pentachlorophenol	87-86-5	180	U 180	550		1
04688	Phenol	108-95-2	18	U 18	180		1
04688	1,2,4-Trichlorobenzene	120-82-1	18	U 18	180		1
04688	2,4,5-Trichlorophenol	95-95-4	37	U 37	180		1
04688	2,4,6-Trichlorophenol	88-06-2	37	U 37	180		1

The LCS recovery is outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: bis(2-chloroisopropyl)ether

GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	ug/kg
10138	Acenaphthene	83-32-9	0.73	U 0.73	1.8	1
10138	Acenaphthylene	208-96-8	0.37	U 0.37	1.8	1
10138	Anthracene	120-12-7	0.37	U 0.37	1.8	1
10138	Benzo(a)anthracene	56-55-3	2.0	U 0.73	1.8	1
10138	Benzo(a)pyrene	50-32-8	2.0	U 0.73	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	3.6	U 0.73	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	0.73	U 0.73	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	1.6	J 0.73	1.8	1
10138	Butylbenzylphthalate	85-68-7	15	J 6.6	20	1
10138	Di-n-butylphthalate	84-74-2	6.6	U 6.6	20	1
10138	Chrysene	218-01-9	3.1	U 0.37	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.73	U 0.73	1.8	1
10138	Diethylphthalate	84-66-2	6.6	U 6.6	20	1
10138	Dimethylphthalate	131-11-3	6.6	U 6.6	20	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	33	U 6.6	20	1

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**Sample Description:** SL-013-SA5C-SB-9.0-10.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-013-SA5C-SB-9.0-10.0

**LLI Sample #** SW 6162880  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/09/2010 13:52

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3323 SDG#: DE033-23\*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS Semivolatiles SW-846 8270C SIM</b>							
10138	Fluoranthene	206-44-0	3.5	0.73	1.8		1
10138	Fluorene	86-73-7	0.73 U	0.73	1.8		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.73 U	0.73	1.8		1
10138	1-Methylnaphthalene	90-12-0	0.73 U	0.73	1.8		1
10138	2-Methylnaphthalene	91-57-6	0.73 U	0.73	1.8		1
10138	Naphthalene	91-20-3	0.73 U	0.73	1.8		1
10138	N-Nitrosodimethylamine	62-75-9	0.73 U	0.73	1.8		1
10138	Di-n-octylphthalate	117-84-0	6.6 U	6.6	20		1
10138	Phenanthrene	85-01-8	0.99 J	0.73	1.8		1
10138	Pyrene	129-00-0	3.8	0.73	1.8		1
Bis(2-ethylhexyl)phthalate was detected in the method blank at a concentration of 6.5 ug/kg. The blank value was not subtracted from the analytical result.							
<b>GC Volatiles TPH GRO SW-846 8015B mod</b>							
05551	9a TPH by EPA 8015B Gas C5-C12	n.a.	0.2 U	0.2	0.9		21.33
<b>Explosives SW-846 8330A</b>							
10132	4-Amino-2,6-Dinitrotoluene	19406-51-0	82 U	82	160	1000000	1
10132	2-Amino-4,6-Dinitrotoluene	35572-78-2	55 U	55	160	1000000	1
10132	2,6-Diamino-4-nitrotoluene	59229-75-3	110 U	110	330	1000000	1
10132	2,4-Diamino-6-nitrotoluene	6629-29-4	110 U	110	330	1000000	1
10132	1,3-Dinitrobenzene	99-65-0	55 U	55	160	1000000	1
10132	2,4-Dinitrotoluene	121-14-2	55 U	55	160	1000000	1
10132	2,6-Dinitrotoluene	606-20-2	55 U	55	160	1000000	1
10132	HMX	2691-41-0	140 U	140	410	1000000	1
10132	Nitrobenzene	98-95-3	55 U	55	160	1000000	1
10132	Nitroglycerin	55-63-0	1,100 U	1,100	3,300	1000000	1
10132	2-Nitrotoluene	88-72-2	110 U	110	160	1000000	1
10132	3-Nitrotoluene	99-08-1	140 U	140	160	1000000	1
10132	4-Nitrotoluene	99-99-0	110 U	110	160	1000000	1
10132	PETN	78-11-5	1,100 U	1,100	3,300	1000000	1
10132	RDX	121-82-4	69 U	69	160	1000000	1

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 SSFL Area IV Collocated Soil Sampling  
 SL-013-SA5C-SB-9.0-10.0

**LLI Sample #** SW 6162880  
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E3323 SDG#: DE033-23\*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Explosives</b>							
		<b>SW-846 8330A</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10132	Tetryl	479-45-8	84	U 84	160	1000000	1
10132	1,3,5-Trinitrobenzene	99-35-4	55	U 55	160	1000000	1
10132	2,4,6-Trinitrotoluene	118-96-7	55	U 55	160	1000000	1
<b>HPLC Organics</b>							
		<b>SW-846 8315A</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04173	17a Formaldehyde by	8315A 50-00-0	660	U 660	1,600		1
<b>Pesticides/PCBs</b>							
		<b>SW-846 8082</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10225	Aroclor 5432	63496-31-1	1.1	U 1.1	3.6		1
10225	Aroclor 5442	12642-23-8	1.1	U 1.1	3.6		1
10225	Aroclor 5460	11126-42-4	1.1	U 1.1	3.6		1
10225	PCB-1016	12674-11-2	0.36	U 0.36	1.9		1
10225	PCB-1221	11104-28-2	0.55	U 0.55	1.9		1
10225	PCB-1232	11141-16-5	0.57	U 0.57	1.9		1
10225	PCB-1242	53469-21-9	0.55	U 0.55	1.9		1
10225	PCB-1248	12672-29-6	0.36	U 0.36	1.9		1
10225	PCB-1254	11097-69-1	0.79	J 0.36	1.9		1
10225	PCB-1260	11096-82-5	0.56	J 0.36	1.9		1
10225	PCB-1262	37324-23-5	0.36	U 0.36	1.9		1
10225	PCB-1268	11100-14-4	0.36	U 0.36	1.9		1
The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.							
<b>GC Extractable TPH</b>							
		<b>SW-846 8015B modified</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
10199	EFH (C12-C14)	n.a.	0.44	U 0.44	1.3		1
10199	EFH (C15-C20)	n.a.	1.3	J 0.44	1.3		1
10199	EFH (C21-C30)	n.a.	12	U 0.44	1.3		1
10199	EFH (C30 - C40)	n.a.	29	U 0.44	1.3		1
10199	EFH (C8-C11)	n.a.	0.44	U 0.44	1.3		1
<b>GC Miscellaneous</b>							
		<b>SW-846 8015B</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10501	Ethanol	64-17-5	260	J 110	550		1
10501	Isopropanol	67-63-0	110	U 110	550		1
10501	Methanol	67-56-1	110	U 110	550		1
<b>GC Miscellaneous</b>							
		<b>SW-846 8015B modified</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
08283	Diethylene glycol	111-46-6	5.5	U 5.5	14		1
08283	Ethylene glycol	107-21-1	5.5	U 5.5	14		1
08283	Propylene glycol	57-55-6	5.5	U 5.5	14		1
<b>Terphenyls</b>							
		<b>SW-846 8015B</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
10318	m-Terphenyl	92-06-8	3.3	U 3.3	7.7		1

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**Sample Description:** SL-013-SA5C-SB-9.0-10.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-013-SA5C-SB-9.0-10.0

LLI Sample # SW 6162880  
 LLI Group # 1225035  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/09/2010 13:52

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 14420 Albemarle Point Place  
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 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3323 SDG#: DE033-23\*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Terphenyls</b>		<b>SW-846 8015B</b>	<b>mg/kg</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
10318	o-Terphenyl	84-15-1	3.3	U	3.3	7.7		1
10318	p-Terphenyl	92-94-4	3.3	U	3.3	7.7		1
<b>Metals</b>		<b>SW-846 6010B</b>	<b>mg/kg</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
01643	Aluminum	7429-90-5	10,000		5.25	20.9		1
07914	Boron	7440-42-8	2.48	J	0.929	5.22		1
01650	Calcium	7440-70-2	3,070		6.40	20.9		1
01654	Iron	7439-89-6	14,300		4.92	20.9		1
01656	Lithium	7439-93-2	13.1		0.23	2.1		1
01657	Magnesium	7439-95-4	2,950		2.65	10.4		1
06958	Manganese	7439-96-5	188		0.0815	0.522		1
10145	Phosphorus	7723-14-0	249		0.585	10.4		1
01662	Potassium	7440-09-7	1,940		18.8	52.2		1
01667	Sodium	7440-23-5	117		39.0	104		1
07968	Strontium	7440-24-6	13.9		0.0647	0.522		1
06969	Tin	7440-31-5	1.78	J	1.04	10.4		1
06970	Titanium	7440-32-6	1,000		0.809	2.13		2
10146	Zirconium	7440-67-7	0.977	J	0.877	5.22		1
		<b>SW-846 6020</b>	<b>mg/kg</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
06124	Antimony	7440-36-0	0.0658	U	0.0658	0.219		2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.								
06125	Arsenic	7440-38-2	6.13		0.0658	0.439		2
06126	Barium	7440-39-3	109		0.118	0.439		2
06127	Beryllium	7440-41-7	0.567		0.0175	0.110		2
06128	Cadmium	7440-43-9	0.120		0.0395	0.110		2
06131	Chromium	7440-47-3	18.6		0.132	0.439		2
06132	Cobalt	7440-48-4	6.05		0.0219	0.110		2
06133	Copper	7440-50-8	9.51		0.0724	0.439		2
06135	Lead	7439-92-1	6.65		0.0114	0.219		2
06138	Molybdenum	7439-98-7	0.429		0.0548	0.110		2
06139	Nickel	7440-02-0	10.9		0.110	0.439		2
06141	Selenium	7782-49-2	0.116	J	0.0439	0.439		2
06142	Silver	7440-22-4	0.0312	J	0.0132	0.110		2
06145	Thallium	7440-28-0	0.333		0.0329	0.110		2
06148	Vanadium	7440-62-2	39.2		0.0241	0.110		2
06149	Zinc	7440-66-6	61.7		0.614	3.29		2
		<b>SW-846 7471A</b>	<b>mg/kg</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
00159	Mercury	7439-97-6	0.0030	U	0.0030	0.106		1
<b>Wet Chemistry</b>		<b>EPA 300.0</b>	<b>mg/kg</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	3.6		0.88	1.1		1
07336	11a Anions by 300.0 - Nitrate	14797-55-8	1.2	J	0.88	1.6		1
		<b>SW-846 7199</b>	<b>mg/kg</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	

\*—This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-013-SA5C-SB-9.0-10.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-013-SA5C-SB-9.0-10.0

**LLI Sample #** SW 6162880  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/09/2010 13:52

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3323 SDG#: DE033-23\*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Wet Chemistry SW-846 7199</b>							
05892	3a Cr VI by EPA 7199	18540-29-9	0.22 U	0.22	mg/kg	mg/kg	1
<b>SW-846 9012B</b>							
05895	21a Cyanide by 9012B	57-12-5	0.19 U	0.19	mg/kg	mg/kg	1
<b>ASTM D1498</b>							
01821	Oxidation Reduction Potential	n.a.	448	10.0	mV	mV	1
The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.							
<b>SW-846 9045C modified</b>							
00394	22a pH by 9045C	n.a.	8.34	0.0100	Std. Units	Std. Units	1
<b>Wet Chemistry EPA 160.3 modified</b>							
11624	28a Moisture Content by 160.3	n.a.	8.8	0.50	%	%	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.							

### General Sample Comments

State of California Lab Certification No. 2501  
 The volatile analysis was performed on soil from SL-013-SA5C-SB-9.5.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06192	1a Volatile Organics EPA 8260B	SW-846 8260B	1	B103481AA	12/14/2010 19:24	Nicholas R Rossi	0.85
10326	14a 1,4-Dioxane by 8260B SIM	SW-846 8260B SIM	1	E103493AA	12/15/2010 23:11	Sara E Johnson	21.74
08390	GC/MS - HL Encore Prep	SW-846 5035	1	201034723287	12/10/2010 21:10	Christopher D Meeks	n.a.
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035	1	201034723287	12/13/2010 15:49	Christopher D Meeks	n.a.
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035	2	201034723287	12/13/2010 15:49	Christopher D Meeks	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035	1	201034723287	12/10/2010 21:10	Christopher D Meeks	n.a.
11622	19a NDMA by 1625C	EPA 1625C	1	10350SLF026	12/29/2010 13:38	Timothy J Trees	1

\*=This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-013-SA5C-SB-9.0-10.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-013-SA5C-SB-9.0-10.0

**LLI Sample #** SW 6162880  
**LLI Group #** 1225035  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/09/2010 13:52

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3323 SDG#: DE033-23\*

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10348SLG026	12/23/2010 05:20	Ryan P Byrne	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10349SLF026	12/21/2010 16:20	Mark A Clark	1
11630	NDMA Soil Microwave	SW-846 3546	1	10350SLF026	12/17/2010 01:00	Sherry L Morrow	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10349SLF026	12/16/2010 07:00	Joseph S Feister	1
00381	BNA Soil Sonication	SW-846 3550B	1	10348SLG026	12/15/2010 07:05	Joseph S Feister	1
05551	9a TPH by EPA 8015B Gas C5-C12	TPH GRO SW-846 8015B mod	1	10348A34A	12/15/2010 10:17	Marie D John	21.33
06130	GC - 5 g HL Encore Prep	SW-846 5035	1	201034723287	12/10/2010 21:11	Christopher D Meeks	n.a.
10132	20a Energetics by 8330A	SW-846 8330A	1	103510022A	12/21/2010 16:41	Michele D Hamilton	1
04173	17a Formaldehyde by 8315A	SW-846 8315A	1	103480008A	12/17/2010 20:06	Michele D Hamilton	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	103490013A	12/19/2010 15:07	Lindsey K Lafferty	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	103490013A	12/15/2010 21:05	Karen L Beyer	1
05876	Formaldehyde Solid Extraction	SW-846 8315A	1	103480008A	12/14/2010 15:00	Kelli M Barto	1
11137	Energetics Extraction	SW-846 8330	1	103510022A	12/19/2010 17:00	Wanda F Oswald	1
10199	9a TPH by EPA 8015B Oil/Diesel	SW-846 8015B modified	1	103490010A	12/21/2010 09:14	Heather E Williams	1
10501	25a Alcohols by 8015B	SW-846 8015B	1	103480003A	12/15/2010 17:08	Dustin A Underkoffler	1
08283	27a Glycols by 8015B	SW-846 8015B modified	1	103480019A	12/16/2010 16:41	Robert Brown	1
10318	26a Terphenyls by 8015B	SW-846 8015B	1	103500031A	12/17/2010 22:18	Heather E Williams	1
11238	EFH Extraction - Soils	SW-846 3550B	1	103490010A	12/15/2010 19:30	Sally L Appleyard	1
10303	Terphenyls soil prep	SW-846 3550B	1	103500031A	12/17/2010 07:00	Kerrie A Freeburn	1
11551	Direct Inj. Solids Glycol Ext.	SW-846 8015B	1	103480019A	12/15/2010 12:00	Dustin A Underkoffler	1
00380	Direct Injection Solids Ext	SW-846 8015B	1	103480003A	12/15/2010 12:00	Dustin A Underkoffler	1
01643	Aluminum	SW-846 6010B	1	103495708002	12/16/2010 18:10	Eric L Eby	1
07914	Boron	SW-846 6010B	1	103495708002	12/16/2010 06:12	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	103495708002	12/16/2010 06:12	Tara L Snyder	1
01654	Iron	SW-846 6010B	1	103495708002	12/16/2010 06:12	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	103495708002	12/16/2010 06:12	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	103495708002	12/16/2010 06:12	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	103495708002	12/16/2010 06:12	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	103495708002	12/16/2010 06:12	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	103495708002	12/16/2010 06:12	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	103495708002	12/16/2010 06:12	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	103495708002	12/16/2010 06:12	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	103495708002	12/16/2010 06:12	Tara L Snyder	1
06970	Titanium	SW-846 6010B	1	103505708003	12/20/2010 18:09	John P Hook	2
10146	Zirconium	SW-846 6010B	1	103495708002	12/16/2010 06:12	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	103491026002A	12/17/2010 16:23	Choon Y Tian	2

\*=This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description: SL-013-SA5C-SB-9.0-10.0 Soil**  
**SSFL Area IV Collocated Soil Sampling**  
**SL-013-SA5C-SB-9.0-10.0**

**LLI Sample # SW 6162880**  
**LLI Group # 1225035**  
**Account # 13013**

**Project Name: SSFL Area IV Collocated Soil Sampling**

Collected: 12/09/2010 13:52

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 15:50

E3323 SDG#: DE033-23\*

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
06125	Arsenic	SW-846 6020	1	103491026002A	12/17/2010	16:23	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103491026002D	12/17/2010	16:23	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103491026002A	12/17/2010	16:23	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103491026002A	12/17/2010	16:23	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103491026002A	12/17/2010	16:23	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103491026002A	12/17/2010	16:23	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103491026002A	12/17/2010	16:23	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103491026002A	12/17/2010	16:23	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103491026002C	12/21/2010	18:16	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103491026002A	12/17/2010	16:23	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103491026002B	12/17/2010	16:23	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103491026002A	12/17/2010	16:23	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103491026002A	12/17/2010	16:23	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103491026002A	12/17/2010	16:23	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	103491026002A	12/17/2010	16:23	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	103495711002	12/15/2010	20:13	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	103495708002	12/15/2010	10:35	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	103505708003	12/17/2010	19:17	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103491026002	12/15/2010	11:08	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	103495711002	12/15/2010	12:17	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10352352201B	12/20/2010	20:20	Ashley M Adams	1
07336	11a Anions by 300.0 - Nitrate	EPA 300.0	1	10352352201B	12/20/2010	20:20	Ashley M Adams	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	10356243201A	12/28/2010	23:40	Ashley M Adams	1
05895	21a Cyanide by 9012B	SW-846 9012B	1	10357102201A	12/23/2010	19:49	Joseph E McKenzie	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10352352201B	12/19/2010	16:30	Joseph E McKenzie	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	10357102201A	12/23/2010	15:10	Carolyn M Mastropietro	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10348182102A	12/14/2010	10:45	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10348039402A	12/14/2010	10:45	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10356243201A	12/22/2010	20:10	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	1	10364162401B	12/31/2010	05:52	William C Schwebel	1

\*—This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

## Quality Control Summary

 Client Name: CDM Federal Programs Corp.  
 Reported: 01/21/11 at 03:50 PM

Group Number: 1225035

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

## Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: B103481AA	Sample number(s): 6162855-6162858, 6162860-6162864, 6162875-6162880								
Acetone	6.7 U	6.7	8.0	ug/kg	172	170	32-209	2	30
Benzene	0.10 U	0.10	4.0	ug/kg	104	102	80-120	3	30
Bromobenzene	0.13 U	0.13	4.0	ug/kg	96	94	79-120	3	30
Bromochloromethane	0.33 U	0.33	4.0	ug/kg	101	100	79-124	2	30
Bromodichloromethane	0.08 U	0.08	4.0	ug/kg	98	97	78-120	0	30
Bromoform	0.40 U	0.40	4.0	ug/kg	95	94	70-120	1	30
Bromomethane	0.25 U	0.25	4.0	ug/kg	82	79	32-162	3	30
2-Butanone	1.2 U	1.2	8.0	ug/kg	126	125	46-153	1	30
n-Butylbenzene	0.12 U	0.12	4.0	ug/kg	99	94	72-120	4	30
sec-Butylbenzene	0.06 U	0.06	4.0	ug/kg	98	95	75-120	3	30
tert-Butylbenzene	0.16 U	0.16	4.0	ug/kg	95	92	75-120	3	30
Carbon Tetrachloride	0.14 U	0.14	4.0	ug/kg	103	99	69-122	4	30
Chlorobenzene	0.11 U	0.11	4.0	ug/kg	99	98	80-120	2	30
Chloroethane	0.13 U	0.13	4.0	ug/kg	87	85	37-154	3	30
2-Chloroethyl Vinyl Ether	0.30 U	0.30	4.0	ug/kg	96	95	43-146	1	30
Chloroform	0.12 U	0.12	4.0	ug/kg	103	101	80-120	3	30
Chloromethane	0.33 U	0.33	4.0	ug/kg	76	78	54-132	2	30
2-Chlorotoluene	0.14 U	0.14	4.0	ug/kg	97	95	78-120	2	30
4-Chlorotoluene	0.14 U	0.14	4.0	ug/kg	98	95	79-120	3	30
Chlorotrifluoroethene	0.50 U	0.50	5.0	ug/kg	100	96	22-131	4	30
1,2-Dibromo-3-chloropropane	0.70 U	0.70	4.0	ug/kg	90	88	58-120	2	30
Dibromochloromethane	0.20 U	0.20	4.0	ug/kg	96	95	77-120	1	30
1,2-Dibromoethane	0.17 U	0.17	4.0	ug/kg	95	96	80-120	1	30
Dibromomethane	0.24 U	0.24	4.0	ug/kg	100	100	80-120	1	30
1,2-Dichlorobenzene	0.09 U	0.09	4.0	ug/kg	98	96	79-120	2	30
1,3-Dichlorobenzene	0.12 U	0.12	4.0	ug/kg	96	94	78-120	2	30
1,4-Dichlorobenzene	0.16 U	0.16	4.0	ug/kg	97	94	79-120	3	30
Dichlorodifluoromethane	0.12 U	0.12	4.0	ug/kg	51	49	20-120	5	30
1,1-Dichloroethane	0.10 U	0.10	4.0	ug/kg	103	100	80-120	3	30
1,2-Dichloroethane	0.15 U	0.15	4.0	ug/kg	101	100	71-129	1	30
1,1-Dichloroethene	0.39 U	0.39	4.0	ug/kg	100	98	73-123	3	30
cis-1,2-Dichloroethene	0.19 U	0.19	4.0	ug/kg	104	101	80-120	2	30
trans-1,2-Dichloroethene	0.12 U	0.12	4.0	ug/kg	103	98	79-120	5	30
1,2-Dichloropropane	0.17 U	0.17	4.0	ug/kg	100	99	80-120	1	30
1,3-Dichloropropane	0.08 U	0.08	4.0	ug/kg	97	96	80-120	1	30
2,2-Dichloropropane	0.17 U	0.17	4.0	ug/kg	102	99	72-123	3	30
1,1-Dichloropropene	0.13 U	0.13	4.0	ug/kg	101	98	77-120	3	30
cis-1,3-Dichloropropene	0.16 U	0.16	4.0	ug/kg	93	93	80-120	0	30
trans-1,3-Dichloropropene	0.17 U	0.17	4.0	ug/kg	91	92	77-120	1	30
Ethylbenzene	0.06 U	0.06	4.0	ug/kg	100	97	80-120	3	30
Freon 113	0.11 U	0.11	4.0	ug/kg	92	87	61-126	5	30
Freon 133a	0.50 U	0.50	5.0	ug/kg	92	89	78-120	3	30
Hexachlorobutadiene	0.14 U	0.14	4.0	ug/kg	93	88	57-120	5	30
2-Hexanone	1.6 U	1.6	8.0	ug/kg	83	84	45-155	1	30
Isopropylbenzene	0.06 U	0.06	4.0	ug/kg	100	97	76-120	3	30
p-Isopropyltoluene	0.11 U	0.11	4.0	ug/kg	99	96	75-120	4	30

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

## Quality Control Summary

 Client Name: CDM Federal Programs Corp.  
 Reported: 01/21/11 at 03:50 PM

Group Number: 1225035

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Methyl Tertiary Butyl Ether	0.21 U	0.21	4.0	ug/kg	96	96	74-121	0	30
4-Methyl-2-pentanone	0.39 U	0.39	8.0	ug/kg	75	73	61-134	3	30
Methylene Chloride	1.0 J	0.24	4.0	ug/kg	98	98	76-124	1	30
n-Propylbenzene	0.07 U	0.07	4.0	ug/kg	101	97	77-120	4	30
Styrene	0.10 U	0.10	4.0	ug/kg	98	97	76-120	1	30
1,1,1,2-Tetrachloroethane	0.11 U	0.11	4.0	ug/kg	99	98	80-120	2	30
1,1,2,2-Tetrachloroethane	0.23 U	0.23	4.0	ug/kg	93	91	71-123	1	30
Tetrachloroethene	0.20 U	0.20	4.0	ug/kg	101	98	77-120	3	30
Toluene	0.11 J	0.08	4.0	ug/kg	99	97	80-120	3	30
1,2,3-Trichlorobenzene	0.14 U	0.14	4.0	ug/kg	95	92	64-120	3	30
1,2,4-Trichlorobenzene	0.18 U	0.18	4.0	ug/kg	94	91	68-120	3	30
1,1,1-Trichloroethane	0.20 U	0.20	4.0	ug/kg	90	86	71-125	5	30
1,1,2-Trichloroethane	0.27 U	0.27	4.0	ug/kg	97	96	80-120	1	30
Trichloroethene	0.15 U	0.15	4.0	ug/kg	101	99	80-120	2	30
Trichlorofluoromethane	0.29 U	0.29	4.0	ug/kg	82	78	58-133	5	30
1,2,3-Trichloropropane	0.33 U	0.33	4.0	ug/kg	94	93	71-123	1	30
1,2,4-Trimethylbenzene	0.40 U	0.40	4.0	ug/kg	99	95	79-120	4	30
1,3,5-Trimethylbenzene	0.10 U	0.10	4.0	ug/kg	99	96	78-120	3	30
Vinyl Chloride	0.20 U	0.20	4.0	ug/kg	79	76	53-120	4	30
m+p-Xylene	0.17 U	0.17	4.0	ug/kg	102	98	80-120	3	30
o-Xylene	0.17 U	0.17	4.0	ug/kg	97	95	80-120	2	30
Batch number: E103491AA Sample number(s): 6162859,6162869									
1,4-Dioxane	0.5 U	0.5	2.0	ug/l	100	107	60-132	6	30
Batch number: E103492AA Sample number(s): 6162855-6162858,6162860-6162864,6162875-6162879									
1,4-Dioxane	5.0 U	5.0	15	ug/kg	105	106	70-130	1	30
Batch number: E103493AA Sample number(s): 6162880									
1,4-Dioxane	5.0 U	5.0	15	ug/kg	108	112	70-130	4	30
Batch number: Y103462AA Sample number(s): 6162859,6162869									
Acetone	6 U	6.	20	ug/l	122	123	49-234	1	30
Benzene	0.5 U	0.5	5	ug/l	96	95	79-120	1	30
Bromobenzene	1 U	1.	5	ug/l	104	104	80-120	0	30
Bromochloromethane	1 U	1.	5	ug/l	98	95	80-120	3	30
Bromodichloromethane	1 U	1.	5	ug/l	91	92	80-120	1	30
Bromoform	1 U	1.	5	ug/l	96	98	61-120	2	30
Bromomethane	1 U	1.	5	ug/l	89	88	44-120	0	30
2-Butanone	3 U	3.	10	ug/l	95	96	66-151	1	30
n-Butylbenzene	1 U	1.	5	ug/l	100	99	74-120	2	30
sec-Butylbenzene	1 U	1.	5	ug/l	105	104	78-120	1	30
tert-Butylbenzene	1 U	1.	5	ug/l	98	98	80-120	0	30
Carbon Tetrachloride	1 U	1.	5	ug/l	98	98	75-123	0	30
Chlorobenzene	0.8 U	0.8	5	ug/l	97	97	80-120	1	30
Chloroethane	1 U	1.	5	ug/l	93	88	49-129	5	30
2-Chloroethyl Vinyl Ether	2 U	2.	10	ug/l	104	104	56-129	0	30
Chloroform	0.8 U	0.8	5	ug/l	98	97	77-122	1	30
Chloromethane	1 U	1.	5	ug/l	86	85	60-129	2	30
2-Chlorotoluene	1 U	1.	5	ug/l	104	104	80-120	0	30
4-Chlorotoluene	1 U	1.	5	ug/l	99	100	80-120	1	30
Chlorotrifluoroethene	2 U	2.	5	ug/l	93	97	38-136	3	30
1,2-Dibromo-3-chloropropane	2 U	2.	5	ug/l	112	112	66-120	0	30
Dibromochloromethane	1 U	1.	5	ug/l	98	98	80-120	0	30
1,2-Dibromoethane	1 U	1.	5	ug/l	100	102	80-120	2	30
Dibromomethane	1 U	1.	5	ug/l	95	96	80-120	0	30
1,2-Dichlorobenzene	1 U	1.	5	ug/l	97	98	80-120	1	30
1,3-Dichlorobenzene	1 U	1.	5	ug/l	102	101	80-120	1	30

\*- Outside of specification

\*\*-This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

## Quality Control Summary

 Client Name: CDM Federal Programs Corp.  
 Reported: 01/21/11 at 03:50 PM

Group Number: 1225035

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
1,4-Dichlorobenzene	1 U	1.	5	ug/l	99	99	80-120	0	30
Dichlorodifluoromethane	2 U	2.	5	ug/l	70	68	47-120	2	30
1,1-Dichloroethane	1 U	1.	5	ug/l	98	97	79-120	1	30
1,2-Dichloroethane	1 U	1.	5	ug/l	95	95	70-130	0	30
1,1-Dichloroethene	0.8 U	0.8	5	ug/l	100	97	74-123	3	30
cis-1,2-Dichloroethene	0.8 U	0.8	5	ug/l	99	96	80-120	3	30
trans-1,2-Dichloroethene	0.8 U	0.8	5	ug/l	101	99	80-120	2	30
1,2-Dichloropropane	1 U	1.	5	ug/l	92	91	78-120	1	30
1,3-Dichloropropane	1 U	1.	5	ug/l	98	98	80-120	0	30
2,2-Dichloropropane	1 U	1.	5	ug/l	91	90	77-124	1	30
1,1-Dichloropropene	1 U	1.	5	ug/l	97	95	80-120	2	30
cis-1,3-Dichloropropene	1 U	1.	5	ug/l	89	89	80-120	0	30
trans-1,3-Dichloropropene	1 U	1.	5	ug/l	93	94	79-120	0	30
Ethylbenzene	0.8 U	0.8	5	ug/l	98	98	79-120	1	30
Freon 113	2 U	2.	10	ug/l	99	95	69-128	4	30
Freon 133a	2 U	2.	5	ug/l	98	102	77-120	5	30
Hexachlorobutadiene	2 U	2.	5	ug/l	91	92	58-120	1	30
2-Hexanone	3 U	3.	10	ug/l	104	106	65-136	1	30
Isopropylbenzene	1 U	1.	5	ug/l	97	97	77-120	0	30
p-Isopropyltoluene	1 U	1.	5	ug/l	103	103	80-120	1	30
Methyl Tertiary Butyl Ether	0.5 U	0.5	5	ug/l	95	96	76-120	2	30
4-Methyl-2-pentanone	3 U	3.	10	ug/l	97	96	70-121	1	30
Methylene Chloride	2 U	2.	5	ug/l	99	99	80-120	0	30
n-Propylbenzene	1 U	1.	5	ug/l	109	108	80-120	1	30
Styrene	1 U	1.	5	ug/l	96	97	80-120	0	30
1,1,1,2-Tetrachloroethane	1 U	1.	5	ug/l	101	102	80-120	1	30
1,1,2,2-Tetrachloroethane	1 U	1.	5	ug/l	108	107	71-120	1	30
Tetrachloroethene	0.8 U	0.8	5	ug/l	98	100	80-121	2	30
Toluene	0.7 U	0.7	5	ug/l	98	99	79-120	1	30
1,2,3-Trichlorobenzene	1 U	1.	5	ug/l	97	99	65-120	2	30
1,2,4-Trichlorobenzene	1 U	1.	5	ug/l	97	98	67-120	1	30
1,1,1-Trichloroethane	0.8 U	0.8	5	ug/l	86	86	75-127	0	30
1,1,2-Trichloroethane	0.8 U	0.8	5	ug/l	99	100	80-120	1	30
Trichloroethene	1 U	1.	5	ug/l	92	93	80-120	1	30
Trichlorofluoromethane	2 U	2.	5	ug/l	83	80	64-129	3	30
1,2,3-Trichloropropane	1 U	1.	5	ug/l	107	111	80-120	3	30
1,2,4-Trimethylbenzene	1 U	1.	5	ug/l	106	106	74-120	0	30
1,3,5-Trimethylbenzene	1 U	1.	5	ug/l	103	103	75-120	0	30
Vinyl Chloride	1 U	1.	5	ug/l	83	82	65-125	1	30
m+p-Xylene	0.8 U	0.8	5	ug/l	95	94	80-120	1	30
o-Xylene	0.8 U	0.8	5	ug/l	95	96	80-120	1	30

 Batch number: 10347WAA026  
 N-Nitrosodimethylamine

 Sample number(s): 6162870  
 0.696 J 0.500 1.00

ng/l 97 60\* 70-130 47\* 30

Batch number: 10347WAE026

Sample number(s): 6162868

Aniline	1 U	1.	5	ug/l	55	59	49-101	7	30
Benzidine	20 U	20.	60	ug/l	50	58	20-109	14	30
Benzoic acid	6 U	6.	15	ug/l	29	19	10-69	39*	30
Benzyl alcohol	5 U	5.	15	ug/l	69	69	66-97	0	30
4-Bromophenyl-phenylether	1 U	1.	5	ug/l	83	89	82-117	7	30
Carbazole	1 U	1.	5	ug/l	76*	79*	81-114	4	30
4-Chloro-3-methylphenol	1 U	1.	5	ug/l	86	88	70-123	3	30
4-Chloroaniline	1 U	1.	5	ug/l	46	57	42-124	22	30
bis(2-Chloroethoxy)methane	1 U	1.	5	ug/l	80	84	74-124	5	30
bis(2-Chloroethyl)ether	1 U	1.	5	ug/l	83	82	77-108	2	30
bis(2-Chloroisopropyl)ether	1 U	1.	5	ug/l	78	76	62-127	3	30
2-Chloronaphthalene	2 U	2.	5	ug/l	62	65	54-132	5	30

\*- Outside of specification

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- (2) The unspiked result was more than four times the spike added.

## Quality Control Summary

 Client Name: CDM Federal Programs Corp.  
 Reported: 01/21/11 at 03:50 PM

Group Number: 1225035

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
2-Chlorophenol	1 U	1.	5	ug/l	81	79	77-108	2	30
4-Chlorophenyl-phenylether	2 U	2.	5	ug/l	84	86	82-111	3	30
Dibenzofuran	1 U	1.	5	ug/l	79*	82*	83-108	4	30
1,2-Dichlorobenzene	1 U	1.	5	ug/l	72	72	67-108	1	30
1,3-Dichlorobenzene	1 U	1.	5	ug/l	73	70	63-110	4	30
1,4-Dichlorobenzene	1 U	1.	5	ug/l	72	71	65-113	2	30
3,3'-Dichlorobenzidine	2 U	2.	5	ug/l	44*	54	49-111	21	30
2,4-Dichlorophenol	1 U	1.	5	ug/l	85	89	80-109	4	30
2,4-Dimethylphenol	3 U	3.	10	ug/l	81	86	72-110	6	30
3,5-Dimethylphenol	3 U	3.	10	ug/l	101	110	70-130	9	30
4,6-Dinitro-2-methylphenol	5 U	5.	15	ug/l	80	81	78-119	0	30
2,4-Dinitrophenol	10 U	10.	30	ug/l	70	65	64-120	8	30
2,4-Dinitrotoluene	1 U	1.	5	ug/l	81	84	81-115	3	30
2,6-Dinitrotoluene	1 U	1.	5	ug/l	83*	84*	85-115	1	30
1,2-Diphenylhydrazine	1 U	1.	5	ug/l	81	85	78-116	5	30
Hexachlorobenzene	1 U	1.	5	ug/l	83	84	81-118	1	30
Hexachlorobutadiene	1 U	1.	5	ug/l	77	84	57-124	9	30
Hexachlorocyclopentadiene	5 U	5.	15	ug/l	50	54	10-118	8	30
Hexachloroethane	1 U	1.	5	ug/l	72	73	52-113	1	30
Isophorone	1 U	1.	5	ug/l	81	86	74-117	5	30
2-Methylphenol	1 U	1.	5	ug/l	72	74	64-101	3	30
4-Methylphenol	2 U	2.	5	ug/l	67	72	61-103	7	30
2-Nitroaniline	1 U	1.	5	ug/l	76*	80*	83-116	6	30
3-Nitroaniline	1 U	1.	5	ug/l	75	76	74-113	1	30
4-Nitroaniline	1 U	1.	5	ug/l	58*	60	59-100	3	30
Nitrobenzene	1 U	1.	5	ug/l	78	83	75-109	7	30
2-Nitrophenol	1 U	1.	5	ug/l	77*	81*	86-120	5	30
4-Nitrophenol	10 U	10.	30	ug/l	33	39	16-78	17	30
N-Nitroso-di-n-propylamine	1 U	1.	5	ug/l	85	84	69-110	2	30
N-Nitrosodiphenylamine	2 U	2.	5	ug/l	81	84	67-136	3	30
Pentachlorophenol	3 U	3.	15	ug/l	63	66	53-110	4	30
Phenol	1 U	1.	5	ug/l	30	34	29-67	15	30
1,2,4-Trichlorobenzene	1 U	1.	5	ug/l	76	80	71-112	5	30
2,4,5-Trichlorophenol	1 U	1.	5	ug/l	82	81	79-107	1	30
2,4,6-Trichlorophenol	1 U	1.	5	ug/l	88	87	81-113	1	30

Batch number: 10347WAI026

Sample number(s): 6162868

Acenaphthene	0.010 U	0.010	0.050	ug/l	98	101	74-109	3	30
Acenaphthylene	0.010 U	0.010	0.050	ug/l	102	103	70-110	0	30
Anthracene	0.010 U	0.010	0.050	ug/l	100	103	66-111	2	30
Benzo(a)anthracene	0.010 U	0.010	0.050	ug/l	99	103	72-114	4	30
Benzo(a)pyrene	0.010 U	0.010	0.050	ug/l	92	95	64-115	3	30
Benzo(b)fluoranthene	0.010 U	0.010	0.050	ug/l	101	102	69-123	1	30
Benzo(g,h,i)perylene	0.010 U	0.010	0.050	ug/l	93	94	68-125	1	30
Benzo(k)fluoranthene	0.010 U	0.010	0.050	ug/l	93	95	72-122	2	30
Butylbenzylphthalate	0.074 J	0.050	1.0	ug/l	101	102	70-130	1	30
Di-n-butylphthalate	0.16 J	0.050	1.0	ug/l	100	101	70-130	1	30
Chrysene	0.010 U	0.010	0.050	ug/l	96	97	76-116	2	30
Dibenz(a,h)anthracene	0.010 U	0.010	0.050	ug/l	93	94	71-125	1	30
Diethylphthalate	0.050 U	0.050	1.0	ug/l	107	109	70-130	2	30
Dimethylphthalate	0.050 U	0.050	1.0	ug/l	105	105	70-130	0	30
Bis(2-Ethylhexyl)phthalate	0.086 J	0.050	1.0	ug/l	103	105	70-130	2	30
Fluoranthene	0.010 U	0.010	0.050	ug/l	102	102	75-116	1	30
Fluorene	0.010 U	0.010	0.050	ug/l	105	103	75-114	2	30
Indeno(1,2,3-cd)pyrene	0.010 U	0.010	0.050	ug/l	93	95	69-124	2	30
1-Methylnaphthalene	0.010 U	0.010	0.050	ug/l	98	99	71-117	1	30
2-Methylnaphthalene	0.010 U	0.010	0.050	ug/l	88	88	75-115	0	30
Naphthalene	0.010 U	0.010	0.050	ug/l	93	94	72-109	1	30

\*- Outside of specification

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- (2) The unspiked result was more than four times the spike added.

## Quality Control Summary

 Client Name: CDM Federal Programs Corp.  
 Reported: 01/21/11 at 03:50 PM

Group Number: 1225035

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
N-Nitrosodimethylamine	0.010 U	0.010	0.050	ug/l	67*	68*	70-130	3	30
Di-n-octylphthalate	0.076 J	0.050	1.0	ug/l	92	95	70-130	3	30
Phenanthrene	0.010 U	0.010	0.050	ug/l	97	97	76-111	1	30
Pyrene	0.010 U	0.010	0.050	ug/l	98	101	69-118	2	30
Batch number: 10348SLG026 Sample number(s): 6162855-6162858, 6162860-6162866, 6162871-6162880									
Acenaphthene	17 U	17.	170	ug/kg	92		76-111		
Acenaphthylene	17 U	17.	170	ug/kg	94		75-122		
Aniline	170 U	170.	500	ug/kg	77		10-107		
Anthracene	17 U	17.	170	ug/kg	96		76-112		
Benzidine	1,200 U	1,200.	3,300	ug/kg	79		15-121		
Benzo(a)anthracene	17 U	17.	170	ug/kg	97		73-112		
Benzo(a)pyrene	17 U	17.	170	ug/kg	107		69-122		
Benzo(b)fluoranthene	17 U	17.	170	ug/kg	112		61-127		
Benzo(g,h,i)perylene	17 U	17.	170	ug/kg	101		65-122		
Benzo(k)fluoranthene	17 U	17.	170	ug/kg	107		67-125		
Benzoic acid	170 U	170.	500	ug/kg	90		10-154		
Benzyl alcohol	170 U	170.	500	ug/kg	90		68-111		
4-Bromophenyl-phenylether	17 U	17.	170	ug/kg	97		79-117		
Butylbenzylphthalate	17 U	17.	170	ug/kg	102		75-115		
Di-n-butylphthalate	17 U	17.	170	ug/kg	99		79-112		
Carbazole	17 U	17.	170	ug/kg	92		77-113		
4-Chloro-3-methylphenol	33 U	33.	170	ug/kg	90		74-119		
4-Chloroaniline	67 U	67.	170	ug/kg	83		10-110		
bis(2-Chloroethoxy)methane	17 U	17.	170	ug/kg	89		70-118		
bis(2-Chloroethyl)ether	17 U	17.	170	ug/kg	86		70-104		
bis(2-Chloroisopropyl)ether	17 U	17.	170	ug/kg	58*		68-131		
2-Chloronaphthalene	17 U	17.	170	ug/kg	73		67-127		
2-Chlorophenol	17 U	17.	170	ug/kg	95		72-112		
4-Chlorophenyl-phenylether	33 U	33.	170	ug/kg	97		79-110		
Chrysene	17 U	17.	170	ug/kg	98		76-113		
Dibenz(a,h)anthracene	17 U	17.	170	ug/kg	103		70-128		
Dibenzofuran	17 U	17.	170	ug/kg	95		79-108		
1,2-Dichlorobenzene	17 U	17.	170	ug/kg	85		79-102		
1,3-Dichlorobenzene	17 U	17.	170	ug/kg	83		70-98		
1,4-Dichlorobenzene	17 U	17.	170	ug/kg	85		74-106		
3,3'-Dichlorobenzidine	100 U	100.	330	ug/kg	94		38-105		
2,4-Dichlorophenol	17 U	17.	170	ug/kg	92		75-111		
Diethylphthalate	17 U	17.	170	ug/kg	94		76-111		
2,4-Dimethylphenol	33 U	33.	170	ug/kg	92		72-111		
3,5-Dimethylphenol	33 U	33.	170	ug/kg	110		70-130		
Dimethylphthalate	17 U	17.	170	ug/kg	96		77-109		
4,6-Dinitro-2-methylphenol	170 U	170.	500	ug/kg	100		53-110		
2,4-Dinitrophenol	670 U	670.	2,000	ug/kg	96		37-120		
2,4-Dinitrotoluene	33 U	33.	170	ug/kg	95		73-115		
2,6-Dinitrotoluene	17 U	17.	170	ug/kg	96		79-115		
1,2-Diphenylhydrazine	17 U	17.	170	ug/kg	90		77-111		
bis(2-Ethylhexyl)phthalate	17 U	17.	330	ug/kg	104		75-117		
Fluoranthene	17 U	17.	170	ug/kg	95		78-116		
Fluorene	17 U	17.	170	ug/kg	94		75-116		
Hexachlorobenzene	17 U	17.	170	ug/kg	99		78-116		

\*- Outside of specification

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## Quality Control Summary

 Client Name: CDM Federal Programs Corp.  
 Reported: 01/21/11 at 03:50 PM

Group Number: 1225035

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Hexachlorobutadiene	67 U	67.	170	ug/kg	85		70-112		
Hexachlorocyclopentadiene	170 U	170.	500	ug/kg	92		46-115		
Hexachloroethane	17 U	17.	170	ug/kg	80		68-105		
Indeno(1,2,3-cd)pyrene	17 U	17.	170	ug/kg	101		64-119		
Isophorone	17 U	17.	170	ug/kg	82		69-110		
1-Methylnaphthalene	17 U	17.	170	ug/kg	93		74-105		
2-Methylnaphthalene	17 U	17.	170	ug/kg	85		76-105		
2-Methylphenol	33 U	33.	170	ug/kg	89		66-110		
4-Methylphenol	33 U	33.	170	ug/kg	83		66-117		
Naphthalene	17 U	17.	170	ug/kg	88		73-106		
2-Nitroaniline	17 U	17.	170	ug/kg	97		78-116		
3-Nitroaniline	33 U	33.	170	ug/kg	92		62-109		
4-Nitroaniline	67 U	67.	170	ug/kg	74		49-98		
Nitrobenzene	17 U	17.	170	ug/kg	82		71-104		
2-Nitrophenol	17 U	17.	170	ug/kg	94		81-114		
4-Nitrophenol	170 U	170.	500	ug/kg	68		56-118		
N-Nitroso-di-n-propylamine	17 U	17.	170	ug/kg	74		63-107		
N-Nitrosodimethylamine	33 U	33.	170	ug/kg	80		60-106		
N-Nitrosodiphenylamine	17 U	17.	170	ug/kg	100		67-141		
Di-n-octylphthalate	17 U	17.	170	ug/kg	121		68-130		
Pentachlorophenol	170 U	170.	500	ug/kg	87		35-106		
Phenanthrene	17 U	17.	170	ug/kg	93		77-113		
Phenol	17 U	17.	170	ug/kg	79		58-112		
Pyrene	17 U	17.	170	ug/kg	97		75-115		
1,2,4-Trichlorobenzene	17 U	17.	170	ug/kg	90		73-108		
2,4,5-Trichlorophenol	33 U	33.	170	ug/kg	96		76-107		
2,4,6-Trichlorophenol	33 U	33.	170	ug/kg	98		78-111		
Batch number: 10349SLF026	Sample number(s): 6162855-6162858,6162860-6162866,6162871-6162880								
Acenaphthene	0.67 U	0.67	1.7	ug/kg	96		63-120		
Acenaphthylene	0.33 U	0.33	1.7	ug/kg	101		60-120		
Anthracene	0.33 U	0.33	1.7	ug/kg	101		55-120		
Benzo(a)anthracene	0.67 U	0.67	1.7	ug/kg	101		74-120		
Benzo(a)pyrene	0.67 U	0.67	1.7	ug/kg	95		58-129		
Benzo(b)fluoranthene	0.67 U	0.67	1.7	ug/kg	112		63-143		
Benzo(g,h,i)perylene	0.67 U	0.67	1.7	ug/kg	93		44-138		
Benzo(k)fluoranthene	0.67 U	0.67	1.7	ug/kg	88		66-137		
Butylbenzylphthalate	6.0 U	6.0	18	ug/kg	106		65-131		
Di-n-butylphthalate	6.0 U	6.0	18	ug/kg	110		84-132		
Chrysene	0.33 U	0.33	1.7	ug/kg	97		79-120		
Dibenz(a,h)anthracene	0.67 U	0.67	1.7	ug/kg	90		62-142		
Diethylphthalate	6.0 U	6.0	18	ug/kg	113		68-125		
Dimethylphthalate	6.0 U	6.0	18	ug/kg	107		70-130		
Bis(2-Ethylhexyl)phthalate	6.5 J	6.0	18	ug/kg	115		67-143		
Fluoranthene	0.67 U	0.67	1.7	ug/kg	106		78-120		
Fluorene	0.67 U	0.67	1.7	ug/kg	104		71-120		
Indeno(1,2,3-cd)pyrene	0.67 U	0.67	1.7	ug/kg	90		62-141		
1-Methylnaphthalene	0.67 U	0.67	1.7	ug/kg	97		72-120		
2-Methylnaphthalene	0.67 U	0.67	1.7	ug/kg	87		62-120		
Naphthalene	0.67 U	0.67	1.7	ug/kg	91		67-120		
N-Nitrosodimethylamine	0.67 U	0.67	1.7	ug/kg	102		39-148		
Di-n-octylphthalate	6.0 U	6.0	18	ug/kg	110		55-176		
Phenanthrene	0.67 U	0.67	1.7	ug/kg	96		75-120		
Pyrene	0.67 U	0.67	1.7	ug/kg	94		56-121		

\*- Outside of specification

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- (2) The unspiked result was more than four times the spike added.

## Quality Control Summary

 Client Name: CDM Federal Programs Corp.  
 Reported: 01/21/11 at 03:50 PM

Group Number: 1225035

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 10350SLF026 N-Nitrosodimethylamine	16.7	U 16.7	33.3	ng/kg	95		70-130		
Batch number: 10340B34B 9a TPH by EPA 8015B Gas C5-C12	0.2	U 0.2	1.0	mg/kg	72	78	67-119	8	30
Batch number: 10348A34A 9a TPH by EPA 8015B Gas C5-C12	0.2	U 0.2	1.0	mg/kg	75	69	67-119	8	30
Batch number: 10350A20A TPH-GRO S.CA water C5-C12	20	U 20.	50	ug/l	100	100	75-135	0	30
Batch number: 10351B53B TPH-GRO S.CA water C5-C12	20	U 20.	50	ug/l	86	86	75-135	0	30
Batch number: 10355B20A TPH-GRO S.CA water C5-C12	20	U 20.	50	ug/l	109	109	75-135	0	30
Batch number: 103480011A 4-Amino-2,6-Dinitrotoluene	0.30	U 0.30	0.60	ug/l	98	88	80-120	11	30
2-Amino-4,6-Dinitrotoluene	0.20	U 0.20	0.60	ug/l	94	84	80-120	11	30
2,6-Diamino-4-nitrotoluene	0.20	U 0.20	0.60	ug/l	70*	87	75-125	21	30
2,4-Diamino-6-nitrotoluene	0.20	U 0.20	0.60	ug/l	70*	87	75-125	21	30
1,3-Dinitrobenzene	0.20	U 0.20	0.60	ug/l	98	92	72-117	6	30
2,4-Dinitrotoluene	0.20	U 0.20	0.60	ug/l	94	87	80-120	8	30
2,6-Dinitrotoluene	0.20	U 0.20	0.60	ug/l	110	97	80-120	13	30
HMX	0.65	U 0.65	2.0	ug/l	95	90	65-125	5	30
Nitrobenzene	0.20	U 0.20	0.60	ug/l	92	85	75-121	8	30
Nitroglycerin	5.2	U 5.2	15	ug/l	92	88	80-120	5	30
2-Nitrotoluene	0.20	U 0.20	0.60	ug/l	95	86	74-120	10	30
3-Nitrotoluene	0.40	U 0.40	1.2	ug/l	95	86	69-107	10	30
4-Nitrotoluene	0.60	U 0.60	1.2	ug/l	95	87	80-120	9	30
PETN	6.0	U 6.0	18	ug/l	104	100	80-120	4	30
RDX	0.20	U 0.20	0.60	ug/l	95	90	70-125	5	30
Tetryl	0.40	U 0.40	0.60	ug/l	130	120	33-147	8	30
1,3,5-Trinitrobenzene	0.20	U 0.20	0.60	ug/l	110	100	53-129	10	30
2,4,6-Trinitrotoluene	0.20	U 0.20	0.60	ug/l	100	94	76-109	6	30
Batch number: 103510022A 4-Amino-2,6-Dinitrotoluene	75	U 75.	150	ug/kg	115		80-120		
2-Amino-4,6-Dinitrotoluene	50	U 50.	150	ug/kg	115		80-120		
2,6-Diamino-4-nitrotoluene	100	U 100.	300	ug/kg	96	96	54-134	1	30
2,4-Diamino-6-nitrotoluene	100	U 100.	300	ug/kg	96	95	54-134	1	30
1,3-Dinitrobenzene	50	U 50.	150	ug/kg	113		51-171		
2,4-Dinitrotoluene	50	U 50.	150	ug/kg	110		72-135		
2,6-Dinitrotoluene	50	U 50.	150	ug/kg	115		80-120		
HMX	130	U 130.	380	ug/kg	102		74-130		
Nitrobenzene	50	U 50.	150	ug/kg	113		80-120		
Nitroglycerin	1,000	U 1,000.	3,000	ug/kg	99		80-120		
2-Nitrotoluene	100	U 100.	150	ug/kg	114		78-128		
3-Nitrotoluene	130	U 130.	150	ug/kg	115		73-127		
4-Nitrotoluene	100	U 100.	150	ug/kg	114		80-120		

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## Quality Control Summary

 Client Name: CDM Federal Programs Corp.  
 Reported: 01/21/11 at 03:50 PM

Group Number: 1225035

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCS %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
PETN	U 1,000	1,000.	3,000	ug/kg	114		80-120		
RDX	63	U 63.	150	ug/kg	114		75-131		
Tetryl	77	U 77.	150	ug/kg	142		70-168		
1,3,5-Trinitrobenzene	50	U 50.	150	ug/kg	130		77-137		
2,4,6-Trinitrotoluene	50	U 50.	150	ug/kg	116		80-120		
Batch number: 103440024A	Sample number(s): 6162870								
17b Formaldehyde by 8315A	10	U 10.	50	ug/l	98	101	69-130	1	30
Batch number: 103480008A	Sample number(s): 6162855-6162858, 6162860-6162866, 6162875-6162880								
17a Formaldehyde by 8315A	600	U 600.	1,500	ug/kg	99		80-126		
Batch number: 103480009A	Sample number(s): 6162868								
2,4-D	0.16	U 0.16	0.50	ug/l	108	108	45-128	0	30
Dalapon	0.25	U 0.25	1.3	ug/l	78	75	40-100	4	30
2,4-DB	0.30	U 0.30	1.0	ug/l	80	84	41-138	5	30
Dicamba	0.080	U 0.080	0.30	ug/l	100	100	51-144	0	30
Dinoseb	0.10	U 0.10	0.50	ug/l	40	60	23-93	42*	30
2,4-DP (Dichlorprop)	0.16	U 0.16	0.50	ug/l	112	112	72-145	0	30
MCPA	300	U 300.	1,000	ug/l	90	88	69-129	2	30
MCPA	U								
MCPP	50	U 50.	200	ug/l	96	100	66-132	4	30
2,4,5-T	0.015	U 0.015	0.050	ug/l	112	112	53-141	0	30
2,4,5-TP	0.010	U 0.010	0.050	ug/l	100	100	56-135	0	30
Batch number: 103490003A	Sample number(s): 6162870								
2,4-D	0.16	U 0.16	0.50	ug/l	112	108	45-128	4	30
Dalapon	0.25	U 0.25	1.3	ug/l	92	97	40-100	5	30
2,4-DB	0.30	U 0.30	1.0	ug/l	100	100	41-138	0	30
Dicamba	0.080	U 0.080	0.30	ug/l	108	112	51-144	4	30
Dinoseb	0.10	U 0.10	0.50	ug/l	53	42	23-93	24	30
2,4-DP (Dichlorprop)	0.16	U 0.16	0.50	ug/l	116	116	72-145	0	30
MCPA	300	U 300.	1,000	ug/l	92	72	69-129	24	30
MCPA	U								
MCPP	50	U 50.	200	ug/l	96	92	66-132	4	30
2,4,5-T	0.015	U 0.015	0.050	ug/l	104	108	53-141	4	30
2,4,5-TP	0.010	U 0.010	0.050	ug/l	100	96	56-135	4	30
Batch number: 103490014A	Sample number(s): 6162864-6162866, 6162871-6162874								
2,4-D	1.2	U 1.2	3.6	ug/kg	102		40-140		
Dalapon	4.4	U 4.4	9.0	ug/kg	75		24-89		
2,4-DB	0.62	U 0.62	1.7	ug/kg	101		34-138		
Dicamba	0.40	U 0.40	1.2	ug/kg	92		20-164		
Dinoseb	0.80	U 0.80	2.4	ug/kg	7*		10-36		
2,4-DP (Dichlorprop)	0.80	U 0.80	1.7	ug/kg	126		60-141		
MCPA	76	U 76.	250	ug/kg	92		34-113		
MCPP (Mecoprop)	75	U 75.	250	ug/kg	114		29-154		
2,4,5-T	0.082	U 0.082	0.17	ug/kg	59		33-145		
2,4,5-TP	0.075	U 0.075	0.17	ug/kg	86		48-138		
Batch number: 103490017A	Sample number(s): 6162858, 6162860-6162866								
6a Perchlorate EPA 6850	2.1	U 2.1	5.0	ug/kg	98		85-115		
Batch number: 103470015A	Sample number(s): 6162868								
Aroclor 5432	0.10	U 0.10	0.50	ug/l					

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## Quality Control Summary

 Client Name: CDM Federal Programs Corp.  
 Reported: 01/21/11 at 03:50 PM

Group Number: 1225035

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Aroclor 5442	0.10 U	0.10	0.50	ug/l	68*	60*	75-125	13	30
Aroclor 5460	0.10 U	0.10	0.50	ug/l					
PCB-1016	0.10 U	0.10	0.50	ug/l	106	104	68-119	2	30
PCB-1221	0.10 U	0.10	0.50	ug/l					
PCB-1232	0.20 U	0.20	0.50	ug/l					
PCB-1242	0.10 U	0.10	0.50	ug/l					
PCB-1248	0.10 U	0.10	0.50	ug/l					
PCB-1254	0.10 U	0.10	0.50	ug/l					
PCB-1260	0.10 U	0.10	0.50	ug/l	114	106	68-121	7	30
PCB-1262	0.20 U	0.20	0.50	ug/l					
PCB-1268	0.16 U	0.16	0.50	ug/l					

Batch number: 103470016A

Sample number(s): 6162868

Aldrin	0.0020 U	0.0020	0.010	ug/l	111	101	54-159	10	30
Alpha BHC	0.0030 U	0.0030	0.010	ug/l	112	112	59-146	0	30
Beta BHC	0.0029 U	0.0029	0.010	ug/l	103	101	73-147	2	30
Gamma BHC - Lindane	0.0020 U	0.0020	0.010	ug/l	111	101	68-128	10	30
Chlordane	0.12 U	0.12	0.50	ug/l					
p,p-DDD	0.0050 U	0.0050	0.020	ug/l	105	100	71-139	5	30
p,p-DDE	0.0050 U	0.0050	0.020	ug/l	111	105	66-130	5	30
p,p-DDT	0.0050 U	0.0050	0.020	ug/l	90	85	53-126	6	30
Delta BHC	0.0029 U	0.0029	0.010	ug/l	113	113	76-148	0	30
Dieldrin	0.0053 U	0.0053	0.020	ug/l	110	105	76-132	5	30
Endosulfan I	0.0043 U	0.0043	0.010	ug/l	97	94	68-128	3	30
Endosulfan II	0.015 U	0.015	0.020	ug/l	105	100	59-144	5	30
Endosulfan Sulfate	0.0058 U	0.0058	0.020	ug/l	110	100	71-142	10	30
Endrin	0.0081 U	0.0081	0.020	ug/l	70	70	52-132	0	30
Endrin Aldehyde	0.020 U	0.020	0.10	ug/l	120	115	68-139	4	20
Endrin Ketone	0.0050 U	0.0050	0.020	ug/l	125	115	69-146	8	30
Heptachlor	0.0026 U	0.0026	0.010	ug/l	102	100	57-126	2	30
Heptachlor Epoxide	0.0023 U	0.0023	0.010	ug/l	112	102	73-156	10	30
Methoxychlor	0.030 U	0.030	0.10	ug/l	91	87	52-133	4	30
Mirex	0.085 U	0.085	0.25	ug/l					
Toxaphene	1.0 U	1.0	3.0	ug/l					

Batch number: 103490013A

Sample number(s): 6162855-6162858, 6162860-6162863, 6162865-6162866, 6162871-6162875, 6162877-6162880

Aroclor 5432	1.0 U	1.0	3.3	ug/kg					
Aroclor 5442	1.0 U	1.0	3.3	ug/kg	50*	59*	75-125	17	30
Aroclor 5460	1.0 U	1.0	3.3	ug/kg					
PCB-1016	0.33 U	0.33	1.7	ug/kg	79		72-120		
PCB-1221	0.50 U	0.50	1.7	ug/kg					
PCB-1232	0.52 U	0.52	1.7	ug/kg					
PCB-1242	0.50 U	0.50	1.7	ug/kg					
PCB-1248	0.33 U	0.33	1.7	ug/kg					
PCB-1254	0.33 U	0.33	1.7	ug/kg					
PCB-1260	0.33 U	0.33	1.7	ug/kg	70		65-137		
PCB-1262	0.33 U	0.33	1.7	ug/kg					
PCB-1268	0.33 U	0.33	1.7	ug/kg					

Batch number: 103500011A

Sample number(s): 6162864-6162866, 6162871-6162874

Aldrin	0.066 U	0.066	0.17	ug/kg	94		44-135		
Alpha BHC	0.034 U	0.034	0.17	ug/kg	112		38-130		
Beta BHC	0.060 U	0.060	0.17	ug/kg	94		56-134		
Gamma BHC - Lindane	0.034 U	0.034	0.17	ug/kg	118		46-127		
Chlordane	0.80 U	0.80	3.4	ug/kg					
p,p-DDD	0.066 U	0.066	0.34	ug/kg	131		60-137		
p,p-DDE	0.066 U	0.066	0.34	ug/kg	100		59-141		

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## Quality Control Summary

 Client Name: CDM Federal Programs Corp.  
 Reported: 01/21/11 at 03:50 PM

Group Number: 1225035

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
p,p-DDT	0.066 U	0.066	0.34	ug/kg	134*		54-130		
Delta BHC	0.036 U	0.036	0.17	ug/kg	97		55-144		
Dieldrin	0.066 U	0.066	0.34	ug/kg	99		65-129		
Endosulfan I	0.044 U	0.044	0.17	ug/kg	112		45-123		
Endosulfan II	0.066 U	0.066	0.34	ug/kg	95		63-127		
Endosulfan Sulfate	0.066 U	0.066	0.34	ug/kg	113		72-138		
Endrin	0.066 U	0.066	0.34	ug/kg	121		62-129		
Endrin Aldehyde	0.066 U	0.066	0.34	ug/kg	98		55-132		
Endrin Ketone	0.066 U	0.066	0.34	ug/kg	116		69-139		
Heptachlor	0.060 U	0.060	0.17	ug/kg	106		43-124		
Heptachlor Epoxide	0.034 U	0.034	0.17	ug/kg	103		65-131		
Methoxychlor	0.34 U	0.34	1.7	ug/kg	141*		59-125		
Mirex	0.066 U	0.066	0.34	ug/kg					
Toxaphene	2.2 U	2.2	6.6	ug/kg					

Batch number: 103540019A	Sample number(s): 6162864,6162876								
Aroclor 5432	1.0 U	1.0	3.3	ug/kg					
Aroclor 5442	1.0 U	1.0	3.3	ug/kg	58*	55*	75-125	4	30
Aroclor 5460	1.0 U	1.0	3.3	ug/kg					
PCB-1016	0.33 U	0.33	1.7	ug/kg	98		72-120		
PCB-1221	0.50 U	0.50	1.7	ug/kg					
PCB-1232	0.52 U	0.52	1.7	ug/kg					
PCB-1242	0.50 U	0.50	1.7	ug/kg					
PCB-1248	0.33 U	0.33	1.7	ug/kg					
PCB-1254	0.33 U	0.33	1.7	ug/kg					
PCB-1260	0.33 U	0.33	1.7	ug/kg	116		65-137		
PCB-1262	0.33 U	0.33	1.7	ug/kg					
PCB-1268	0.33 U	0.33	1.7	ug/kg					

Batch number: 103460001A	Sample number(s): 6162870								
EFH (C12-C14)	0.10 U	0.10	0.60	mg/l	112	110	60-120	2	30
EFH (C15-C20)	0.10 U	0.10	0.60	mg/l	112	113	60-120	1	30
EFH (C21-C30)	0.10 U	0.10	0.60	mg/l	108	108	60-120	0	30
EFH (C30 - C40)	0.10 U	0.10	0.60	mg/l	107	107	60-120	0	30
EFH (C8-C11)	0.10 U	0.10	0.60	mg/l	88	88	60-120	0	30

Batch number: 103490010A	Sample number(s): 6162855-6162858,6162860-6162863,6162875-6162880								
EFH (C12-C14)	0.40 U	0.40	1.2	mg/kg	99		66-113		
EFH (C15-C20)	0.40 U	0.40	1.2	mg/kg	104		66-113		
EFH (C21-C30)	0.40 U	0.40	1.2	mg/kg	112		66-113		
EFH (C30 - C40)	0.40 U	0.40	1.2	mg/kg	108		66-113		
EFH (C8-C11)	0.40 U	0.40	1.2	mg/kg	82		66-113		

Batch number: 103560020A	Sample number(s): 6162864-6162866								
EFH (C12-C14)	0.40 U	0.40	1.2	mg/kg	86		66-113		
EFH (C15-C20)	0.40 U	0.40	1.2	mg/kg	92		66-113		
EFH (C21-C30)	0.40 U	0.40	1.2	mg/kg	97		66-113		
EFH (C30 - C40)	0.40 U	0.40	1.2	mg/kg	97		66-113		
EFH (C8-C11)	0.40 U	0.40	1.2	mg/kg	67		66-113		

Batch number: 103480001A	Sample number(s): 6162870								
Ethanol	200 U	200.	1,000	ug/l	96		66-132		
Isopropanol	200 U	200.	1,000	ug/l	92		75-125		
Methanol	200 U	200.	1,000	ug/l	96		77-137		

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## Quality Control Summary

 Client Name: CDM Federal Programs Corp.  
 Reported: 01/21/11 at 03:50 PM

Group Number: 1225035

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 103480002A	Sample number(s): 6162855-6162858,6162860-6162866,6162875								
Ethanol	100	100.	500	ug/kg	96		75-112		
	U								
Isopropanol	100	100.	500	ug/kg	95		75-125		
	U								
Methanol	100	100.	500	ug/kg	104		75-134		
	U								
Batch number: 103480003A	Sample number(s): 6162876-6162880								
Ethanol	100	100.	500	ug/kg	86		75-112		
	U								
Isopropanol	100	100.	500	ug/kg	88		75-125		
	U								
Methanol	100	100.	500	ug/kg	87		75-134		
	U								
Batch number: 103480004A	Sample number(s): 6162870								
Diethylene glycol	10	U 10.	100	mg/l	100		78-126		
Ethylene glycol	10	U 10.	100	mg/l	95		80-124		
Propylene glycol	10	U 10.	100	mg/l	95		80-120		
Batch number: 103480018A	Sample number(s): 6162855-6162858,6162860-6162866,6162875								
Diethylene glycol	5.0	U 5.0	13	mg/kg	96		75-125		
Ethylene glycol	5.0	U 5.0	13	mg/kg	87		75-125		
Propylene glycol	5.0	U 5.0	13	mg/kg	102		75-125		
Batch number: 103480019A	Sample number(s): 6162876-6162880								
Diethylene glycol	5.0	U 5.0	13	mg/kg	92		75-125		
Ethylene glycol	5.0	U 5.0	13	mg/kg	85		75-125		
Propylene glycol	5.0	U 5.0	13	mg/kg	93		75-125		
Batch number: 103470004A	Sample number(s): 6162870								
m-Terphenyl	0.080	U 0.080	0.25	mg/l	97	100	75-125	3	20
o-Terphenyl	0.080	U 0.080	0.25	mg/l	98	100	75-125	2	20
p-Terphenyl	0.080	U 0.080	0.25	mg/l	95	98	75-125	3	20
Batch number: 103500031A	Sample number(s): 6162855-6162858,6162860-6162866,6162875-6162880								
m-Terphenyl	1.5	U 1.5	3.5	mg/kg	102		75-125		
o-Terphenyl	1.5	U 1.5	3.5	mg/kg	105		75-125		
p-Terphenyl	1.5	U 1.5	3.5	mg/kg	100		75-125		
Batch number: 103471848006	Sample number(s): 6162868								
Aluminum	0.0834	U 0.0834	0.200	mg/l	97	95	90-112	1	20
Boron	0.0138	U 0.0138	0.0500	mg/l	99	98	90-110	1	20
Calcium	0.0702	U 0.0702	0.200	mg/l	106	107	90-112	0	20
Iron	0.0522	U 0.0522	0.200	mg/l	101	100	90-112	1	20
Lithium	0.0024	U 0.0024	0.0200	mg/l	103	103	80-120	0	20
Magnesium	0.0172	U 0.0172	0.100	mg/l	106	106	89-110	0	20
Manganese	0.00084	U 0.00084	0.0050	mg/l	106	104	90-110	1	20
Phosphorus	0.0089	U 0.0089	0.100	mg/l	101	102	80-120	0	20
Potassium	0.239	U 0.239	0.500	mg/l	105	105	85-115	1	20
Sodium	0.433	U 0.433	1.00	mg/l	104	104	87-114	0	20
Strontium	0.00089	U 0.00089	0.0050	mg/l	101	100	90-110	1	20
Tin	0.0098	U 0.0098	0.0200	mg/l	102	102	90-110	0	20
Titanium	0.0038	U 0.0038	0.0100	mg/l	103	102	90-113	1	20
Zirconium	0.0206	U 0.0206	0.0500	mg/l	104	104	80-120	1	20
Batch number: 103475713002	Sample number(s): 6162868								

\*- Outside of specification

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## Quality Control Summary

 Client Name: CDM Federal Programs Corp.  
 Reported: 01/21/11 at 03:50 PM

Group Number: 1225035

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Mercury	0.000050 U	0.000005	0.00020	mg/l	103	103	80-120	0	20
Batch number: 103476050003A	Sample number(s): 6162868								
Antimony	0.00030 U	0.00030	0.0010	mg/l	101	110	87-110	8	20
Arsenic	0.00095 U	0.00095	0.0020	mg/l	108	108	86-111	1	20
Beryllium	0.00013 U	0.00013	0.00050	mg/l	104	104	90-112	0	20
Cadmium	0.00020 U	0.00020	0.00050	mg/l	100	106	90-114	6	20
Chromium	0.00060 U	0.00060	0.0020	mg/l	103	104	90-118	1	20
Cobalt	0.00010 U	0.00010	0.00050	mg/l	101	103	80-120	2	20
Copper	0.00038 U	0.00038	0.0020	mg/l	106	109	90-113	3	20
Lead	0.000052 U	0.00005	0.0010	mg/l	103	104	90-115	2	20
Nickel	0.00050 U	0.00050	0.0020	mg/l	109	109	90-113	0	20
Silver	0.000080 U	0.00008	0.00050	mg/l	100	102	90-115	2	20
Thallium	0.00015 U	0.00015	0.00050	mg/l	105	104	89-116	1	20
Vanadium	0.00016 U	0.00016	0.00050	mg/l	102	108	80-120	6	20
Zinc	0.0051 J	0.0040	0.0150	mg/l	95	96	80-120	1	20
Batch number: 103476050003B	Sample number(s): 6162868								
Selenium	0.00025 U	0.00025	0.0020	mg/l	103	108	85-114	5	20
Batch number: 103476050003C	Sample number(s): 6162868								
Molybdenum	0.00025 U	0.00025	0.00050	mg/l	107	107	80-120	1	20
Batch number: 103476050003D	Sample number(s): 6162868								
Barium	0.00038 U	0.00038	0.0020	mg/l	100	102	88-113	2	20
Batch number: 103491026002A	Sample number(s): 6162855-6162858, 6162860-6162867, 6162871-6162880								
Antimony	0.0577 U	0.0577	0.192	mg/kg	61		11-208		
Arsenic	0.0577 U	0.0577	0.385	mg/kg	93		80-120		
Beryllium	0.0154 U	0.0154	0.0962	mg/kg	95		82-118		
Cadmium	0.0346 U	0.0346	0.0962	mg/kg	98		82-118		
Chromium	0.115 U	0.115	0.385	mg/kg	102		80-120		
Cobalt	0.0192 U	0.0192	0.0962	mg/kg	106		82-118		
Copper	0.334 J	0.0635	0.385	mg/kg	101		80-120		
Lead	0.0100 U	0.0100	0.192	mg/kg	100		80-120		
Nickel	0.0962 U	0.0962	0.385	mg/kg	104		80-120		
Silver	0.0115 U	0.0115	0.0962	mg/kg	94		66-134		
Thallium	0.0288 U	0.0288	0.0962	mg/kg	98		81-119		
Vanadium	0.0212 U	0.0212	0.0962	mg/kg	92		90-110		
Zinc	0.538 U	0.538	2.88	mg/kg	99		78-122		
Batch number: 103491026002B	Sample number(s): 6162855-6162858, 6162860-6162867, 6162871-6162880								
Selenium	0.0385 U	0.0385	0.385	mg/kg	102		79-122		
Batch number: 103491026002C	Sample number(s): 6162855-6162858, 6162860-6162867, 6162871-6162880								
Molybdenum	0.0481 U	0.0481	0.0962	mg/kg	99		78-122		
Batch number: 103491026002D	Sample number(s): 6162855-6162858, 6162860-6162867, 6162871-6162880								
Barium	0.104 U	0.104	0.385	mg/kg	96		79-121		
Batch number: 103495708002	Sample number(s): 6162855-6162858, 6162860-6162867, 6162871-6162880								
Aluminum	4.88 U	4.88	19.4	mg/kg	82		61-110		
Boron	0.864 U	0.864	4.85	mg/kg	84		78-110		
Calcium	5.95 U	5.95	19.4	mg/kg	101		88-110		
Iron	4.57 U	4.57	19.4	mg/kg	85		61-110		

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## Quality Control Summary

 Client Name: CDM Federal Programs Corp.  
 Reported: 01/21/11 at 03:50 PM

Group Number: 1225035

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Lithium	0.21 U	0.21	1.9	mg/kg	102		80-120		
Magnesium	2.47 U	2.47	9.71	mg/kg	91		82-110		
Manganese	0.0757 U	0.0757	0.485	mg/kg	97		81-119		
Phosphorus	0.649 J	0.544	9.71	mg/kg	99		80-120		
Potassium	17.5 U	17.5	48.5	mg/kg	94		78-110		
Sodium	36.2 U	36.2	97.1	mg/kg	91		87-110		
Strontium	0.0602 U	0.0602	0.485	mg/kg	100		79-121		
Tin	1.42 J	0.971	9.71	mg/kg	100		90-114		
Zirconium	0.816 U	0.816	4.85	mg/kg	104		80-120		
Batch number: 103495711002	Sample number(s): 6162855-6162858,6162860-6162867,6162871-6162880								
Mercury	0.0028 U	0.0028	0.0979	mg/kg	98		88-123		
Batch number: 103505708003	Sample number(s): 6162855-6162858,6162860-6162867,6162871-6162880								
Titanium	0.380 U	0.380	1.00	mg/kg	95		80-120		
Batch number: 10344113001A	Sample number(s): 6162868								
3b Cr VI by EPA 7199	5.0 U	5.0	250	ug/l	99		90-110		
Batch number: 10344196901A	Sample number(s): 6162870								
11b Anions by 300.0 - Nitrate	0.050 U	0.050	0.10	mg/l	99	96	90-110	4	20
Batch number: 10350196902A	Sample number(s): 6162868								
11b Anions by 300.0 - Fluoride	0.080 U	0.080	0.10	mg/l	100	100	90-110	0	20
Batch number: 10352352201A	Sample number(s): 6162855-6162858,6162860-6162865,6162867								
11a Anions by 300.0 - Fluoride	0.80 U	0.80	1.0	mg/kg	102		90-110		
11a Anions by 300.0 - Nitrate	0.80 U	0.80	1.5	mg/kg	99		90-110		
Batch number: 10352352201B	Sample number(s): 6162871-6162880								
11a Anions by 300.0 - Fluoride	0.80 U	0.80	1.0	mg/kg	102		90-110		
11a Anions by 300.0 - Nitrate	0.80 U	0.80	1.5	mg/kg	99		90-110		
Batch number: 10352658701A	Sample number(s): 6162868								
7b Perchlorate EPA 314.0	0.70 U	0.70	2.0	ug/l	90	91	85-115	1	20
Batch number: 10354354201B	Sample number(s): 6162855-6162858,6162860-6162861								
7a Perchlorate EPA 314.0	9.0 U	9.0	30.0	ug/kg	97		85-115		
Batch number: 10355102202A	Sample number(s): 6162855-6162858,6162860-6162865,6162867								
21a Cyanide by 9012B	0.18 U	0.18	0.50	mg/kg	113		80-120		
Batch number: 10356243201A	Sample number(s): 6162855-6162858,6162860-6162865,6162867,6162871-6162880								
3a Cr VI by EPA 7199	0.20 U	0.20	1.0	mg/kg	93		80-120		
Batch number: 10356356201A	Sample number(s): 6162862-6162865,6162867,6162871-6162874								
7a Perchlorate EPA 314.0	14.6 J	9.0	30.0	ug/kg	97		85-115		
Batch number: 10357102201A	Sample number(s): 6162875-6162880								
21a Cyanide by 9012B	0.18 U	0.18	0.50	mg/kg	101		80-120		
Batch number: 10361117101A	Sample number(s): 6162870								
21b Cyanide by 9012B	0.0050 U	0.0050	0.010	mg/l	103	108	90-110	4	20
Batch number: 10348039401A	Sample number(s): 6162855-6162858								
22a pH by 9045C					100		95-105		
Batch number: 10348039401B	Sample number(s): 6162860-6162864,6162867,6162871-6162874								

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## Quality Control Summary

 Client Name: CDM Federal Programs Corp.  
 Reported: 01/21/11 at 03:50 PM

Group Number: 1225035

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
22a pH by 9045C					100		95-105		
Batch number: 10348039402A 22a pH by 9045C	Sample number(s): 6162875-6162880				100		95-105		
Batch number: 10348182101A Oxidation Reduction Potential	Sample number(s): 6162855-6162858,6162860				99		98-102		
Batch number: 10348182101B Oxidation Reduction Potential	Sample number(s): 6162861-6162864,6162867,6162871-6162874				99		98-102		
Batch number: 10348182102A Oxidation Reduction Potential	Sample number(s): 6162875-6162880				99		98-102		
Batch number: 10349020001A 22b pH by 9040B	Sample number(s): 6162868				100		99-101		
Batch number: 10347162401B 28a Moisture Content by 160.3	Sample number(s): 6162871-6162874				100		80-120		
Batch number: 10364162401A 28a Moisture Content by 160.3	Sample number(s): 6162855-6162858,6162860-6162863				100		80-120		
Batch number: 10364162401B 28a Moisture Content by 160.3	Sample number(s): 6162864-6162867,6162875-6162880				100		80-120		
Batch number: 10364162401B 28a Moisture Content by 160.3					100		80-120		
Batch number: 10364162401B 28a Moisture Content by 160.3					100		80-120		

## Sample Matrix Quality Control

 Unspiked (UNSPK) = the sample used in conjunction with the matrix spike  
 Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: B103481AA	Sample number(s): 6162855-6162858,6162860-6162864,6162875-6162880 UNSPK: P162812								
Acetone	187		15-210						
Benzene	108		55-143						
Bromobenzene	91		43-139						
Bromochloromethane	109		60-137						
Bromodichloromethane	103		53-136						
Bromoform	93		38-124						
Bromomethane	83		42-168						
2-Butanone	132		37-163						
n-Butylbenzene	80		30-146						
sec-Butylbenzene	86		33-157						
tert-Butylbenzene	88		41-152						
Carbon Tetrachloride	109		45-153						
Chlorobenzene	98		49-135						
Chloroethane	87		39-152						
2-Chloroethyl Vinyl Ether	95		32-139						
Chloroform	111		61-142						
Chloromethane	87		51-163						
2-Chlorotoluene	92		42-146						

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## Quality Control Summary

 Client Name: CDM Federal Programs Corp.  
 Reported: 01/21/11 at 03:50 PM

Group Number: 1225035

### Sample Matrix Quality Control

 Unspiked (UNSPK) = the sample used in conjunction with the matrix spike  
 Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS</u> <u>%REC</u>	<u>MSD</u> <u>%REC</u>	<u>MS/MSD</u> <u>Limits</u>	<u>RPD</u>	<u>RPD</u> <u>MAX</u>	<u>BKG</u> <u>Conc</u>	<u>DUP</u> <u>Conc</u>	<u>DUP</u> <u>RPD</u>	<u>Dup RPD</u> <u>Max</u>
4-Chlorotoluene	90		39-145						
1,2-Dibromo-3-chloropropane	82		30-139						
Dibromochloromethane	99		51-128						
1,2-Dibromoethane	95		54-129						
Dibromomethane	103		57-130						
1,2-Dichlorobenzene	87		36-133						
1,3-Dichlorobenzene	83		34-134						
1,4-Dichlorobenzene	85		35-136						
Dichlorodifluoromethane	62		26-151						
1,1-Dichloroethane	108		63-142						
1,2-Dichloroethane	106		68-131						
1,1-Dichloroethene	109		61-149						
cis-1,2-Dichloroethene	106		60-136						
trans-1,2-Dichloroethene	108		59-142						
1,2-Dichloropropane	105		62-135						
1,3-Dichloropropane	100		58-129						
2,2-Dichloropropane	104		53-147						
1,1-Dichloropropene	105		54-145						
cis-1,3-Dichloropropene	95		51-131						
trans-1,3-Dichloropropene	92		49-129						
Ethylbenzene	100		44-141						
Freon 113	100		56-156						
Hexachlorobutadiene	57		10-155						
2-Hexanone	85		32-160						
Isopropylbenzene	95		38-144						
p-Isopropyltoluene	85		29-152						
Methyl Tertiary Butyl Ether	96		55-129						
4-Methyl-2-pentanone	73		46-139						
Methylene Chloride	147*		61-141						
n-Propylbenzene	94		39-157						
Styrene	97		35-134						
1,1,1,2-Tetrachloroethane	102		52-130						
1,1,2,2-Tetrachloroethane	91		40-152						
Tetrachloroethene	106		42-149						
Toluene	101		50-146						
1,2,3-Trichlorobenzene	60		10-140						
1,2,4-Trichlorobenzene	61		10-136						
1,1,1-Trichloroethane	95		64-142						
1,1,2-Trichloroethane	100		54-139						
Trichloroethene	105		53-144						
Trichlorofluoromethane	96		47-163						
1,2,3-Trichloropropane	93		45-154						
1,2,4-Trimethylbenzene	90		37-149						
1,3,5-Trimethylbenzene	92		38-150						
Vinyl Chloride	86		50-154						
m+p-Xylene	100		44-137						
o-Xylene	96		42-137						

 Batch number: E103493AA Sample number(s): 6162880 UNSPK: P163871  
 1,4-Dioxane 104 95 70-130 9 30

 Batch number: 10348SLG026 Sample number(s): 6162855-6162858,6162860-6162866,6162871-6162880 UNSPK: 6162864  
 Acenaphthene 92 94 75-115 3 30

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## Quality Control Summary

 Client Name: CDM Federal Programs Corp.  
 Reported: 01/21/11 at 03:50 PM

Group Number: 1225035

### Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS</u> <u>%REC</u>	<u>MSD</u> <u>%REC</u>	<u>MS/MSD</u> <u>Limits</u>	<u>RPD</u> <u>RPD</u>	<u>RPD</u> <u>MAX</u>	<u>BKG</u> <u>Conc</u>	<u>DUP</u> <u>Conc</u>	<u>DUP</u> <u>RPD</u>	<u>Dup RPD</u> <u>Max</u>
Acenaphthylene	95	96	49-126	1	30				
Aniline	67	70	14-114	4	30				
Anthracene	96	99	75-115	4	30				
Benzidine	44	48	35-141	9	30				
Benzo(a)anthracene	96	102	65-122	5	30				
Benzo(a)pyrene	106	107	57-126	1	30				
Benzo(b)fluoranthene	113	102	59-125	10	30				
Benzo(g,h,i)perylene	111	108	59-127	2	30				
Benzo(k)fluoranthene	101	114	56-132	12	30				
Benzoic acid	39	35	10-173	12	30				
Benzyl alcohol	88	88	55-123	1	30				
4-Bromophenyl-phenylether	98	101	67-129	3	30				
Butylbenzylphthalate	110	111	73-134	1	30				
Di-n-butylphthalate	97	102	67-123	5	30				
Carbazole	91	92	64-120	2	30				
4-Chloro-3-methylphenol	87	86	53-130	2	30				
4-Chloroaniline	45	43	23-95	4	30				
bis(2-Chloroethoxy)methane	88	90	54-117	2	30				
bis(2-Chloroethyl)ether	89	87	60-116	2	30				
bis(2-Chloroisopropyl)ether	59	59	55-142	0	30				
2-Chloronaphthalene	80	107	50-141	30	30				
2-Chlorophenol	97	94	73-121	2	30				
4-Chlorophenyl-phenylether	94	100	64-119	6	30				
Chrysene	98	99	62-128	1	30				
Dibenz(a,h)anthracene	108	111	65-125	3	30				
Dibenzofuran	94	97	71-112	3	30				
1,2-Dichlorobenzene	91	89	66-108	2	30				
1,3-Dichlorobenzene	88	87	63-109	0	30				
1,4-Dichlorobenzene	90	90	53-113	0	30				
3,3'-Dichlorobenzidine	75	77	25-123	3	30				
2,4-Dichlorophenol	91	92	78-117	1	30				
Diethylphthalate	91	94	66-118	4	30				
2,4-Dimethylphenol	91	90	56-130	1	30				
3,5-Dimethylphenol	107	107	70-130	0	30				
Dimethylphthalate	92	96	64-118	4	30				
4,6-Dinitro-2-methylphenol	77	71	10-148	9	30				
2,4-Dinitrophenol	51	46	20-143	10	30				
2,4-Dinitrotoluene	88	89	57-114	1	30				
2,6-Dinitrotoluene	91	93	69-123	2	30				
1,2-Diphenylhydrazine	93	96	71-129	3	30				
bis(2-Ethylhexyl)phthalate	110	113	63-122	3	30				
Fluoranthene	90	93	59-122	3	30				
Fluorene	92	94	60-125	3	30				
Hexachlorobenzene	100	103	61-111	3	30				
Hexachlorobutadiene	92	93	62-120	1	30				
Hexachlorocyclopentadiene	78	72	10-153	8	30				
Hexachloroethane	90	87	57-109	4	30				
Indeno(1,2,3-cd)pyrene	111	111	61-126	0	30				
Isophorone	83	81	51-118	3	30				
1-Methylnaphthalene	95	93	73-112	3	30				
2-Methylnaphthalene	89	88	76-114	0	30				
2-Methylphenol	89	87	47-142	3	30				
4-Methylphenol	83	81	55-126	2	30				

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## Quality Control Summary

 Client Name: CDM Federal Programs Corp.  
 Reported: 01/21/11 at 03:50 PM

Group Number: 1225035

### Sample Matrix Quality Control

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 Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS</u> <u>%REC</u>	<u>MSD</u> <u>%REC</u>	<u>MS/MSD</u> <u>Limits</u>	<u>RPD</u> <u>RPD</u>	<u>RPD</u> <u>MAX</u>	<u>BKG</u> <u>Conc</u>	<u>DUP</u> <u>Conc</u>	<u>DUP</u> <u>RPD</u>	<u>Dup RPD</u> <u>Max</u>
Naphthalene	92	92	72-116	0	30				
2-Nitroaniline	93	98	67-125	5	30				
3-Nitroaniline	88	89	59-122	1	30				
4-Nitroaniline	65	64	52-112	1	30				
Nitrobenzene	82	82	51-114	0	30				
2-Nitrophenol	93	91	74-115	3	30				
4-Nitrophenol	62	65	39-133	5	30				
N-Nitroso-di-n-propylamine	75	73	60-116	3	30				
N-Nitrosodimethylamine	81	76	47-116	6	30				
N-Nitrosodiphenylamine	102	105	86-145	3	30				
Di-n-octylphthalate	125	126	56-126	0	30				
Pentachlorophenol	73	80	17-149	9	30				
Phenanthrene	92	96	65-125	4	30				
Phenol	83	78	58-126	6	30				
Pyrene	104	106	51-151	2	30				
1,2,4-Trichlorobenzene	97	95	72-115	2	30				
2,4,5-Trichlorophenol	93	96	34-139	3	30				
2,4,6-Trichlorophenol	96	102	49-140	6	30				

Batch number: 10349SLF026	Sample number(s): 6162855-6162858,6162860-6162866,6162871-6162880 UNSPK: 6162864
Acenaphthene	90 95 63-105 5 30
Acenaphthylene	102 102 55-126 0 30
Anthracene	103 101 46-136 2 30
Benzo(a)anthracene	96 97 39-144 1 30
Benzo(a)pyrene	96 96 34-156 0 30
Benzo(b)fluoranthene	120 119 43-155 1 30
Benzo(g,h,i)perylene	34 39 33-141 13 30
Benzo(k)fluoranthene	109 112 42-144 3 30
Butylbenzylphthalate	130 130 73-140 0 30
Di-n-butylphthalate	122 109 78-160 11 30
Chrysene	91 91 29-156 0 30
Dibenz(a,h)anthracene	45 50 41-130 10 30
Diethylphthalate	104 106 87-131 2 30
Dimethylphthalate	105 111 74-118 6 30
Bis(2-Ethylhexyl)phthalate	108 136 39-167 16 30
Fluoranthene	117 102 26-166 12 30
Fluorene	100 103 45-121 2 30
Indeno(1,2,3-cd)pyrene	43 47 21-143 10 30
1-Methylnaphthalene	98 98 72-123 0 30
2-Methylnaphthalene	88 88 28-121 0 30
Naphthalene	83 92 61-102 10 30
N-Nitrosodimethylamine	92 109 48-113 17 30
Di-n-octylphthalate	157 202* 40-192 25 30
Phenanthrene	94 93 12-165 1 30
Pyrene	91 96 15-153 5 30

Batch number: 10350SLF026	Sample number(s): 6162855-6162858,6162860-6162866,6162875-6162880 UNSPK: 6162864
N-Nitrosodimethylamine	91 93 70-130 2 30

Batch number: 10340B34B	Sample number(s): 6162855-6162857,6162860 UNSPK: P156146
9a TPH by EPA 8015B Gas C5-C12	82 72 39-118 19 30

Batch number: 10350A20A	Sample number(s): 6162869 UNSPK: P162724
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## Quality Control Summary

 Client Name: CDM Federal Programs Corp.  
 Reported: 01/21/11 at 03:50 PM

Group Number: 1225035

### Sample Matrix Quality Control

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TPH-GRO S.CA water C5-C12	118		63-154					
Batch number: 103510022A	Sample number(s): 6162855-6162858,6162860-6162866,6162875-6162880 UNSPK: 6162864							
4-Amino-2,6-Dinitrotoluene	97	102	80-127	5	50			
2-Amino-4,6-Dinitrotoluene	97	101	80-137	4	50			
1,3-Dinitrobenzene	98	102	38-166	4	50			
2,4-Dinitrotoluene	95	98	80-131	4	50			
2,6-Dinitrotoluene	100	103	80-127	3	50			
HMX	83	89	63-128	7	50			
Nitrobenzene	100	102	80-125	2	50			
Nitroglycerin	86	90	80-120	5	50			
2-Nitrotoluene	102	105	80-122	4	50			
3-Nitrotoluene	102	106	72-119	4	50			
4-Nitrotoluene	102	105	80-125	3	50			
PETN	95	102	80-121	6	50			
RDX	91	94	75-129	3	50			
Tetryl	112	114	55-174	2	50			
1,3,5-Trinitrobenzene	110	125	82-126	12	50			
2,4,6-Trinitrotoluene	99	102	82-130	4	50			
Batch number: 103480008A	Sample number(s): 6162855-6162858,6162860-6162866,6162875-6162880 UNSPK: 6162864							
17a Formaldehyde by 8315A	104	97	80-120	6	50			
Batch number: 103490014A	Sample number(s): 6162864-6162866,6162871-6162874 UNSPK: 6162864							
2,4-D	96	97	28-161	1	35			
Dalapon	82	75	12-86	9	50			
2,4-DB	90	119	20-170	28	50			
Dicamba	124*	136*	33-120	9	50			
Dinoseb	9	12	1-44	24	35			
2,4-DP (Dichlorprop)	120	124	55-141	3	50			
MCPA	95	123	31-184	26	50			
MCPP (Mecoprop)	58	109	16-174	44	50			
2,4,5-T	82	87	25-132	6	35			
2,4,5-TP	84	89	10-183	6	35			
Batch number: 103490017A	Sample number(s): 6162858,6162860-6162866 UNSPK: 6162864							
6a Perchlorate EPA 6850	103	107	80-120	4	20			
Batch number: 103490013A	Sample number(s): 6162855-6162858,6162860-6162863,6162865-6162866,6162871-6162875,6162877-6162880 UNSPK: P162864							
PCB-1016	74	92	29-146	22	50			
PCB-1260	81	84	39-149	4	50			
Batch number: 103500011A	Sample number(s): 6162864-6162866,6162871-6162874 UNSPK: 6162864							
Aldrin	74	71	16-126	4	50			
Alpha BHC	106	94	10-129	12	50			
Beta BHC	88	84	14-147	4	50			
Gamma BHC - Lindane	100	94	10-140	6	50			
p,p-DDD	91	90	16-163	2	50			
p,p-DDE	82	79	18-161	4	50			
p,p-DDT	110	106	10-176	4	50			
Delta BHC	88	81	23-140	7	50			
Dieldrin	73	69	19-154	5	50			

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## Quality Control Summary

 Client Name: CDM Federal Programs Corp.  
 Reported: 01/21/11 at 03:50 PM

Group Number: 1225035

### Sample Matrix Quality Control

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Endosulfan I	79	79	16-137	0	50			
Endosulfan II	73	73	28-154	0	50			
Endosulfan Sulfate	113	98	21-160	14	50			
Endrin	84	79	11-149	6	50			
Endrin Aldehyde	74	65	10-148	14	35			
Endrin Ketone	81	79	22-165	2	50			
Heptachlor	90	86	13-126	5	50			
Heptachlor Epoxide	97	97	13-157	0	50			
Methoxychlor	104	101	32-147	3	50			
Batch number: 103540019A Sample number(s): 6162864,6162876 UNSPK: 6162864								
PCB-1016	101	104	29-146	3	50			
PCB-1260	105	111	39-149	5	50			
Batch number: 103490010A Sample number(s): 6162855-6162858,6162860-6162863,6162875-6162880 UNSPK: P162864								
EFH (C12-C14)	0*	0*	49-123	0	20			
EFH (C15-C20)	-121*	-2*	49-123	85*	20			
EFH (C21-C30)	-222 (2)	895 (2)	49-123	148*	20			
EFH (C30 - C40)	-644 (2)	1920 (2)	49-123	143*	20			
EFH (C8-C11)	0*	0*	49-123	0	20			
Batch number: 103560020A Sample number(s): 6162864-6162866 UNSPK: 6162864								
EFH (C12-C14)	80	77	49-123	3	20			
EFH (C15-C20)	77	74	49-123	1	20			
EFH (C21-C30)	-37 (2)	-208 (2)	49-123	35*	20			
EFH (C30 - C40)	224 (2)	-351 (2)	49-123	45*	20			
EFH (C8-C11)	65	67	49-123	2	20			
Batch number: 103480001A Sample number(s): 6162870 UNSPK: P162152								
Ethanol	-3600 (2)	-4000 (2)	69-125	2	20			
Isopropanol	-400 (2)	-400 (2)	75-125	0	20			
Methanol	-9200 (2)	-10000 (2)	61-131	2	20			
Batch number: 103480002A Sample number(s): 6162855-6162858,6162860-6162866,6162875 UNSPK: 6162864								
Ethanol	79	79	24-143	0	20			
Isopropanol	76	75	75-125	0	20			
Methanol	92	90	45-136	2	20			
Batch number: 103480003A Sample number(s): 6162876-6162880 UNSPK: 6162876								
Ethanol	89	102	24-143	13	20			
Isopropanol	88	91	75-125	4	20			
Methanol	90	115	45-136	25*	20			
Batch number: 103480004A Sample number(s): 6162870 UNSPK: 6162870								
Diethylene glycol	100	100	83-130	0	20			
Ethylene glycol	85*	80*	89-125	6	20			

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 Reported: 01/21/11 at 03:50 PM

Group Number: 1225035

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Propylene glycol	114	105	91-128	9	20				
Batch number: 103480018A	Sample number(s): 6162855-6162858,6162860-6162866,6162875 UNSPK: 6162864								
Diethylene glycol	83	87	59-109	4	20				
Ethylene glycol	80	71	63-107	12	20				
Propylene glycol	94	90	63-107	5	20				
Batch number: 103480019A	Sample number(s): 6162876-6162880 UNSPK: 6162876								
Diethylene glycol	18*	27*	59-109	40*	20				
Ethylene glycol	57*	62*	63-107	9	20				
Propylene glycol	50*	52*	63-107	3	20				
Batch number: 103500031A	Sample number(s): 6162855-6162858,6162860-6162866,6162875-6162880 UNSPK: 6162864								
m-Terphenyl	99	99	75-125	0	20				
o-Terphenyl	106	105	75-125	1	20				
p-Terphenyl	95	94	75-125	1	20				
Batch number: 103491026002A	Sample number(s): 6162855-6162858,6162860-6162867,6162871-6162880 UNSPK: 6162864 BKG: 6162864								
Antimony	42*	21*	75-125	52*	20	0.128 J	0.0766 J	50* (1)	20
Arsenic	65*	88	75-125	6	20	5.48	3.97	32*	20
Beryllium	98	110	75-125	5	20	0.606	0.395	42* (1)	20
Cadmium	127*	149*	75-125	12	20	0.107	0.108	1 (1)	20
Chromium	128*	152*	75-125	5	20	22.1	16.9	26*	20
Cobalt	119	125	75-125	2	20	5.95	4.70	24*	20
Copper	101	113	75-125	4	20	10.1	7.62	28*	20
Lead	82	127*	75-125	13	20	6.59	5.14	25*	20
Nickel	113	129*	75-125	5	20	12.1	10.1	18	20
Silver	127*	139*	75-125	6	20	0.0353 J	0.0194 J	58* (1)	20
Thallium	121	144*	75-125	10	20	0.259	0.192	30* (1)	20
Vanadium	90	149*	75-125	11	20	38.1	28.5	29*	20
Zinc	-154 (2)	-45 (2)	75-125	16	20	79.4	52.8	40*	20
Batch number: 103491026002B	Sample number(s): 6162855-6162858,6162860-6162867,6162871-6162880 UNSPK: 6162864 BKG: 6162864								
Selenium	87	135*	75-125	37*	20	0.174 J	0.147 J	17 (1)	20
Batch number: 103491026002C	Sample number(s): 6162855-6162858,6162860-6162867,6162871-6162880 UNSPK: 6162864 BKG: 6162864								
Molybdenum	123	135*	75-125	5	20	1.14	0.952	18	20
Batch number: 103491026002D	Sample number(s): 6162855-6162858,6162860-6162867,6162871-6162880 UNSPK: 6162864 BKG: 6162864								
Barium	-19 (2)	464 (2)	75-125	38*	20	100	76.9	26*	20
Batch number: 103495708002	Sample number(s): 6162855-6162858,6162860-6162867,6162871-6162880 UNSPK: 6162864 BKG: 6162864								
Aluminum	735 (2)	1377 (2)	75-125	9	20	12,200	11,800	4	20
Boron	91	89	84-115	2	20	3.70 J	2.78 J	28* (1)	20
Calcium	-122 (2)	283 (2)	75-125	33*	20	4,520	4,720	4	20

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## Quality Control Summary

 Client Name: CDM Federal Programs Corp.  
 Reported: 01/21/11 at 03:50 PM

Group Number: 1225035

### Sample Matrix Quality Control

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Iron	-1091 (2)	2293 (2)	75-125	19	20	16,900	17,600	4	20
Lithium	97	100	82-114	6	20	16.3	17.0	4	20
Magnesium	-53 (2)	288 (2)	75-125	17	20	3,750	3,960	6	20
Manganese	29 (2)	66 (2)	75-125	8	20	214	248	15	20
Phosphorus	40 (2)	101 (2)	75-125	13	20	408	460	12	20
Potassium	71*	120	75-125	14	20	2,630	2,640	0	20
Sodium	95	97	75-125	5	20	96.3	J 103	6 (1)	20
Strontium	94	95	75-115	3	20	25.3	24.6	3	20
Tin	94	92	80-110	2	20	1.98	J 1.89	J 5 (1)	20
Zirconium	101	98	75-125	1	20	2.39	J 2.68	J 11 (1)	20
Batch number: 103495711002	Sample number(s): 6162855-6162858,6162860-6162867,6162871-6162880 UNSPK: 6162864 BKG: 6162864								
Mercury	97	94	65-135	3	20	0.0066	J 0.0107	J 48* (1)	20
Batch number: 103505708003	Sample number(s): 6162855-6162858,6162860-6162867,6162871-6162880 UNSPK: 6162864 BKG: 6162864								
Titanium	327 (2)	294 (2)	75-125	3	20	951	963	1	20
Batch number: 10344113001A 3b Cr VI by EPA 7199	Sample number(s): 6162868 UNSPK: P160985 BKG: P160985 100 59-135 5.0 U 5.0 U 0 (1) 20								
Batch number: 10352352201A	Sample number(s): 6162855-6162858,6162860-6162865,6162867 UNSPK: 6162864 BKG: 6162864								
11a Anions by 300.0 - Fluoride	99		80-120			1.7	1.3	28* (1)	20
11a Anions by 300.0 - Nitrate	95		80-120			1.8	1.6	14 (1)	20
Batch number: 10352352201B	Sample number(s): 6162871-6162880 UNSPK: 6162871 BKG: 6162871								
11a Anions by 300.0 - Fluoride	68*		80-120			4.8	2.3	71* (1)	20
11a Anions by 300.0 - Nitrate	101		80-120			1.7	1.5	J 13 (1)	20
Batch number: 10354354201B 7a Perchlorate EPA 314.0	Sample number(s): 6162855-6162858,6162860-6162861 UNSPK: P162831 BKG: P162831 89 80-120 9.0 U 9.0 U 0 (1) 15								
Batch number: 10355102202A	Sample number(s): 6162855-6162858,6162860-6162865,6162867 UNSPK: 6162864 BKG: 6162864								
21a Cyanide by 9012B	115		75-125			0.17	U 0.18	U 0 (1)	20
Batch number: 10356243201A	Sample number(s): 6162855-6162858,6162860-6162865,6162867,6162871-6162880 UNSPK: 6162864 BKG: 6162864								
3a Cr VI by EPA 7199	89		75-125			0.20	U 0.48	J 200* (1)	20
Batch number: 10356356201A	Sample number(s): 6162862-6162865,6162867,6162871-6162874 UNSPK: 6162864 BKG: 6162864								
7a Perchlorate EPA 314.0	101		80-120			9.0	U 9.0	U 0 (1)	15
Batch number: 10357102201A	Sample number(s): 6162875-6162880 UNSPK: P162827 BKG: P162827								
21a Cyanide by 9012B	105		75-125			0.18	U 0.18	U 0 (1)	20
Batch number: 10348039401A 22a pH by 9045C	Sample number(s): 6162855-6162858 BKG: P162827 8.13 8.11 0 1								

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 Reported: 01/21/11 at 03:50 PM

Group Number: 1225035

### Sample Matrix Quality Control

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Batch number: 10348039401B 22a pH by 9045C	Sample number(s): 6162860-6162864,6162867,6162871-6162874				8.46	8.50	BKG: 6162864 0	1
Batch number: 10348039402A 22a pH by 9045C	Sample number(s): 6162875-6162880				BKG: 6162875 7.26	7.26	0	1
Batch number: 10348182101A Oxidation Reduction Potential	Sample number(s): 6162855-6162858,6162860				BKG: P162827 396	396	0	6
Batch number: 10348182101B Oxidation Reduction Potential	Sample number(s): 6162861-6162864,6162867,6162871-6162874				453	454	BKG: 6162864 0	6
Batch number: 10348182102A Oxidation Reduction Potential	Sample number(s): 6162875-6162880				BKG: 6162875 473	473	0	6
Batch number: 10349020001A 22b pH by 9040B	Sample number(s): 6162868				BKG: P164396 7.1	7.1	0	1
Batch number: 10347162401B 28a Moisture Content by 160.3	Sample number(s): 6162871-6162874				BKG: 6162874 9.6	9.6	1	20
Batch number: 10364162401A 28a Moisture Content by 160.3	Sample number(s): 6162855-6162858,6162860-6162863				6.4	7.0	BKG: 6162862 8	20
Batch number: 10364162401B 28a Moisture Content by 160.3	Sample number(s): 6162864-6162867,6162875-6162880				8.5	8.6	BKG: 6162864 1	20
28a Moisture Content by 160.3					8.5	8.6	1	20
28a Moisture Content by 160.3					8.5	8.6	1	20

### Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 1a Volatile Organics EPA 8260B

Batch number: B103481AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
6162855	103	100	97	90
6162856	103	95	97	90
6162857	104	97	99	89
6162858	107	106	95	93
6162860	107	106	94	92
6162861	105	101	95	92
6162862	106	99	98	91
6162863	105	101	96	90
6162864	106	102	97	89
6162875	104	99	97	91
6162876	105	98	97	91
6162877	106	101	96	92

\*- Outside of specification

\*\*-This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

## Quality Control Summary

Client Name: CDM Federal Programs Corp.  
Reported: 01/21/11 at 03:50 PM

Group Number: 1225035

### Surrogate Quality Control

6162878	105	100	98	91
6162879	106	104	96	92
6162880	105	100	97	91
Blank	104	106	95	92
LCS	100	102	99	98
LCSD	100	103	99	98
MS	101	102	99	98

Limits: 80-120                      80-120                      81-117                      74-121

Analysis Name: 14b 1,4-Dioxane by 8260B SIM  
Batch number: E103491AA  
Toluene-d8

6162859	102
6162869	103
Blank	101
LCS	101
LCSD	101

Limits: 80-120

Analysis Name: 14a 1,4-Dioxane by 8260B SIM  
Batch number: E103492AA  
Toluene-d8

6162855	99
6162856	100
6162857	100
6162858	100
6162860	100
6162861	99
6162862	100
6162863	100
6162864	100
6162875	100
6162876	99
6162877	99
6162878	99
6162879	100
Blank	101
LCS	101
LCSD	101

Limits: 70-130

Analysis Name: 14a 1,4-Dioxane by 8260B SIM  
Batch number: E103493AA  
Toluene-d8

6162880	100
Blank	99
LCS	99
LCSD	101
MS	101
MSD	100

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

## Quality Control Summary

 Client Name: CDM Federal Programs Corp.  
 Reported: 01/21/11 at 03:50 PM

Group Number: 1225035

### Surrogate Quality Control

Limits: 70-130

 Analysis Name: 1b Volatile Organics EPA8260  
 Batch number: Y103462AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
6162859	100	99	104	99
6162869	99	91	103	99
Blank	99	96	104	100
LCS	99	99	105	101
LCSD	99	99	105	102

Limits: 86-118                      80-120                      88-110                      86-115

 Analysis Name: 19b NDMA by 1625C  
 Batch number: 10347WAA026

 N-Nitrosodimethylamine-  
 d6

6162870	122
Blank	93
LCS	90
LCSD	161*

Limits: 50-150

 Analysis Name: 5b Semivolatiles by EPA 8270C  
 Batch number: 10347WAE026

	2-Fluorophenol	Phenol-d6	2,4,6-Tribromophenol	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6162868	47	30	92	85	86	83
Blank	39	25	82	67	71	77
LCS	53	35	92	86	87	87
LCSD	58	39	92	89	92	88

Limits: 20-130                      20-120                      30-130                      40-130                      45-130                      45-135

 Analysis Name: 4b Select SVOC EPA 8270SIM  
 Batch number: 10347WAI026

Nitrobenzene-d5                      2-Fluorobiphenyl                      Terphenyl-d14

6162868	99	86	92
Blank	88	87	92
LCS	96	88	90
LCSD	95	88	91

Limits: 40-130                      45-130                      45-135

 Analysis Name: 5a Semivolatiles by EPA 8270C  
 Batch number: 10348SLG026

	Phenol-d6	2-Fluorophenol	2,4,6-Tribromophenol	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6162855	82	91	82	74	87	91
6162856	79	86	82	71	87	89
6162857	82	89	80	75	89	96
6162858	77	87	79	71	83	91
6162860	75	84	78	71	84	92

\*- Outside of specification

\*\*-This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

## Quality Control Summary

 Client Name: CDM Federal Programs Corp.  
 Reported: 01/21/11 at 03:50 PM

Group Number: 1225035

### Surrogate Quality Control

6162861	78	86	77	71	88	94
6162862	78	86	77	69	84	97
6162863	81	88	80	75	88	92
6162864	84	91	89	75	89	91
6162865	86	96	86	80	94	97
6162866	84	93	90	79	96	96
6162871	81	88	79	75	89	97
6162872	80	88	79	73	91	94
6162873	79	86	75	72	83	79
6162874	82	90	90	73	89	84
6162875	78	87	88	72	84	80
6162876	71	77	91	69	81	78
6162877	78	83	88	75	87	83
6162878	83	89	90	74	84	82
6162879	82	91	81	74	86	83
6162880	81	88	86	71	85	82
Blank	77	85	91	76	89	87
LCS	86	94	93	77	91	89
MS	86	96	86	80	94	97
MSD	84	93	90	79	96	96
<hr/>						
Limits:	25-120	25-130	35-130	40-130	45-130	45-135

 Analysis Name: 4a Select SVOC EPA 8270SIM  
 Batch number: 10349SLF026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6162855	92	83	93
6162856	99	85	91
6162857	97	84	85
6162858	94	84	98
6162860	102	89	98
6162861	100	86	96
6162862	99	88	96
6162863	92	82	105
6162864	94	85	92
6162865	99	82	104
6162866	95	83	94
6162871	100	89	99
6162872	97	87	95
6162873	98	86	98
6162874	101	86	95
6162875	98	88	99
6162876	97	90	99
6162877	99	90	100
6162878	77	68	73
6162879	101	88	96
6162880	96	89	99
Blank	92	87	89
LCS	93	86	89
MS	99	82	104
MSD	95	83	94
<hr/>			
Limits:	40-130	45-130	45-135

Analysis Name: 19a NDMA by 1625C

Batch number: 10350SLF026

N-Nitrosodimethylamine-

\*- Outside of specification

\*\*-This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

## Quality Control Summary

Client Name: CDM Federal Programs Corp.  
Reported: 01/21/11 at 03:50 PM

Group Number: 1225035

### Surrogate Quality Control

d6

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6162855	99
6162856	83
6162857	95
6162858	109
6162860	101
6162861	103
6162862	98
6162863	94
6162864	102
6162865	94
6162866	99
6162875	92
6162876	84
6162877	87
6162878	82
6162879	82
6162880	82
Blank	110
LCS	102
MS	94
MSD	99

---

Limits: 50-150

Analysis Name: 9a TPH by EPA 8015B Gas C5-C12  
Batch number: 10340B34B  
Trifluorotoluene-F

---

6162855	91
6162856	85
6162857	90
6162860	90
Blank	98
LCS	93
LCSD	99
MS	94
MSD	85

---

Limits: 61-122

Analysis Name: 9a TPH by EPA 8015B Gas C5-C12  
Batch number: 10348A34A  
Trifluorotoluene-F

---

6162858	85
6162861	81
6162862	88
6162863	82
6162864	86
6162875	87
6162876	79
6162877	85
6162878	81
6162879	84
6162880	85

---

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

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- (2) The unspiked result was more than four times the spike added.

## Quality Control Summary

Client Name: CDM Federal Programs Corp.  
Reported: 01/21/11 at 03:50 PM

Group Number: 1225035

### Surrogate Quality Control

Blank 94  
LCS 96  
LCSD 90

Limits: 61-122

Analysis Name: 9b TPH by EPA 8015B Gas C5-C12  
Batch number: 10350A20A  
Trifluorotoluene-F

6162869 84  
Blank 83  
LCS 115  
LCSD 111  
MS 112

Limits: 63-135

Analysis Name: 9b TPH by EPA 8015B Gas C5-C12  
Batch number: 10351B53B  
Trifluorotoluene-F

6162859 75  
Blank 73  
LCS 85  
LCSD 83

Limits: 63-135

Analysis Name: 9b TPH by EPA 8015B Gas C5-C12  
Batch number: 10355B20A  
Trifluorotoluene-F

6162870 84  
Blank 83  
LCS 113  
LCSD 110

Limits: 63-135

Analysis Name: 17b Formaldehyde by 8315A  
Batch number: 103440024A  
Butyraldehyde

6162870 98  
Blank 91  
LCS 104  
LCSD 106

Limits: 45-145

Analysis Name: 8b PCBs/PCTs by 8082  
Batch number: 103470015A  
Tetrachloro-m-xylene      Decachlorobiphenyl

6162868 115                      104  
Blank 116                      101

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

## Quality Control Summary

Client Name: CDM Federal Programs Corp.  
Reported: 01/21/11 at 03:50 PM

Group Number: 1225035

### Surrogate Quality Control

LCS	116	112
LCSD	120	102

---

Limits: 30-150                      45-120

Analysis Name: 12b Pesticides by 8081A  
Batch number: 103470016A  
Tetrachloro-m-xylene              Decachlorobiphenyl

6162868	110	105
Blank	102	82
LCS	106	91
LCSD	101	89

---

Limits: 52-141                      40-144

Analysis Name: 17a Formaldehyde by 8315A  
Batch number: 103480008A  
Butyraldehyde

6162855	106
6162856	97
6162857	95
6162858	104
6162860	101
6162861	103
6162862	103
6162863	101
6162864	105
6162865	101
6162866	98
6162875	91
6162876	100
6162877	99
6162878	98
6162879	102
6162880	102
Blank	106
LCS	101
MS	101
MSD	98

---

Limits: 64-126

Analysis Name: 13b Herbicides by EPA 8151  
Batch number: 103480009A  
2,4-Dichlorophenylacetic  
acid

6162868	71
Blank	61
LCS	88
LCSD	87

---

Limits: 35-144

Analysis Name: 20b Energetics by 8330A

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

## Quality Control Summary

Client Name: CDM Federal Programs Corp.  
Reported: 01/21/11 at 03:50 PM

Group Number: 1225035

### Surrogate Quality Control

Batch number: 103480011A  
2-Nitro-m-xylene

6162870	63
Blank	76
LCS	91
LCSD	81

Limits: 50-134

Analysis Name: 13b Herbicides by EPA 8151  
Batch number: 103490003A  
2,4-Dichlorophenylacetic acid

6162870	91
Blank	86
LCS	96
LCSD	112

Limits: 35-144

Analysis Name: 8a PCBs/PCTs by 8082  
Batch number: 103490013A

	Tetrachloro-m-xylene	Decachlorobiphenyl
6162855	89	93
6162856	84	80
6162857	75	71
6162858	79	78
6162860	91	94
6162861	78	71
6162862	76	71
6162863	80	72
6162865	83	78
6162866	88	81
6162871	74	76
6162872	82	79
6162873	88	78
6162874	71	63
6162875	70	68
6162877	84	80
6162878	82	79
6162879	86	82
6162880	77	72
Blank	107	83
LCS	86	73
LCSD	98	89
MS	83	78
MSD	88	81

Limits: 53-139                      45-120

Analysis Name: 13a Herbicides by EPA 8151  
Batch number: 103490014A  
2,4-Dichlorophenylacetic acid

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

## Quality Control Summary

Client Name: CDM Federal Programs Corp.  
Reported: 01/21/11 at 03:50 PM

Group Number: 1225035

### Surrogate Quality Control

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6162864	109
6162865	93
6162866	107
6162871	88
6162872	134
6162873	124
6162874	143
Blank	110
LCS	100
MS	93
MSD	107

---

Limits: 36-156

Analysis Name: 12a Pesticides by 8081A

Batch number: 103500011A

	Tetrachloro-m-xylene	Decachlorobiphenyl
6162864	82	86
6162865	83	80
6162866	77	87
6162871	80	83
6162872	86	86
6162873	84	78
6162874	93	106
Blank	91	113
LCS	88	108
MS	83	80
MSD	77	87

---

Limits: 50-130                      20-120

Analysis Name: 20a Energetics by 8330A

Batch number: 103510022A

2-Nitro-m-xylene

---

6162855	109
6162856	110
6162857	109
6162858	113
6162860	110
6162861	106
6162862	109
6162863	108
6162864	106
6162865	102
6162866	101
6162875	105
6162876	109
6162877	110
6162878	111
6162879	99
6162880	109
Blank	113
LCS	115
LCSD	116
MS	102

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

## Quality Control Summary

Client Name: CDM Federal Programs Corp.  
Reported: 01/21/11 at 03:50 PM

Group Number: 1225035

### Surrogate Quality Control

MSD 101

Limits: 80-146

Analysis Name: 8a PCBs/PCTs by 8082

Batch number: 103540019A

	Tetrachloro-m-xylene	Decachlorobiphenyl
6162864	116	109
6162876	98	106
Blank	99	105
LCS	110	115
LCSD	102	106
MS	114	104
MSD	116	107

Limits: 53-139 45-120

Analysis Name: 9b TPH by EPA 8015B Oil/Diesel

Batch number: 103460001A

	Chlorobenzene	Orthoterphenyl
6162870	98	104
Blank	106	107
LCS	104	109
LCSD	101	108

Limits: 28-152 52-131

Analysis Name: 26b Terphenyls by 8015B

Batch number: 103470004A

n-Triacontane-d62

6162870	92
Blank	93
LCS	83
LCSD	92

Limits: 50-150

Analysis Name: 25b Alcohols by 8015B

Batch number: 103480001A

Acetone

6162870	100
Blank	107
LCS	110
MS	548*
MSD	562*

Limits: 54-147

Analysis Name: 25a Alcohols by 8015B

Batch number: 103480002A

Acetone

6162855	105
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\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

## Quality Control Summary

Client Name: CDM Federal Programs Corp.  
Reported: 01/21/11 at 03:50 PM

Group Number: 1225035

### Surrogate Quality Control

6162856	103
6162857	92
6162858	89
6162860	95
6162861	97
6162862	91
6162863	86
6162864	95
6162865	95
6162866	95
6162875	91
Blank	131
LCS	109
MS	95
MSD	95

---

Limits: 42-138

Analysis Name: 25a Alcohols by 8015B  
Batch number: 103480003A  
Acetone

---

6162876	86
6162877	93
6162878	88
6162879	83
6162880	88
Blank	88
LCS	92
MS	89
MSD	87

---

Limits: 42-138

Analysis Name: 27b Glycols by 8015B  
Batch number: 103480004A  
Tetramethylene glycol

---

6162870	91
Blank	96
LCS	103
MS	117
MSD	90

---

Limits: 10-164

Analysis Name: 27a Glycols by 8015B  
Batch number: 103480018A  
Tetramethylene glycol

---

6162855	87
6162856	91
6162857	94
6162858	85
6162860	83
6162861	89
6162862	77

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

## Quality Control Summary

Client Name: CDM Federal Programs Corp.  
Reported: 01/21/11 at 03:50 PM

Group Number: 1225035

### Surrogate Quality Control

6162863 85  
6162864 74  
6162865 100  
6162866 85  
6162875 77  
Blank 94  
LCS 100  
MS 100  
MSD 85

Limits: 50-119

Analysis Name: 27a Glycols by 8015B  
Batch number: 103480019A  
Tetramethylene glycol

6162876 31\*  
6162877 84  
6162878 84  
6162879 86  
6162880 83  
Blank 95  
LCS 96  
MS 59  
MSD 50

Limits: 50-119

Analysis Name: 9a TPH by EPA 8015B Oil/Diesel  
Batch number: 103490010A

	Chlorobenzene	Orthoterphenyl
6162855	77	87
6162856	69	85
6162857	63	90
6162858	73	88
6162860	67	85
6162861	70	89
6162862	67	85
6162863	74	84
6162875	73	88
6162876	65	77
6162877	85	93
6162878	69	86
6162879	67	84
6162880	81	93
Blank	87	94
LCS	88	99
MS	2*	32*
MSD	90	91

Limits: 37-125 47-145

Analysis Name: 26a Terphenyls by 8015B  
Batch number: 103500031A  
n-Triacontane-d62

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

## Quality Control Summary

Client Name: CDM Federal Programs Corp.  
Reported: 01/21/11 at 03:50 PM

Group Number: 1225035

### Surrogate Quality Control

6162855 192\*  
6162856 197\*  
6162857 89  
6162858 98  
6162860 195\*  
6162861 106  
6162862 93  
6162863 105  
6162864 99  
6162865 99  
6162866 106  
6162875 94  
6162876 98  
6162877 102  
6162878 101  
6162879 105  
6162880 95  
Blank 103  
LCS 99  
MS 99  
MSD 106

---

Limits: 50-150

Analysis Name: 9a TPH by EPA 8015B Oil/Diesel  
Batch number: 103560020A

	Chlorobenzene	Orthoterphenyl
6162864	74	84
6162865	77	90
6162866	77	85
Blank	71	76
LCS	76	83
MS	77	90
MSD	77	85

---

Limits: 37-125                      47-145

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

acct# 13013 Cp# 1225035

Sample# G162855-80

CHAIN OF CUSTODY RECORD

CDM SSFL AREA IV COLLOCATED SOIL SAMPLING																							Other Instructions and Notes					
NOTES:																												
*Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels @ For hex chrome analysis, lab will measure pH and ORP																												
Samplers: (Signature) <i>[Signature]</i>						VOCs/EPA 8260B	1,4-Dioxane EPA 8260SIM	SVOCs EPA 8270C & PAHs 8270 SIM	TPH-GRO EPA 8015B	TPH-EFH EPA 8015B Mod.	*Metals EPA 6010/6020&87471A	*Hex Chrome EPA 7199*	*Fluoride EPA 300.0	*PCBs EPA 8082	*Dioxin/Furan EPA 1613B	*Perchlorate EPA 314.0	Perchlorate Confirmation by EPA 6850	**Nitrates EPA 300.0	**Formaldehyde EPA 8315A	**n-NDMA EPA 1625C	**Energetics EPA 8330A	**Cyanide EPA 9012B	**pH EPA 9045C	**Terphenyls EPA 8015B	**Glycols EPA 8015B	**Alcohols EPA 8015B		
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers																							
SL-015-SA5C-SB-4.0-5.0	12/8/10	1403	soil	none	2 x 16 oz. jars			X			X	X	X	X	X													
SL-015-SA5C-SB-4.0-5.0	12/8/10	1433	soil	none	1 x 16 oz. jar												X	X	X	X	X	X	X					
SL-015-SA5C-SB-4.0-5.0	12/8/10	1433	soil	none	3 x 4 oz. jars				X																X	X		
SL-015-SA5C-SB-9.0-10.0	12/8/10	1440	soil	none	2 x 16 oz. jars			X		X	X	X	X	X	X													
SL-015-SA5C-SB-9.0-10.0	12/8/10	1440	soil	none	1 x 16 oz. jar												X	X	X	X	X	X	X					
SL-015-SA5C-SB-9.0-10.0	12/8/10	1440	soil	none	3 x 4 oz. jars				X																X	X		
SL-020-SA5C-SB-4.0-5.0	12/8/10	0955	soil	none	2 x 16 oz. jars			X		X	X	X	X	X	X													
SL-020-SA5C-SB-4.0-5.0	12/8/10	0955	soil	none	3 x 4 oz. jars				X																X	X		
SL-020-SA5C-SB-7.5-8.5	12/8/10	1000	soil	none	3 x 4 oz. jars				X																X	X		
SL-015-SA5C-SB-4.5	12/8/10	1423	soil	none	5 Encore samplers	X	X		X																			
SL-015-SA5C-SB-9.5	12/8/10	1435	soil	none	5 Encore samplers	X	X		X																			
SL-020-SA5C-SB-4.5	12/8/10	0950	soil	none	5 Encore samplers	X	X		X																			
SL-020-SA5C-SB-8.0	12/8/10	0958	soil	none	5 Encore samplers	X	X		X																			
SL-021-SA5C-SB-4.5	12/8/10	1150	soil	none	5 Encore samplers	X	X		X																			
SL-021-SA5C-SB-9.5	12/8/10	1158	soil	none	5 Encore samplers	X	X		X																			
TB-120810	12/8/10	1630	water	HCl	4 - 40 ml vials	X	X		X																			
Relinquished by: (Signature) <i>[Signature]</i>		Date/Time 12.08.10 1630		Received for Laboratory by: (Signature) <i>[Signature]</i>			Date/Time 12/10/10 9:15																			Laboratory: Lancaster Laboratories, Inc.		
Received by: (Signature)		Date/Time		Airbill No. 00732992			Tracking Number 869514318211																				Cooler 1	









acet#1303

Cup#1225035

sample# 6162855-80

CHAIN OF CUSTODY RECORD

CDM SSFL AREA IV COLLOCATED SOIL SAMPLING						VOCs/EPA 8260B	1,4-Dioxane EPA 8260SIM	SVOCs EPA 8270C & PAHs 8270 SIM	TPH-GRO EPA 8015B	TPH-EFH EPA 8015B Mod.	*Metals EPA 6010/6020B&7471A	*Hex Chrome EPA 7199*	*Fluoride EPA 300.0	*PCBs EPA 8082	*Dioxin/Furan EPA 1613B	*Perchlorate EPA 314.0	Perchlorate Confirmation by EPA 6850	**Nitrates EPA 300.0	**Formaldehyde EPA 8315A	**n-NDMA EPA 1625C	**Energetics EPA 8330A	**Cyanide EPA 9012B	**pH EPA 9045C	**Terphenyls EPA 8015B	**Glycols EPA 8015B	**Alcohols EPA 8015B	Other Instructions and Notes
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels @ For hex chrome analysis, lab will measure pH and ORP																											
SAMPLERS: (Signature) <i>Pamela Bata</i>						SUBSURFACE SAMPLES																					
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers																						
SL-016-SA5C-SB-4.0-5.0	12/8/10	1610	soil	none	3 x 4 oz. jars					X														X	X	Perchlorate was removed from	
SL-016-SA5C-SB-9.0-10.0	12/8/10	1623	soil	none	3 x 4 oz. jars					X														X	X	removed from	
SL-021-SA5C-SB-4.0-5.0	12/8/10	1155	soil	none	3 x 4 oz. jars					X														X	X	SL-022-SA5C-4.0-5.0,	
SL-021-SA5C-SB-9.0-10.0	12/8/10	1200	soil	none	3 x 4 oz. jars					X														X	X	SL-022-SA5C-9.0-10.0,	
SL-022-SA5C-SB-4.0-5.0	12/9/10	0956	soil	none	2 x 16 oz. jars			X			X	X	X	X	X	X	X	X	X	X	X	X				SL-012-SA5C-4.0-5.0,	
SL-022-SA5C-SB-4.0-5.0	12/9/10	0956	soil	none	1 x 16 oz. jars													X	X	X	X	X	X			NUM SL-012-SA5C-9.0-10.0,	
SL-022-SA5C-SB-4.0-5.0	12/9/10	0956	soil	none	3 x 4 oz. jars					X													X	X	SL-013-SA5C-SB-4.0-5.0,		
SL-022-SA5C-SB-9.0-10.0	12/9/10	1002	soil	none	2 x 16 oz. jars			X			X	X	X	X	X	X	X	X	X	X	X	X			and SL-013-SA5C-SB-9.0-10.0		
SL-022-SA5C-SB-9.0-10.0	12/9/10	1002	soil	none	1 x 16 oz. jars													X	X	X	X	X	X			per PB on 12/12/10.	
SL-022-SA5C-SB-9.0-10.0	12/9/10	1002	soil	none	3 x 4 oz. jars					X													X	X	NUM 1/6/11		
Relinquished by: (Signature) _____ Date/Time 12.09.10 1630						Received for Laboratory by: (Signature) <i>Mary M...</i> Date/Time 12/10/10 09:15						Laboratory: Lancaster Laboratories, Inc.															
Received by: (Signature) _____ Date/Time _____						Airbill No. 00732992 Tracking Number 869514317248						Cooler 3															



# Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

<b>RL</b>	Reporting Limit	<b>BMQL</b>	Below Minimum Quantitation Level
<b>N.D.</b>	none detected	<b>MPN</b>	Most Probable Number
<b>TNTC</b>	Too Numerous To Count	<b>CP Units</b>	cobalt-chloroplatinate units
<b>IU</b>	International Units	<b>NTU</b>	nephelometric turbidity units
<b>umhos/cm</b>	micromhos/cm	<b>ng</b>	nanogram(s)
<b>C</b>	degrees Celsius	<b>F</b>	degrees Fahrenheit
<b>meq</b>	milliequivalents	<b>lb.</b>	pound(s)
<b>g</b>	gram(s)	<b>kg</b>	kilogram(s)
<b>ug</b>	microgram(s)	<b>mg</b>	milligram(s)
<b>ml</b>	milliliter(s)	<b>l</b>	liter(s)
<b>m3</b>	cubic meter(s)	<b>ul</b>	microliter(s)
<b>&lt;</b>	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
<b>&gt;</b>	greater than		
<b>J</b>	estimated value – The result is $\geq$ the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
<b>ppm</b>	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
<b>ppb</b>	parts per billion		
<b>Dry weight basis</b>	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

## U.S. EPA CLP Data Qualifiers:

Organic Qualifiers	Inorganic Qualifiers
<b>A</b> TIC is a possible aldol-condensation product	<b>B</b> Value is $<$ CRDL, but $\geq$ IDL
<b>B</b> Analyte was also detected in the blank	<b>E</b> Estimated due to interference
<b>C</b> Pesticide result confirmed by GC/MS	<b>M</b> Duplicate injection precision not met
<b>D</b> Compound quantitated on a diluted sample	<b>N</b> Spike sample not within control limits
<b>E</b> Concentration exceeds the calibration range of the instrument	<b>S</b> Method of standard additions (MSA) used for calculation
<b>N</b> Presumptive evidence of a compound (TICs only)	<b>U</b> Compound was not detected
<b>P</b> Concentration difference between primary and confirmation columns $>$ 25%	<b>W</b> Post digestion spike out of control limits
<b>U</b> Compound was not detected	<b>*</b> Duplicate analysis not within control limits
<b>X,Y,Z</b> Defined in case narrative	<b>+</b> Correlation coefficient for MSA $<$ 0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

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## ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories  
2425 New Holland Pike  
Lancaster, PA 17605-2425

Prepared for:

CDM Federal Programs Corp.  
14420 Albemarle Point Place  
Suite 210  
Chantilly VA 20151

January 21, 2011

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 12/10/2010  
Group Number: 1225037  
SDG: DE034  
PO Number: 1203-004-007-AL  
Release Number: Tracking #11667  
State of Sample Origin: CA

<u>Client Sample Description</u>	<u>Lancaster Labs (LLI) #</u>
SL-017-SA5C-SB-4.0-5.0 Soil	6162903
SL-017-SA5C-SB-9.0-10.0 Soil	6162904
SL-008-SA5B-SS-0.0-0.5 Soil	6162905
SL-009-SA5B-SS-0.0-0.5 Soil	6162906
SL-228-SA5B-SS-0.0-0.5 Soil	6162907
SL-229-SA5B-SS-0.0-0.5 Soil	6162908
SL-048-SA5B-SS-0.0-0.5 Soil	6162909
SL-051-SA5B-SS-0.0-0.5 Soil	6162910
SL-062-SA5B-SS-0.0-0.5 Soil	6162911
SL-064-SA5B-SS-0.0-0.5 Soil	6162912
SL-232-SA5B-SS-0.0-0.5 Soil	6162913
SL-233-SA5B-SS-0.0-0.5 Soil	6162914
SL-299-SA5B-SS-0.0-0.5 Soil	6162915
SL-300-SA5B-SS-0.0-0.5 Soil	6162916
SL-067-SA5B-SS-0.0-0.5 Soil	6162917
SL-059-SA5B-SS-0.0-0.5 Soil	6162918
SL-065-SA5B-SS-0.0-0.5 Soil	6162919
SL-061-SA5B-SS-0.0-0.5 Soil	6162920
SL-070-SA5B-SS-0.0-0.5 Soil	6162921

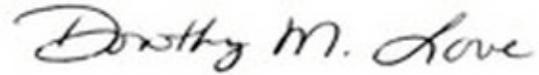
The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC    CDM Federal Services Program  
COPY TO  
1 COPY TO      Data Package Group

Attn: Todd Burgesser

Questions? Contact your Client Services Representative  
Nicole L Maljovec at (717) 656-2300 Ext. 1537

Respectfully Submitted,



**Dorothy M. Love**  
Group Leader

**Sample Description:** SL-017-SA5C-SB-4.0-5.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-017-SA5C-SB-4.0-5.0

LLI Sample # SW 6162903  
 LLI Group # 1225037  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/09/2010 10:20

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3401 SDG#: DE034-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
06192	Acetone	67-64-1	9.9	7.2	8.6		0.97
06192	Benzene	71-43-2	0.11 U	0.11	4.3		0.97
06192	Bromobenzene	108-86-1	0.14 U	0.14	4.3		0.97
06192	Bromochloromethane	74-97-5	0.35 U	0.35	4.3		0.97
06192	Bromodichloromethane	75-27-4	0.09 U	0.09	4.3		0.97
06192	Bromoform	75-25-2	0.43 U	0.43	4.3		0.97
06192	Bromomethane	74-83-9	0.27 U	0.27	4.3		0.97
06192	2-Butanone	78-93-3	1.3 U	1.3	8.6		0.97
06192	n-Butylbenzene	104-51-8	0.13 U	0.13	4.3		0.97
06192	sec-Butylbenzene	135-98-8	0.06 U	0.06	4.3		0.97
06192	tert-Butylbenzene	98-06-6	0.17 U	0.17	4.3		0.97
06192	Carbon Tetrachloride	56-23-5	0.15 U	0.15	4.3		0.97
06192	Chlorobenzene	108-90-7	0.12 U	0.12	4.3		0.97
06192	Chloroethane	75-00-3	0.14 U	0.14	4.3		0.97
06192	2-Chloroethyl Vinyl Ether	110-75-8	0.32 U	0.32	4.3		0.97
06192	Chloroform	67-66-3	0.13 U	0.13	4.3		0.97
06192	Chloromethane	74-87-3	0.35 U	0.35	4.3		0.97
06192	2-Chlorotoluene	95-49-8	0.15 U	0.15	4.3		0.97
06192	4-Chlorotoluene	106-43-4	0.15 U	0.15	4.3		0.97
06192	Chlorotrifluoroethene	79-38-9	0.54 U	0.54	5.4		0.97
06192	1,2-Dibromo-3-chloropropane	96-12-8	0.75 U	0.75	4.3		0.97
06192	Dibromochloromethane	124-48-1	0.22 U	0.22	4.3		0.97
06192	1,2-Dibromoethane	106-93-4	0.18 U	0.18	4.3		0.97
06192	Dibromomethane	74-95-3	0.26 U	0.26	4.3		0.97
06192	1,2-Dichlorobenzene	95-50-1	0.1 U	0.1	4.3		0.97
06192	1,3-Dichlorobenzene	541-73-1	0.13 U	0.13	4.3		0.97
06192	1,4-Dichlorobenzene	106-46-7	0.17 U	0.17	4.3		0.97
06192	Dichlorodifluoromethane	75-71-8	0.13 U	0.13	4.3		0.97
06192	1,1-Dichloroethane	75-34-3	0.11 U	0.11	4.3		0.97
06192	1,2-Dichloroethane	107-06-2	0.16 U	0.16	4.3		0.97
06192	1,1-Dichloroethene	75-35-4	0.42 U	0.42	4.3		0.97
06192	cis-1,2-Dichloroethene	156-59-2	0.20 U	0.20	4.3		0.97
06192	trans-1,2-Dichloroethene	156-60-5	0.13 U	0.13	4.3		0.97
06192	1,2-Dichloropropane	78-87-5	0.18 U	0.18	4.3		0.97
06192	1,3-Dichloropropane	142-28-9	0.09 U	0.09	4.3		0.97
06192	2,2-Dichloropropane	594-20-7	0.18 U	0.18	4.3		0.97
06192	1,1-Dichloropropene	563-58-6	0.14 U	0.14	4.3		0.97
06192	cis-1,3-Dichloropropene	10061-01-5	0.17 U	0.17	4.3		0.97
06192	trans-1,3-Dichloropropene	10061-02-6	0.18 U	0.18	4.3		0.97
06192	Ethylbenzene	100-41-4	0.06 U	0.06	4.3		0.97
06192	Freon 113	76-13-1	0.12 U	0.12	4.3		0.97
06192	Freon 133a	75-88-7	0.54 U	0.54	5.4		0.97
06192	Hexachlorobutadiene	87-68-3	0.15 U	0.15	4.3		0.97
06192	2-Hexanone	591-78-6	1.7 U	1.7	8.6		0.97
06192	Isopropylbenzene	98-82-8	0.06 U	0.06	4.3		0.97
06192	p-Isopropyltoluene	99-87-6	0.12 U	0.12	4.3		0.97
06192	Methyl Tertiary Butyl Ether	1634-04-4	0.23 U	0.23	4.3		0.97
06192	4-Methyl-2-pentanone	108-10-1	0.42 U	0.42	8.6		0.97
06192	Methylene Chloride	75-09-2	1.1 J	0.26	4.3		0.97
06192	n-Propylbenzene	103-65-1	0.08 U	0.08	4.3		0.97

\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-017-SA5C-SB-4.0-5.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-017-SA5C-SB-4.0-5.0

**LLI Sample #** SW 6162903  
**LLI Group #** 1225037  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/09/2010 10:20

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3401 SDG#: DE034-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS Volatiles SW-846 8260B</b>							
06192	Styrene	100-42-5	0.11 U	0.11	4.3		0.97
06192	1,1,1,2-Tetrachloroethane	630-20-6	0.12 U	0.12	4.3		0.97
06192	1,1,2,2-Tetrachloroethane	79-34-5	0.25 U	0.25	4.3		0.97
06192	Tetrachloroethene	127-18-4	0.22 U	0.22	4.3		0.97
06192	Toluene	108-88-3	0.11 J	0.09	4.3		0.97
06192	1,2,3-Trichlorobenzene	87-61-6	0.15 U	0.15	4.3		0.97
06192	1,2,4-Trichlorobenzene	120-82-1	0.19 U	0.19	4.3		0.97
06192	1,1,1-Trichloroethane	71-55-6	0.22 U	0.22	4.3		0.97
06192	1,1,2-Trichloroethane	79-00-5	0.29 U	0.29	4.3		0.97
06192	Trichloroethene	79-01-6	0.16 U	0.16	4.3		0.97
06192	Trichlorofluoromethane	75-69-4	0.31 U	0.31	4.3		0.97
06192	1,2,3-Trichloropropane	96-18-4	0.35 U	0.35	4.3		0.97
06192	1,2,4-Trimethylbenzene	95-63-6	0.43 U	0.43	4.3		0.97
06192	1,3,5-Trimethylbenzene	108-67-8	0.11 U	0.11	4.3		0.97
06192	Vinyl Chloride	75-01-4	0.22 U	0.22	4.3		0.97
06192	m+p-Xylene	179601-23-1	0.18 U	0.18	4.3		0.97
06192	o-Xylene	95-47-6	0.18 U	0.18	4.3		0.97
<b>GC/MS Volatiles SW-846 8260B SIM</b>							
10326	1,4-Dioxane	123-91-1	4.9 U	4.9	15		22.05
<b>GC/MS Semivolatiles EPA 1625C</b>							
11622	N-Nitrosodimethylamine	62-75-9	18.5 U	18.5	37.0		1
<b>GC/MS Semivolatiles SW-846 8270C</b>							
04688	Aniline	62-53-3	180	U 180	550		1
04688	Benzidine	92-87-5	1,300	U 1,300	3,700		1
04688	Benzoic acid	65-85-0	180	U 180	550		1
04688	Benzyl alcohol	100-51-6	180	U 180	550		1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180		1
04688	Carbazole	86-74-8	18	U 18	180		1
04688	4-Chloro-3-methylphenol	59-50-7	37	U 37	180		1
04688	4-Chloroaniline	106-47-8	74	U 74	180		1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180		1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180		1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180		1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180		1
04688	2-Chlorophenol	95-57-8	18	U 18	180		1
04688	4-Chlorophenyl-phenylether	7005-72-3	37	U 37	180		1
04688	Dibenzofuran	132-64-9	18	U 18	180		1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180		1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180		1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180		1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	370		1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180		1
04688	2,4-Dimethylphenol	105-67-9	37	U 37	180		1
04688	3,5-Dimethylphenol	108-68-9	130	J 37	180		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	550		1
04688	2,4-Dinitrophenol	51-28-5	740	U 740	2,200		1

\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-017-SA5C-SB-4.0-5.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-017-SA5C-SB-4.0-5.0

**LLI Sample #** SW 6162903  
**LLI Group #** 1225037  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/09/2010 10:20

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3401 SDG#: DE034-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04688	2,4-Dinitrotoluene	121-14-2	37	U 37	180		1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180		1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180		1
04688	Hexachlorobenzene	118-74-1	18	U 18	180		1
04688	Hexachlorobutadiene	87-68-3	74	U 74	180		1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	550		1
04688	Hexachloroethane	67-72-1	18	U 18	180		1
04688	Isophorone	78-59-1	18	U 18	180		1
04688	2-Methylphenol	95-48-7	37	U 37	180		1
04688	4-Methylphenol	106-44-5	37	U 37	180		1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.							
04688	2-Nitroaniline	88-74-4	18	U 18	180		1
04688	3-Nitroaniline	99-09-2	37	U 37	180		1
04688	4-Nitroaniline	100-01-6	74	U 74	180		1
04688	Nitrobenzene	98-95-3	18	U 18	180		1
04688	2-Nitrophenol	88-75-5	18	U 18	180		1
04688	4-Nitrophenol	100-02-7	180	U 180	550		1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180		1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180		1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.							
04688	Pentachlorophenol	87-86-5	180	U 180	550		1
04688	Phenol	108-95-2	18	U 18	180		1
04688	1,2,4-Trichlorobenzene	120-82-1	18	U 18	180		1
04688	2,4,5-Trichlorophenol	95-95-4	37	U 37	180		1
04688	2,4,6-Trichlorophenol	88-06-2	37	U 37	180		1
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C SIM</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10138	Acenaphthene	83-32-9	0.74	U 0.74	1.8		1
10138	Acenaphthylene	208-96-8	0.37	U 0.37	1.8		1
10138	Anthracene	120-12-7	0.37	U 0.37	1.8		1
10138	Benzo(a)anthracene	56-55-3	0.74	U 0.74	1.8		1
10138	Benzo(a)pyrene	50-32-8	0.74	U 0.74	1.8		1
10138	Benzo(b)fluoranthene	205-99-2	0.74	U 0.74	1.8		1
10138	Benzo(g,h,i)perylene	191-24-2	0.74	U 0.74	1.8		1
10138	Benzo(k)fluoranthene	207-08-9	0.74	U 0.74	1.8		1
10138	Butylbenzylphthalate	85-68-7	6.7	U 6.7	20		1
10138	Di-n-butylphthalate	84-74-2	6.7	U 6.7	20		1
10138	Chrysene	218-01-9	0.37	U 0.37	1.8		1
10138	Dibenz(a,h)anthracene	53-70-3	0.74	U 0.74	1.8		1
10138	Diethylphthalate	84-66-2	6.7	U 6.7	20		1
10138	Dimethylphthalate	131-11-3	6.7	U 6.7	20		1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	14	J 6.7	20		1
10138	Fluoranthene	206-44-0	0.74	U 0.74	1.8		1
10138	Fluorene	86-73-7	0.74	U 0.74	1.8		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.74	U 0.74	1.8		1

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**Sample Description:** SL-017-SA5C-SB-4.0-5.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-017-SA5C-SB-4.0-5.0

**LLI Sample #** SW 6162903  
**LLI Group #** 1225037  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/09/2010 10:20

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3401 SDG#: DE034-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS Semivolatiles SW-846 8270C SIM</b>							
			ug/kg	ug/kg	ug/kg	ug/kg	
10138	1-Methylnaphthalene	90-12-0	0.74 U	0.74	1.8		1
10138	2-Methylnaphthalene	91-57-6	0.74 U	0.74	1.8		1
10138	Naphthalene	91-20-3	0.82 J	0.74	1.8		1
10138	N-Nitrosodimethylamine	62-75-9	0.74 U	0.74	1.8		1
10138	Di-n-octylphthalate	117-84-0	9.9 J	6.7	20		1
10138	Phenanthrene	85-01-8	0.74 U	0.74	1.8		1
10138	Pyrene	129-00-0	0.74 U	0.74	1.8		1
The GC/MS semivolatile internal standard peak areas were outside of QC limits. The matrix spike and matrix spike duplicate samples were analyzed and internal standard peak areas were again outside of QC limits, indicating a matrix effect.							
<b>GC Volatiles TPH GRO SW-846 8015B mod</b>							
			mg/kg	mg/kg	mg/kg	mg/kg	
05551	9a TPH by EPA 8015B Gas C5-C12	n.a.	0.2 U	0.2	0.9		20.49
<b>Explosives SW-846 8330A</b>							
			ug/kg	ug/kg	ug/kg	ug/kg	
10132	4-Amino-2,6-Dinitrotoluene	19406-51-0	83 U	83	170	1000000	1
10132	2-Amino-4,6-Dinitrotoluene	35572-78-2	55 U	55	170	0	1
10132	2,6-Diamino-4-nitrotoluene	59229-75-3	110 U	110	330	1000000	1
10132	2,4-Diamino-6-nitrotoluene	6629-29-4	110 U	110	330	0	1
10132	1,3-Dinitrobenzene	99-65-0	55 U	55	170	1000000	1
10132	2,4-Dinitrotoluene	121-14-2	55 U	55	170	0	1
10132	2,6-Dinitrotoluene	606-20-2	55 U	55	170	1000000	1
10132	HMX	2691-41-0	140 U	140	420	0	1
10132	Nitrobenzene	98-95-3	55 U	55	170	1000000	1
10132	Nitroglycerin	55-63-0	1,100 U	1,100	3,300	0	1
10132	2-Nitrotoluene	88-72-2	110 U	110	170	1000000	1
10132	3-Nitrotoluene	99-08-1	140 U	140	170	0	1
10132	4-Nitrotoluene	99-99-0	110 U	110	170	1000000	1
10132	PETN	78-11-5	1,100 U	1,100	3,300	0	1
10132	RDX	121-82-4	69 U	69	170	1000000	1
10132	Tetryl	479-45-8	85 U	85	170	0	1

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LLI Sample # SW 6162903  
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CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Explosives</b>							
	<b>SW-846 8330A</b>		<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10132	1,3,5-Trinitrobenzene	99-35-4	55	U 55	170	1000000	1
10132	2,4,6-Trinitrotoluene	118-96-7	55	U 55	170	1000000	1
<b>HPLC Organics</b>							
	<b>SW-846 8315A</b>		<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04173	17a Formaldehyde by 8315A	50-00-0	670	U 670	1,700		1
<b>Pesticides/PCBs</b>							
	<b>SW-846 8082</b>		<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10225	Aroclor 5432	63496-31-1	1.1	U 1.1	3.7		1
10225	Aroclor 5442	12642-23-8	1.1	U 1.1	3.7		1
10225	Aroclor 5460	11126-42-4	1.1	U 1.1	3.7		1
10225	PCB-1016	12674-11-2	0.37	U 0.37	1.9		1
10225	PCB-1221	11104-28-2	0.55	U 0.55	1.9		1
10225	PCB-1232	11141-16-5	0.58	U 0.58	1.9		1
10225	PCB-1242	53469-21-9	0.55	U 0.55	1.9		1
10225	PCB-1248	12672-29-6	0.37	U 0.37	1.9		1
10225	PCB-1254	11097-69-1	0.37	U 0.37	1.9		1
10225	PCB-1260	11096-82-5	0.37	U 0.37	1.9		1
10225	PCB-1262	37324-23-5	0.37	U 0.37	1.9		1
10225	PCB-1268	11100-14-4	0.37	U 0.37	1.9		1
The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.							
<b>GC Extractable TPH</b>							
	<b>SW-846 8015B modified</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
10199	EFH (C12-C14)	n.a.	0.44	U 0.44	1.3		1
10199	EFH (C15-C20)	n.a.	0.44	U 0.44	1.3		1
10199	EFH (C21-C30)	n.a.	2.1	0.44	1.3		1
10199	EFH (C30 - C40)	n.a.	4.3	0.44	1.3		1
10199	EFH (C8-C11)	n.a.	0.44	U 0.44	1.3		1
<b>GC Miscellaneous</b>							
	<b>SW-846 8015B</b>		<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10501	Ethanol	64-17-5	240	J 110	550		1
10501	Isopropanol	67-63-0	110	U 110	550		1
10501	Methanol	67-56-1	110	U 110	550		1
<b>GC Miscellaneous</b>							
	<b>SW-846 8015B modified</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
08283	Diethylene glycol	111-46-6	5.5	U 5.5	14		1
08283	Ethylene glycol	107-21-1	5.5	U 5.5	14		1
08283	Propylene glycol	57-55-6	5.5	U 5.5	14		1
<b>Terphenyls</b>							
	<b>SW-846 8015B</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
10318	m-Terphenyl	92-06-8	1.7	U 1.7	3.9		1
10318	o-Terphenyl	84-15-1	1.7	U 1.7	3.9		1
10318	p-Terphenyl	92-94-4	1.7	U 1.7	3.9		1

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 SSFL Area IV Collocated Soil Sampling  
 SL-017-SA5C-SB-4.0-5.0

LLI Sample # SW 6162903  
 LLI Group # 1225037  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

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Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3401 SDG#: DE034-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Metals</b>							
	<b>SW-846 6010B</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
01643	Aluminum	7429-90-5	15,400	5.41	21.5		1
07914	Boron	7440-42-8	8.63	0.958	5.38		1
01650	Calcium	7440-70-2	2,160	6.60	21.5		1
01654	Iron	7439-89-6	18,000	5.07	21.5		1
01656	Lithium	7439-93-2	17.3	0.24	2.2		1
01657	Magnesium	7439-95-4	3,310	2.73	10.8		1
06958	Manganese	7439-96-5	441	0.0840	0.538		1
10145	Phosphorus	7723-14-0	171	0.603	10.8		1
01662	Potassium	7440-09-7	2,340	19.4	53.8		1
01667	Sodium	7440-23-5	105 J	40.1	108		1
07968	Strontium	7440-24-6	19.0	0.0667	0.538		1
06969	Tin	7440-31-5	1.77 J	1.08	10.8		1
06970	Titanium	7440-32-6	1,340	0.421	1.11		1
10146	Zirconium	7440-67-7	2.11 J	0.904	5.38		1
	<b>SW-846 6020</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
06124	Antimony	7440-36-0	0.0665 U	0.0665	0.222		2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	5.10	0.0665	0.443		2
06126	Barium	7440-39-3	143	0.120	0.443		2
06127	Beryllium	7440-41-7	0.729	0.0177	0.111		2
06128	Cadmium	7440-43-9	0.219	0.0399	0.111		2
06131	Chromium	7440-47-3	20.0	0.133	0.443		2
06132	Cobalt	7440-48-4	8.93	0.0222	0.111		2
06133	Copper	7440-50-8	9.46	0.0732	0.443		2
06135	Lead	7439-92-1	7.25	0.0115	0.222		2
06138	Molybdenum	7439-98-7	0.680	0.0554	0.111		2
06139	Nickel	7440-02-0	14.9	0.111	0.443		2
06141	Selenium	7782-49-2	0.113 J	0.0443	0.443		2
06142	Silver	7440-22-4	0.0486 J	0.0133	0.111		2
06145	Thallium	7440-28-0	0.352	0.0333	0.111		2
06148	Vanadium	7440-62-2	30.2	0.0244	0.111		2
06149	Zinc	7440-66-6	57.9	0.621	3.33		2
	<b>SW-846 7471A</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
00159	Mercury	7439-97-6	0.0031 U	0.0031	0.107		1
<b>Wet Chemistry</b>							
	<b>EPA 300.0</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.4	0.89	1.1		1
07336	11a Anions by 300.0 - Nitrate	14797-55-8	3.6	0.89	1.7		1
	<b>EPA 314.0</b>		<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10147	7a Perchlorate EPA 314.0	14797-73-0	10 U	10	33.3		1
	<b>SW-846 7199</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
05892	3a Cr VI by EPA 7199	18540-29-9	0.71 J	0.22	1.1		1

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**Sample Description:** SL-017-SA5C-SB-4.0-5.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-017-SA5C-SB-4.0-5.0

**LLI Sample #** SW 6162903  
**LLI Group #** 1225037  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/09/2010 10:20

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 14420 Albemarle Point Place  
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Reported: 01/21/2011 10:22

E3401 SDG#: DE034-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Wet Chemistry</b>							
		<b>SW-846 9012B</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
05895	21a Cyanide by 9012B	57-12-5	0.20 U	0.20	0.55		1
		<b>ASTM D1498</b>	<b>mV</b>	<b>mV</b>	<b>mV</b>	<b>mV</b>	
01821	Oxidation Reduction Potential	n.a.	523	10.0	10.0		1
	The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.						
		<b>SW-846 9045C modified</b>	<b>Std. Units</b>	<b>Std. Units</b>	<b>Std. Units</b>	<b>Std. Units</b>	
00394	22a pH by 9045C	n.a.	7.58	0.0100	0.0100		1
<b>Wet Chemistry</b>							
		<b>EPA 160.3 modified</b>	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>	
11624	28a Moisture Content by 160.3	n.a.	9.8	0.50	0.50		1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

### General Sample Comments

State of California Lab Certification No. 2501  
 The volatile analysis was performed on soil from SL-017-SA5C-SB-4.5.  
 The VOA, GRO, and 1,4-Dioxane containers were submitted to the laboratory on 12/10/10 at 09:15.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06192	1a Volatile Organics EPA 8260B	SW-846 8260B	1	B103482AA	12/14/2010 22:47	Laura M Krieger	0.97
10326	14a 1,4-Dioxane by 8260B SIM	SW-846 8260B SIM	1	E103493AA	12/15/2010 23:31	Sara E Johnson	22.05
08390	GC/MS - HL Encore Prep	SW-846 5035	1	201034723287	12/10/2010 20:44	Christopher D Meeks	n.a.
07320	GC/MS - LL DIH20 Encore Prep	SW-846 5035	1	201034723287	12/13/2010 15:50	Christopher D Meeks	n.a.
07320	GC/MS - LL DIH20 Encore Prep	SW-846 5035	2	201034723287	12/13/2010 15:49	Christopher D Meeks	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035	1	201034723287	12/10/2010 20:44	Christopher D Meeks	n.a.
11622	19a NDMA by 1625C	EPA 1625C	1	10349SLE026	12/24/2010 19:07	Timothy J Trees	1
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10349SLJ026	01/04/2011 13:01	Brian K Graham	1

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E3401 SDG#: DE034-01

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10349SLG026	12/24/2010 05:55	Linda M Hartenstine	1
11630	NDMA Soil Microwave	SW-846 3546	1	10349SLE026	12/16/2010 03:00	Sherry L Morrow	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10349SLG026	12/16/2010 07:00	Joseph S Feister	1
00381	BNA Soil Sonication	SW-846 3550B	1	10349SLJ026	12/16/2010 07:00	Kerrie A Freeburn	1
05551	9a TPH by EPA 8015B Gas C5-C12	TPH GRO SW-846 8015B mod	1	10348A34A	12/15/2010 10:53	Marie D John	20.49
06130	GC - 5 g HL Encore Prep	SW-846 5035	1	201034723287	12/10/2010 20:44	Christopher D Meeks	n.a.
10132	20a Energetics by 8330A	SW-846 8330A	1	103480012A	12/16/2010 20:56	Michele D Hamilton	1
04173	17a Formaldehyde by 8315A	SW-846 8315A	1	103480007A	12/16/2010 01:00	Michele D Hamilton	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	103500025A	12/21/2010 08:54	Lindsey K Lafferty	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	103500025A	12/17/2010 00:40	Roman Kuropatkin	1
05876	Formaldehyde Solid Extraction	SW-846 8315A	1	103480007A	12/14/2010 15:00	Kelli M Barto	1
11137	Energetics Extraction	SW-846 8330	1	103480012A	12/14/2010 14:45	Wanda F Oswald	1
10199	9a TPH by EPA 8015B Oil/Diesel	SW-846 8015B modified	1	103470024A	12/17/2010 04:27	Heather E Williams	1
10501	25a Alcohols by 8015B	SW-846 8015B	1	103480003A	12/15/2010 17:38	Dustin A Underkoffler	1
08283	27a Glycols by 8015B	SW-846 8015B modified	1	103480019A	12/17/2010 16:26	Robert Brown	1
10318	26a Terphenyls by 8015B	SW-846 8015B	1	103550026A	12/23/2010 03:33	Heather E Williams	1
11238	EFH Extraction - Soils	SW-846 3550B	1	103470024A	12/14/2010 08:00	Joseph S Feister	1
10303	Terphenyls soil prep	SW-846 3550B	1	103550026A	12/22/2010 07:00	Kerrie A Freeburn	1
11551	Direct Inj. Solids Glycol Ext.	SW-846 8015B	1	103480019A	12/15/2010 12:00	Dustin A Underkoffler	1
00380	Direct Injection Solids Ext	SW-846 8015B	1	103480003A	12/15/2010 12:00	Dustin A Underkoffler	1
01643	Aluminum	SW-846 6010B	1	103495708003	12/17/2010 23:20	John W Yanzuk II	1
07914	Boron	SW-846 6010B	1	103495708003	12/17/2010 23:20	John W Yanzuk II	1
01650	Calcium	SW-846 6010B	1	103495708003	12/17/2010 23:20	John W Yanzuk II	1
01654	Iron	SW-846 6010B	1	103495708003	12/17/2010 23:20	John W Yanzuk II	1
01656	Lithium	SW-846 6010B	1	103495708003	12/17/2010 23:20	John W Yanzuk II	1
01657	Magnesium	SW-846 6010B	1	103495708003	12/17/2010 23:20	John W Yanzuk II	1
06958	Manganese	SW-846 6010B	1	103495708003	12/17/2010 23:20	John W Yanzuk II	1
10145	Phosphorus	SW-846 6010B	1	103495708003	12/17/2010 23:20	John W Yanzuk II	1
01662	Potassium	SW-846 6010B	1	103495708003	12/17/2010 23:20	John W Yanzuk II	1
01667	Sodium	SW-846 6010B	1	103495708003	12/17/2010 23:20	John W Yanzuk II	1
07968	Strontium	SW-846 6010B	1	103495708003	12/17/2010 23:20	John W Yanzuk II	1
06969	Tin	SW-846 6010B	1	103495708003	12/17/2010 23:20	John W Yanzuk II	1
06970	Titanium	SW-846 6010B	1	103545708005	12/21/2010 19:30	John P Hook	1
10146	Zirconium	SW-846 6010B	1	103495708003	12/17/2010 23:20	John W Yanzuk II	1
06124	Antimony	SW-846 6020	1	103491026003A	12/23/2010 14:53	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103491026003A	12/23/2010 14:53	Choon Y Tian	2

\*—This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description: SL-017-SA5C-SB-4.0-5.0 Soil**  
**SSFL Area IV Collocated Soil Sampling**  
**SL-017-SA5C-SB-4.0-5.0**

**LLI Sample # SW 6162903**  
**LLI Group # 1225037**  
**Account # 13013**

**Project Name: SSFL Area IV Collocated Soil Sampling**

Collected: 12/09/2010 10:20

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3401 SDG#: DE034-01

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06126	Barium	SW-846 6020	1	103491026003D	12/23/2010 14:53	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103491026003A	12/23/2010 14:53	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103491026003A	12/23/2010 14:53	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103491026003A	12/23/2010 14:53	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103491026003A	12/23/2010 14:53	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103491026003A	12/23/2010 14:53	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103491026003A	12/23/2010 14:53	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103491026003C	12/23/2010 14:53	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103491026003A	12/23/2010 14:53	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103491026003B	12/23/2010 14:53	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103491026003A	12/23/2010 14:53	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103491026003A	12/23/2010 14:53	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103491026003A	12/26/2010 06:35	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	103491026003A	12/23/2010 14:53	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	103495711003	12/20/2010 05:07	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	103495708003	12/16/2010 07:00	Denise K Connors	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	103545708005	12/20/2010 20:07	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103491026003	12/16/2010 07:35	Denise K Connors	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	103495711003	12/16/2010 08:55	Denise K Connors	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10361361201A	12/29/2010 08:18	Ashley M Adams	1
07336	11a Anions by 300.0 - Nitrate	EPA 300.0	1	10361361201A	12/29/2010 08:18	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10356356201A	12/27/2010 19:02	Ashley M Adams	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	10359243202A	12/30/2010 17:06	Ashley M Adams	1
05895	21a Cyanide by 9012B	SW-846 9012B	1	10357102201A	12/23/2010 19:51	Joseph E McKenzie	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10361361201A	12/27/2010 14:40	Nancy J Shoop	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10356356201A	12/22/2010 11:15	Nancy J Shoop	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	10357102201A	12/23/2010 15:10	Carolyn M Mastropietro	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10348182102A	12/14/2010 10:45	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10348039402A	12/14/2010 10:45	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10359243202A	12/25/2010 22:10	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	1	10357162401A	12/23/2010 21:06	Scott W Freisher	1

\*—This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-017-SA5C-SB-9.0-10.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-017-SA5C-SB-9.0-10.0

LLI Sample # SW 6162904  
 LLI Group # 1225037  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/09/2010 10:30

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3402 SDG#: DE034-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
06192	Acetone	67-64-1	6.8 U	6.8	8.2		0.91
06192	Benzene	71-43-2	0.10 U	0.10	4.1		0.91
06192	Bromobenzene	108-86-1	0.13 U	0.13	4.1		0.91
06192	Bromochloromethane	74-97-5	0.34 U	0.34	4.1		0.91
06192	Bromodichloromethane	75-27-4	0.08 U	0.08	4.1		0.91
06192	Bromoform	75-25-2	0.41 U	0.41	4.1		0.91
06192	Bromomethane	74-83-9	0.26 U	0.26	4.1		0.91
06192	2-Butanone	78-93-3	1.2 U	1.2	8.2		0.91
06192	n-Butylbenzene	104-51-8	0.12 U	0.12	4.1		0.91
06192	sec-Butylbenzene	135-98-8	0.06 U	0.06	4.1		0.91
06192	tert-Butylbenzene	98-06-6	0.16 U	0.16	4.1		0.91
06192	Carbon Tetrachloride	56-23-5	0.14 U	0.14	4.1		0.91
06192	Chlorobenzene	108-90-7	0.11 U	0.11	4.1		0.91
06192	Chloroethane	75-00-3	0.13 U	0.13	4.1		0.91
06192	2-Chloroethyl Vinyl Ether	110-75-8	0.31 U	0.31	4.1		0.91
06192	Chloroform	67-66-3	0.12 U	0.12	4.1		0.91
06192	Chloromethane	74-87-3	0.34 U	0.34	4.1		0.91
06192	2-Chlorotoluene	95-49-8	0.14 U	0.14	4.1		0.91
06192	4-Chlorotoluene	106-43-4	0.14 U	0.14	4.1		0.91
06192	Chlorotrifluoroethene	79-38-9	0.51 U	0.51	5.1		0.91
06192	1,2-Dibromo-3-chloropropane	96-12-8	0.71 U	0.71	4.1		0.91
06192	Dibromochloromethane	124-48-1	0.20 U	0.20	4.1		0.91
06192	1,2-Dibromoethane	106-93-4	0.17 U	0.17	4.1		0.91
06192	Dibromomethane	74-95-3	0.24 U	0.24	4.1		0.91
06192	1,2-Dichlorobenzene	95-50-1	0.09 U	0.09	4.1		0.91
06192	1,3-Dichlorobenzene	541-73-1	0.12 U	0.12	4.1		0.91
06192	1,4-Dichlorobenzene	106-46-7	0.16 U	0.16	4.1		0.91
06192	Dichlorodifluoromethane	75-71-8	0.12 U	0.12	4.1		0.91
06192	1,1-Dichloroethane	75-34-3	0.10 U	0.10	4.1		0.91
06192	1,2-Dichloroethane	107-06-2	0.15 U	0.15	4.1		0.91
06192	1,1-Dichloroethene	75-35-4	0.40 U	0.40	4.1		0.91
06192	cis-1,2-Dichloroethene	156-59-2	0.19 U	0.19	4.1		0.91
06192	trans-1,2-Dichloroethene	156-60-5	0.12 U	0.12	4.1		0.91
06192	1,2-Dichloropropane	78-87-5	0.17 U	0.17	4.1		0.91
06192	1,3-Dichloropropane	142-28-9	0.08 U	0.08	4.1		0.91
06192	2,2-Dichloropropane	594-20-7	0.17 U	0.17	4.1		0.91
06192	1,1-Dichloropropene	563-58-6	0.13 U	0.13	4.1		0.91
06192	cis-1,3-Dichloropropene	10061-01-5	0.16 U	0.16	4.1		0.91
06192	trans-1,3-Dichloropropene	10061-02-6	0.17 U	0.17	4.1		0.91
06192	Ethylbenzene	100-41-4	0.06 U	0.06	4.1		0.91
06192	Freon 113	76-13-1	0.11 U	0.11	4.1		0.91
06192	Freon 133a	75-88-7	0.51 U	0.51	5.1		0.91
06192	Hexachlorobutadiene	87-68-3	0.14 U	0.14	4.1		0.91
06192	2-Hexanone	591-78-6	1.6 U	1.6	8.2		0.91
06192	Isopropylbenzene	98-82-8	0.06 U	0.06	4.1		0.91
06192	p-Isopropyltoluene	99-87-6	0.11 U	0.11	4.1		0.91
06192	Methyl Tertiary Butyl Ether	1634-04-4	0.21 U	0.21	4.1		0.91
06192	4-Methyl-2-pentanone	108-10-1	9.7	0.40	8.2		0.91
06192	Methylene Chloride	75-09-2	0.97 J	0.24	4.1		0.91
06192	n-Propylbenzene	103-65-1	0.07 U	0.07	4.1		0.91

\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-017-SA5C-SB-9.0-10.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-017-SA5C-SB-9.0-10.0

**LLI Sample #** SW 6162904  
**LLI Group #** 1225037  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/09/2010 10:30

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3402 SDG#: DE034-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS Volatiles SW-846 8260B</b>							
06192	Styrene	100-42-5	0.10 U	0.10	4.1		0.91
06192	1,1,1,2-Tetrachloroethane	630-20-6	0.11 U	0.11	4.1		0.91
06192	1,1,2,2-Tetrachloroethane	79-34-5	0.23 U	0.23	4.1		0.91
06192	Tetrachloroethene	127-18-4	0.20 U	0.20	4.1		0.91
06192	Toluene	108-88-3	0.08 U	0.08	4.1		0.91
06192	1,2,3-Trichlorobenzene	87-61-6	0.14 U	0.14	4.1		0.91
06192	1,2,4-Trichlorobenzene	120-82-1	0.18 U	0.18	4.1		0.91
06192	1,1,1-Trichloroethane	71-55-6	0.20 U	0.20	4.1		0.91
06192	1,1,2-Trichloroethane	79-00-5	0.28 U	0.28	4.1		0.91
06192	Trichloroethene	79-01-6	0.15 U	0.15	4.1		0.91
06192	Trichlorofluoromethane	75-69-4	0.30 U	0.30	4.1		0.91
06192	1,2,3-Trichloropropane	96-18-4	0.34 U	0.34	4.1		0.91
06192	1,2,4-Trimethylbenzene	95-63-6	0.41 U	0.41	4.1		0.91
06192	1,3,5-Trimethylbenzene	108-67-8	0.10 U	0.10	4.1		0.91
06192	Vinyl Chloride	75-01-4	0.20 U	0.20	4.1		0.91
06192	m+p-Xylene	179601-23-1	0.17 U	0.17	4.1		0.91
06192	o-Xylene	95-47-6	0.17 U	0.17	4.1		0.91
<b>GC/MS Volatiles SW-846 8260B SIM</b>							
10326	1,4-Dioxane	123-91-1	6.8 U	6.8	21		30.56
<b>GC/MS Semivolatiles EPA 1625C</b>							
11622	N-Nitrosodimethylamine	62-75-9	18.6 U	18.6	37.3		1
<b>GC/MS Semivolatiles SW-846 8270C</b>							
04688	Aniline	62-53-3	190	U 190	560		1
04688	Benzidine	92-87-5	1,300	U 1,300	3,700		1
04688	Benzoic acid	65-85-0	190	U 190	560		1
04688	Benzyl alcohol	100-51-6	190	U 190	560		1
04688	4-Bromophenyl-phenylether	101-55-3	19	U 19	190		1
04688	Carbazole	86-74-8	19	U 19	190		1
04688	4-Chloro-3-methylphenol	59-50-7	37	U 37	190		1
04688	4-Chloroaniline	106-47-8	75	U 75	190		1
04688	bis(2-Chloroethoxy)methane	111-91-1	19	U 19	190		1
04688	bis(2-Chloroethyl)ether	111-44-4	19	U 19	190		1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	19	U 19	190		1
04688	2-Chloronaphthalene	91-58-7	19	U 19	190		1
04688	2-Chlorophenol	95-57-8	19	U 19	190		1
04688	4-Chlorophenyl-phenylether	7005-72-3	37	U 37	190		1
04688	Dibenzofuran	132-64-9	19	U 19	190		1
04688	1,2-Dichlorobenzene	95-50-1	19	U 19	190		1
04688	1,3-Dichlorobenzene	541-73-1	19	U 19	190		1
04688	1,4-Dichlorobenzene	106-46-7	19	U 19	190		1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	370		1
04688	2,4-Dichlorophenol	120-83-2	19	U 19	190		1
04688	2,4-Dimethylphenol	105-67-9	37	U 37	190		1
04688	3,5-Dimethylphenol	108-68-9	37	U 37	190		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	190	U 190	560		1
04688	2,4-Dinitrophenol	51-28-5	750	U 750	2,200		1

\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-017-SA5C-SB-9.0-10.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-017-SA5C-SB-9.0-10.0

**LLI Sample #** SW 6162904  
**LLI Group #** 1225037  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/09/2010 10:30

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3402 SDG#: DE034-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04688	2,4-Dinitrotoluene	121-14-2	37	U 37	190		1
04688	2,6-Dinitrotoluene	606-20-2	19	U 19	190		1
04688	1,2-Diphenylhydrazine	122-66-7	19	U 19	190		1
04688	Hexachlorobenzene	118-74-1	19	U 19	190		1
04688	Hexachlorobutadiene	87-68-3	75	U 75	190		1
04688	Hexachlorocyclopentadiene	77-47-4	190	U 190	560		1
04688	Hexachloroethane	67-72-1	19	U 19	190		1
04688	Isophorone	78-59-1	19	U 19	190		1
04688	2-Methylphenol	95-48-7	37	U 37	190		1
04688	4-Methylphenol	106-44-5	37	U 37	190		1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.							
04688	2-Nitroaniline	88-74-4	19	U 19	190		1
04688	3-Nitroaniline	99-09-2	37	U 37	190		1
04688	4-Nitroaniline	100-01-6	75	U 75	190		1
04688	Nitrobenzene	98-95-3	19	U 19	190		1
04688	2-Nitrophenol	88-75-5	19	U 19	190		1
04688	4-Nitrophenol	100-02-7	190	U 190	560		1
04688	N-Nitroso-di-n-propylamine	621-64-7	19	U 19	190		1
04688	N-Nitrosodiphenylamine	86-30-6	19	U 19	190		1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.							
04688	Pentachlorophenol	87-86-5	190	U 190	560		1
04688	Phenol	108-95-2	19	U 19	190		1
04688	1,2,4-Trichlorobenzene	120-82-1	19	U 19	190		1
04688	2,4,5-Trichlorophenol	95-95-4	37	U 37	190		1
04688	2,4,6-Trichlorophenol	88-06-2	37	U 37	190		1
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C SIM</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10138	Acenaphthene	83-32-9	0.75	U 0.75	1.9		1
10138	Acenaphthylene	208-96-8	0.37	U 0.37	1.9		1
10138	Anthracene	120-12-7	0.37	U 0.37	1.9		1
10138	Benzo(a)anthracene	56-55-3	0.75	U 0.75	1.9		1
10138	Benzo(a)pyrene	50-32-8	0.75	U 0.75	1.9		1
10138	Benzo(b)fluoranthene	205-99-2	0.75	U 0.75	1.9		1
10138	Benzo(g,h,i)perylene	191-24-2	0.75	U 0.75	1.9		1
10138	Benzo(k)fluoranthene	207-08-9	0.75	U 0.75	1.9		1
10138	Butylbenzylphthalate	85-68-7	6.7	U 6.7	20		1
10138	Di-n-butylphthalate	84-74-2	6.7	U 6.7	20		1
10138	Chrysene	218-01-9	0.37	U 0.37	1.9		1
10138	Dibenz(a,h)anthracene	53-70-3	0.75	U 0.75	1.9		1
10138	Diethylphthalate	84-66-2	6.7	U 6.7	20		1
10138	Dimethylphthalate	131-11-3	6.7	U 6.7	20		1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	7.1	J 6.7	20		1
10138	Fluoranthene	206-44-0	0.75	U 0.75	1.9		1
10138	Fluorene	86-73-7	0.75	U 0.75	1.9		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.75	U 0.75	1.9		1

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**Sample Description:** SL-017-SA5C-SB-9.0-10.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-017-SA5C-SB-9.0-10.0

**LLI Sample #** SW 6162904  
**LLI Group #** 1225037  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/09/2010 10:30

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3402 SDG#: DE034-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS Semivolatiles SW-846 8270C SIM</b>							
10138	1-Methylnaphthalene	90-12-0	0.75 U	0.75	1.9	ug/kg	1
10138	2-Methylnaphthalene	91-57-6	0.75 U	0.75	1.9	ug/kg	1
10138	Naphthalene	91-20-3	0.75 U	0.75	1.9	ug/kg	1
10138	N-Nitrosodimethylamine	62-75-9	0.75 U	0.75	1.9	ug/kg	1
10138	Di-n-octylphthalate	117-84-0	6.9 J	6.7	20	ug/kg	1
10138	Phenanthrene	85-01-8	0.75 U	0.75	1.9	ug/kg	1
10138	Pyrene	129-00-0	0.75 U	0.75	1.9	ug/kg	1
<b>GC Volatiles TPH GRO SW-846 8015B mod</b>							
05551	9a TPH by EPA 8015B Gas C5-C12	n.a.	0.2 U	0.2	0.9	mg/kg	21.15
<b>Explosives SW-846 8330A</b>							
10132	4-Amino-2,6-Dinitrotoluene	19406-51-0	84 U	84	170	1000000	1
10132	2-Amino-4,6-Dinitrotoluene	35572-78-2	56 U	56	170	1000000	1
10132	2,6-Diamino-4-nitrotoluene	59229-75-3	110 U	110	340	1000000	1
10132	2,4-Diamino-6-nitrotoluene	6629-29-4	110 U	110	340	1000000	1
10132	1,3-Dinitrobenzene	99-65-0	56 U	56	170	1000000	1
10132	2,4-Dinitrotoluene	121-14-2	56 U	56	170	1000000	1
10132	2,6-Dinitrotoluene	606-20-2	56 U	56	170	1000000	1
10132	HMX	2691-41-0	140 U	140	420	1000000	1
10132	Nitrobenzene	98-95-3	56 U	56	170	1000000	1
10132	Nitroglycerin	55-63-0	1,100 U	1,100	3,400	1000000	1
10132	2-Nitrotoluene	88-72-2	110 U	110	170	1000000	1
10132	3-Nitrotoluene	99-08-1	140 U	140	170	1000000	1
10132	4-Nitrotoluene	99-99-0	110 U	110	170	1000000	1
10132	PETN	78-11-5	1,100 U	1,100	3,400	1000000	1
10132	RDX	121-82-4	70 U	70	170	1000000	1
10132	Tetryl	479-45-8	86 U	86	170	1000000	1
10132	1,3,5-Trinitrobenzene	99-35-4	56 U	56	170	1000000	1
10132	2,4,6-Trinitrotoluene	118-96-7	56 U	56	170	1000000	1

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 SL-017-SA5C-SB-9.0-10.0

LLI Sample # SW 6162904  
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E3402 SDG#: DE034-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method	Dry Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>HPLC Organics</b>								
	<b>SW-846 8315A</b>		<b>ug/kg</b>		<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04173	17a Formaldehyde by 8315A	50-00-0	3,500		670	1,700		1
<b>Pesticides/PCBs</b>								
	<b>SW-846 8082</b>		<b>ug/kg</b>		<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10225	Aroclor 5432	63496-31-1	1.1 U		1.1	3.7		1
10225	Aroclor 5442	12642-23-8	1.1 U		1.1	3.7		1
10225	Aroclor 5460	11126-42-4	1.1 U		1.1	3.7		1
10225	PCB-1016	12674-11-2	0.37 U		0.37	1.9		1
10225	PCB-1221	11104-28-2	0.56 U		0.56	1.9		1
10225	PCB-1232	11141-16-5	0.58 U		0.58	1.9		1
10225	PCB-1242	53469-21-9	0.56 U		0.56	1.9		1
10225	PCB-1248	12672-29-6	0.37 U		0.37	1.9		1
10225	PCB-1254	11097-69-1	0.37 U		0.37	1.9		1
10225	PCB-1260	11096-82-5	0.37 U		0.37	1.9		1
10225	PCB-1262	37324-23-5	0.37 U		0.37	1.9		1
10225	PCB-1268	11100-14-4	0.37 U		0.37	1.9		1
The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.								
<b>GC Extractable TPH</b>								
	<b>SW-846 8015B modified</b>		<b>mg/kg</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
10199	EFH (C12-C14)	n.a.	0.45 U		0.45	1.3		1
10199	EFH (C15-C20)	n.a.	0.45 U		0.45	1.3		1
10199	EFH (C21-C30)	n.a.	1.7		0.45	1.3		1
10199	EFH (C30 - C40)	n.a.	5.4		0.45	1.3		1
10199	EFH (C8-C11)	n.a.	0.45 U		0.45	1.3		1
<b>GC Miscellaneous</b>								
	<b>SW-846 8015B</b>		<b>ug/kg</b>		<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10501	Ethanol	64-17-5	230 J		110	560		1
10501	Isopropanol	67-63-0	110 U		110	560		1
10501	Methanol	67-56-1	110 U		110	560		1
<b>GC Miscellaneous</b>								
	<b>SW-846 8015B modified</b>		<b>mg/kg</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
08283	Diethylene glycol	111-46-6	5.6 U		5.6	14		1
08283	Ethylene glycol	107-21-1	5.6 U		5.6	14		1
08283	Propylene glycol	57-55-6	5.6 U		5.6	14		1
The sample was injected numerous times. Each time the responses for various analytes in the calibration check standard injected after the sample were outside the acceptance criteria. Therefore, this effect is attributed to the sample matrix and the data is reported.								
<b>Terphenyls</b>								
	<b>SW-846 8015B</b>		<b>mg/kg</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
10318	m-Terphenyl	92-06-8	1.7 U		1.7	3.9		1
10318	o-Terphenyl	84-15-1	1.7 U		1.7	3.9		1
10318	p-Terphenyl	92-94-4	1.7 U		1.7	3.9		1
<b>Metals</b>								
	<b>SW-846 6010B</b>		<b>mg/kg</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	

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 SSFL Area IV Collocated Soil Sampling  
 SL-017-SA5C-SB-9.0-10.0

LLI Sample # SW 6162904  
 LLI Group # 1225037  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

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E3402 SDG#: DE034-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Metals</b>							
	<b>SW-846 6010B</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
01643	Aluminum	7429-90-5	14,300	5.46	21.7		1
07914	Boron	7440-42-8	8.45	0.967	5.43		1
01650	Calcium	7440-70-2	1,780	6.66	21.7		1
01654	Iron	7439-89-6	17,900	5.12	21.7		1
01656	Lithium	7439-93-2	22.2	0.24	2.2		1
01657	Magnesium	7439-95-4	3,640	2.76	10.9		1
06958	Manganese	7439-96-5	174	0.0847	0.543		1
10145	Phosphorus	7723-14-0	98.7	0.608	10.9		1
01662	Potassium	7440-09-7	1,700	19.5	54.3		1
01667	Sodium	7440-23-5	125	40.5	109		1
07968	Strontium	7440-24-6	18.0	0.0673	0.543		1
06969	Tin	7440-31-5	2.56 J	1.09	10.9		1
06970	Titanium	7440-32-6	1,300	0.413	1.09		1
10146	Zirconium	7440-67-7	1.55 J	0.912	5.43		1
	<b>SW-846 6020</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
06124	Antimony	7440-36-0	0.0658 U	0.0658	0.219		2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	5.44	0.0658	0.439		2
06126	Barium	7440-39-3	90.9	0.118	0.439		2
06127	Beryllium	7440-41-7	0.815	0.0175	0.110		2
06128	Cadmium	7440-43-9	0.0750 J	0.0395	0.110		2
06131	Chromium	7440-47-3	15.8	0.132	0.439		2
06132	Cobalt	7440-48-4	12.6	0.0219	0.110		2
06133	Copper	7440-50-8	6.98	0.0724	0.439		2
06135	Lead	7439-92-1	5.87	0.0114	0.219		2
06138	Molybdenum	7439-98-7	0.466	0.0548	0.110		2
06139	Nickel	7440-02-0	12.1	0.110	0.439		2
06141	Selenium	7782-49-2	0.0439 J	0.0439	0.439		2
06142	Silver	7440-22-4	0.0371 J	0.0132	0.110		2
06145	Thallium	7440-28-0	0.291	0.0329	0.110		2
06148	Vanadium	7440-62-2	31.8	0.0241	0.110		2
06149	Zinc	7440-66-6	55.8	0.614	3.29		2
	<b>SW-846 7471A</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
00159	Mercury	7439-97-6	0.0031 U	0.0031	0.108		1
<b>Wet Chemistry</b>							
	<b>EPA 300.0</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	6.2	0.89	1.1		1
07336	11a Anions by 300.0 - Nitrate	14797-55-8	0.96 J	0.89	1.7		1
	<b>EPA 314.0</b>		<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10147	7a Perchlorate EPA 314.0	14797-73-0	10.1 U	10.1	33.6		1
	<b>SW-846 7199</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
05892	3a Cr VI by EPA 7199	18540-29-9	0.22 U	0.22	1.1		1

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**Sample Description:** SL-017-SA5C-SB-9.0-10.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-017-SA5C-SB-9.0-10.0

**LLI Sample #** SW 6162904  
**LLI Group #** 1225037  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/09/2010 10:30

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E3402 SDG#: DE034-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Wet Chemistry</b>							
		<b>SW-846 9012B</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
05895	21a Cyanide by 9012B	57-12-5	0.20 U	0.20	0.55		1
		<b>ASTM D1498</b>	<b>mV</b>	<b>mV</b>	<b>mV</b>	<b>mV</b>	
01821	Oxidation Reduction Potential	n.a.	478	10.0	10.0		1
	The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.						
		<b>SW-846 9045C modified</b>	<b>Std. Units</b>	<b>Std. Units</b>	<b>Std. Units</b>	<b>Std. Units</b>	
00394	22a pH by 9045C	n.a.	8.04	0.0100	0.0100		1
<b>Wet Chemistry</b>							
		<b>EPA 160.3 modified</b>	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>	
11624	28a Moisture Content by 160.3	n.a.	10.6	0.50	0.50		1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

### General Sample Comments

State of California Lab Certification No. 2501  
 The volatile analysis was performed on soil from SL-017-SA5C-SB-9.5.  
 The VOA, GRO, and 1,4-Dioxane containers were submitted to the laboratory on 12/10/10 at 09:15.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06192	1a Volatile Organics EPA 8260B	SW-846 8260B	1	B103482AA	12/15/2010 00:13	Laura M Krieger	0.91
10326	14a 1,4-Dioxane by 8260B SIM	SW-846 8260B SIM	1	E103493AA	12/15/2010 23:50	Sara E Johnson	30.56
08390	GC/MS - HL Encore Prep	SW-846 5035	1	201034723287	12/10/2010 20:24	Christopher D Meeks	n.a.
07320	GC/MS - LL DIH20 Encore Prep	SW-846 5035	1	201034723287	12/13/2010 15:50	Christopher D Meeks	n.a.
07320	GC/MS - LL DIH20 Encore Prep	SW-846 5035	2	201034723287	12/13/2010 15:50	Christopher D Meeks	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035	1	201034723287	12/10/2010 20:25	Christopher D Meeks	n.a.
11622	19a NDMA by 1625C	EPA 1625C	1	10349SLE026	12/24/2010 19:24	Timothy J Trees	1
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10349SLJ026	01/04/2011 14:18	Brian K Graham	1

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### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10349SLG026	12/29/2010 05:03	Gregory J Drahovsky	1
11630	NDMA Soil Microwave	SW-846 3546	1	10349SLE026	12/16/2010 03:00	Sherry L Morrow	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10349SLG026	12/16/2010 07:00	Joseph S Feister	1
00381	BNA Soil Sonication	SW-846 3550B	1	10349SLJ026	12/16/2010 07:00	Kerrie A Freeburn	1
05551	9a TPH by EPA 8015B Gas C5-C12	TPH GRO SW-846 8015B mod	1	10348A34A	12/15/2010 11:30	Marie D John	21.15
06130	GC - 5 g HL Encore Prep	SW-846 5035	1	201034723287	12/10/2010 20:26	Christopher D Meeks	n.a.
10132	20a Energetics by 8330A	SW-846 8330A	1	103480012A	12/16/2010 21:39	Michele D Hamilton	1
04173	17a Formaldehyde by 8315A	SW-846 8315A	1	103480007A	12/16/2010 01:10	Michele D Hamilton	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	103500025A	12/21/2010 09:50	Lindsey K Lafferty	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	103500025A	12/17/2010 00:40	Roman Kuropatkin	1
05876	Formaldehyde Solid Extraction	SW-846 8315A	1	103480007A	12/14/2010 15:00	Kelli M Barto	1
11137	Energetics Extraction	SW-846 8330	1	103480012A	12/14/2010 14:45	Wanda F Oswald	1
10199	9a TPH by EPA 8015B Oil/Diesel	SW-846 8015B modified	1	103470024A	12/17/2010 04:52	Heather E Williams	1
10501	25a Alcohols by 8015B	SW-846 8015B	1	103480003A	12/15/2010 17:52	Dustin A Underkoffler	1
08283	27a Glycols by 8015B	SW-846 8015B modified	1	103480019A	12/16/2010 20:49	Robert Brown	1
10318	26a Terphenyls by 8015B	SW-846 8015B	1	103550026A	12/23/2010 04:18	Heather E Williams	1
11238	EFH Extraction - Soils	SW-846 3550B	1	103470024A	12/14/2010 08:00	Joseph S Feister	1
10303	Terphenyls soil prep	SW-846 3550B	1	103550026A	12/22/2010 07:00	Kerrie A Freeburn	1
11551	Direct Inj. Solids Glycol Ext.	SW-846 8015B	1	103480019A	12/15/2010 12:00	Dustin A Underkoffler	1
00380	Direct Injection Solids Ext	SW-846 8015B	1	103480003A	12/15/2010 12:00	Dustin A Underkoffler	1
01643	Aluminum	SW-846 6010B	1	103495708003	12/17/2010 23:31	John W Yanzuk II	1
07914	Boron	SW-846 6010B	1	103495708003	12/17/2010 23:31	John W Yanzuk II	1
01650	Calcium	SW-846 6010B	1	103495708003	12/17/2010 23:31	John W Yanzuk II	1
01654	Iron	SW-846 6010B	1	103495708003	12/17/2010 23:31	John W Yanzuk II	1
01656	Lithium	SW-846 6010B	1	103495708003	12/17/2010 23:31	John W Yanzuk II	1
01657	Magnesium	SW-846 6010B	1	103495708003	12/17/2010 23:31	John W Yanzuk II	1
06958	Manganese	SW-846 6010B	1	103495708003	12/17/2010 23:31	John W Yanzuk II	1
10145	Phosphorus	SW-846 6010B	1	103495708003	12/17/2010 23:31	John W Yanzuk II	1
01662	Potassium	SW-846 6010B	1	103495708003	12/17/2010 23:31	John W Yanzuk II	1
01667	Sodium	SW-846 6010B	1	103495708003	12/17/2010 23:31	John W Yanzuk II	1
07968	Strontium	SW-846 6010B	1	103495708003	12/17/2010 23:31	John W Yanzuk II	1
06969	Tin	SW-846 6010B	1	103495708003	12/17/2010 23:31	John W Yanzuk II	1
06970	Titanium	SW-846 6010B	1	103545708005	12/21/2010 20:01	John P Hook	1
10146	Zirconium	SW-846 6010B	1	103495708003	12/17/2010 23:31	John W Yanzuk II	1
06124	Antimony	SW-846 6020	1	103491026003A	12/23/2010 14:57	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103491026003A	12/23/2010 14:57	Choon Y Tian	2

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**Sample Description:** SL-017-SA5C-SB-9.0-10.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-017-SA5C-SB-9.0-10.0

**LLI Sample #** SW 6162904  
**LLI Group #** 1225037  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

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E3402 SDG#: DE034-02

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
06126	Barium	SW-846 6020	1	103491026003D	12/23/2010	14:57	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103491026003A	12/23/2010	14:57	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103491026003A	12/23/2010	14:57	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103491026003A	12/23/2010	14:57	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103491026003A	12/23/2010	14:57	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103491026003A	12/23/2010	14:57	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103491026003A	12/23/2010	14:57	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103491026003C	12/23/2010	14:57	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103491026003A	12/23/2010	14:57	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103491026003B	12/23/2010	14:57	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103491026003A	12/23/2010	14:57	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103491026003A	12/23/2010	14:57	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103491026003A	12/26/2010	06:40	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	103491026003A	12/23/2010	14:57	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	103495711003	12/20/2010	05:09	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	103495708003	12/16/2010	07:00	Denise K Connors	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	103545708005	12/20/2010	20:07	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103491026003	12/16/2010	07:35	Denise K Connors	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	103495711003	12/16/2010	08:55	Denise K Connors	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10361361201A	12/29/2010	08:32	Ashley M Adams	1
07336	11a Anions by 300.0 - Nitrate	EPA 300.0	1	10361361201A	12/29/2010	08:32	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10356356201A	12/27/2010	19:26	Ashley M Adams	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	10359243202A	12/30/2010	17:22	Ashley M Adams	1
05895	21a Cyanide by 9012B	SW-846 9012B	1	10357102201A	12/23/2010	19:52	Joseph E McKenzie	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10361361201A	12/27/2010	14:40	Nancy J Shoop	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10356356201A	12/22/2010	11:15	Nancy J Shoop	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	10357102201A	12/23/2010	15:10	Carolyn M Mastropietro	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10348182102A	12/14/2010	10:45	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10348039402A	12/14/2010	10:45	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10359243202A	12/25/2010	22:10	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	1	10357162401A	12/23/2010	21:06	Scott W Freisher	1

\*—This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-008-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-008-SA5B-SS-0.0-0.5

LLI Sample # SW 6162905  
 LLI Group # 1225037  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 08:22

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3403 SDG#: DE034-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04688	Aniline	62-53-3	170	U 170	520		1
04688	Benzidine	92-87-5	1,200	U 1,200	3,500		1
04688	Benzo(a)pyrene	50-32-8	22	J 17	170		1
04688	Benzoic acid	65-85-0	170	U 170	520		1
04688	Benzyl alcohol	100-51-6	170	U 170	520		1
04688	4-Bromophenyl-phenylether	101-55-3	17	U 17	170		1
04688	Carbazole	86-74-8	17	U 17	170		1
04688	4-Chloro-3-methylphenol	59-50-7	35	U 35	170		1
04688	4-Chloroaniline	106-47-8	69	U 69	170		1
04688	bis(2-Chloroethoxy)methane	111-91-1	17	U 17	170		1
04688	bis(2-Chloroethyl)ether	111-44-4	17	U 17	170		1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	17	U 17	170		1
04688	2-Chloronaphthalene	91-58-7	17	U 17	170		1
04688	2-Chlorophenol	95-57-8	17	U 17	170		1
04688	4-Chlorophenyl-phenylether	7005-72-3	35	U 35	170		1
04688	Dibenzofuran	132-64-9	17	U 17	170		1
04688	1,2-Dichlorobenzene	95-50-1	17	U 17	170		1
04688	1,3-Dichlorobenzene	541-73-1	17	U 17	170		1
04688	1,4-Dichlorobenzene	106-46-7	17	U 17	170		1
04688	3,3'-Dichlorobenzidine	91-94-1	100	U 100	350		1
04688	2,4-Dichlorophenol	120-83-2	17	U 17	170		1
04688	2,4-Dimethylphenol	105-67-9	35	U 35	170		1
04688	3,5-Dimethylphenol	108-68-9	35	U 35	170		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	170	U 170	520		1
04688	2,4-Dinitrophenol	51-28-5	690	U 690	2,100		1
04688	2,4-Dinitrotoluene	121-14-2	35	U 35	170		1
04688	2,6-Dinitrotoluene	606-20-2	17	U 17	170		1
04688	1,2-Diphenylhydrazine	122-66-7	17	U 17	170		1
04688	Hexachlorobenzene	118-74-1	17	U 17	170		1
04688	Hexachlorobutadiene	87-68-3	69	U 69	170		1
04688	Hexachlorocyclopentadiene	77-47-4	170	U 170	520		1
04688	Hexachloroethane	67-72-1	17	U 17	170		1
04688	Isophorone	78-59-1	17	U 17	170		1
04688	2-Methylphenol	95-48-7	35	U 35	170		1
04688	4-Methylphenol	106-44-5	35	U 35	170		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	17	U 17	170		1
04688	3-Nitroaniline	99-09-2	35	U 35	170		1
04688	4-Nitroaniline	100-01-6	69	U 69	170		1
04688	Nitrobenzene	98-95-3	17	U 17	170		1
04688	2-Nitrophenol	88-75-5	17	U 17	170		1
04688	4-Nitrophenol	100-02-7	170	U 170	520		1
04688	N-Nitroso-di-n-propylamine	621-64-7	17	U 17	170		1
04688	N-Nitrosodiphenylamine	86-30-6	17	U 17	170		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	170	U 170	520		1

\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-008-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-008-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162905  
**LLI Group #** 1225037  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 08:22

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3403 SDG#: DE034-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04688	Phenol	108-95-2	17	U 17	170		1
04688	1,2,4-Trichlorobenzene	120-82-1	17	U 17	170		1
04688	2,4,5-Trichlorophenol	95-95-4	35	U 35	170		1
04688	2,4,6-Trichlorophenol	88-06-2	35	U 35	170		1
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C SIM</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10138	Acenaphthene	83-32-9	1.5	J 0.69	1.7		1
10138	Acenaphthylene	208-96-8	0.35	U 0.35	1.7		1
10138	Anthracene	120-12-7	6.4	U 0.35	1.7		1
10138	Benzo(a)anthracene	56-55-3	19	U 0.69	1.7		1
10138	Benzo(b)fluoranthene	205-99-2	21	U 0.69	1.7		1
10138	Benzo(g,h,i)perylene	191-24-2	3.5	U 0.69	1.7		1
10138	Benzo(k)fluoranthene	207-08-9	11	U 0.69	1.7		1
10138	Butylbenzylphthalate	85-68-7	6.2	U 6.2	19		1
10138	Di-n-butylphthalate	84-74-2	6.2	U 6.2	19		1
10138	Chrysene	218-01-9	18	U 0.35	1.7		1
10138	Dibenz(a,h)anthracene	53-70-3	0.83	J 0.69	1.7		1
10138	Diethylphthalate	84-66-2	6.2	U 6.2	19		1
10138	Dimethylphthalate	131-11-3	6.2	U 6.2	19		1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	11	J 6.2	19		1
10138	Fluoranthene	206-44-0	50	U 0.69	1.7		1
10138	Fluorene	86-73-7	1.6	J 0.69	1.7		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	2.7	U 0.69	1.7		1
10138	1-Methylnaphthalene	90-12-0	0.69	U 0.69	1.7		1
10138	2-Methylnaphthalene	91-57-6	0.69	U 0.69	1.7		1
10138	Naphthalene	91-20-3	0.69	U 0.69	1.7		1
10138	N-Nitrosodimethylamine	62-75-9	0.69	U 0.69	1.7		1
10138	Di-n-octylphthalate	117-84-0	6.2	U 6.2	19		1
10138	Phenanthrene	85-01-8	20	U 0.69	1.7		1
10138	Pyrene	129-00-0	37	U 0.69	1.7		1
<b>Herbicides</b>	<b>SW-846 8151A</b>		<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10401	2,4-D	94-75-7	1.2	U 1.2	3.7		1
10401	Dalapon	75-99-0	4.6	U 4.6	9.3		1
10401	2,4-DB	94-82-6	0.64	U 0.64	1.8		1
10401	Dicamba	1918-00-9	0.41	U 0.41	1.2		1
10401	Dinoseb	88-85-7	0.83	U 0.83	2.5		1
10401	2,4-DP (Dichlorprop)	120-36-5	0.83	U 0.83	1.8		1
10401	MCPA	94-74-6	79	U 79	260		1
10401	MCPP (Mecoprop)	93-65-2	78	U 78	260		1
10401	2,4,5-T	93-76-5	0.36	U 0.36	0.36		1
10401	2,4,5-TP	93-72-1	0.078	U 0.078	0.18		1

The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported.

Due to interfering peaks on the chromatogram, the values reported represent the lowest reporting limits attainable.

Despite numerous cleanup methods, our usual reporting limits were not

\*=This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-008-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-008-SA5B-SS-0.0-0.5

LLI Sample # SW 6162905  
 LLI Group # 1225037  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 08:22

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3403 SDG#: DE034-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
attained.							
<b>Pesticides/PCBs SW-846 8081A</b>							
01363	Aldrin	309-00-2	0.068 U	0.068	0.17		1
01363	Alpha BHC	319-84-6	0.035 U	0.035	0.17		1
01363	Beta BHC	319-85-7	0.062 U	0.062	0.17		1
01363	Gamma BHC - Lindane	58-89-9	0.12 U	0.12	0.17		1
01363	Chlordane	57-74-9	1.9 U	1.9	3.5		1
01363	p,p-DDD	72-54-8	0.52 U	0.52	0.52		1
01363	p,p-DDE	72-55-9	0.088 U	0.088	0.35		1
01363	p,p-DDT	50-29-3	0.19 U	0.19	0.35		1
01363	Delta BHC	319-86-8	0.064 J	0.037	0.17		1
01363	Dieldrin	60-57-1	0.068 U	0.068	0.35		1
01363	Endosulfan I	959-98-8	0.046 U	0.046	0.17		1
01363	Endosulfan II	33213-65-9	0.068 U	0.068	0.35		1
01363	Endosulfan Sulfate	1031-07-8	0.22 U	0.22	0.35		1
01363	Endrin	72-20-8	0.068 U	0.068	0.35		1
01363	Endrin Aldehyde	7421-93-4	0.091 U	0.091	0.35		1
01363	Endrin Ketone	53494-70-5	0.068 U	0.068	0.35		1
01363	Heptachlor	76-44-8	0.062 U	0.062	0.17		1
01363	Heptachlor Epoxide	1024-57-3	0.048 U	0.048	0.17		1
01363	Methoxychlor	72-43-5	0.35 U	0.35	1.7		1
01363	Mirex	2385-85-5	0.49 U	0.49	0.49		1
01363	Toxaphene	8001-35-2	2.3 U	2.3	6.8		1

Various analytes in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported.

Due to interfering peaks on the chromatogram from the presence of PCBs, the values reported represent the lowest reporting limits attainable. Despite numerous cleanup methods, our usual reporting limits were not attained.

<b>Pesticides/PCBs SW-846 8082</b>							
			ug/kg	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.4		1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.4		1
10225	Aroclor 5460	11126-42-4	1.0 U	1.0	3.4		1
10225	PCB-1016	12674-11-2	0.34 U	0.34	1.8		1
10225	PCB-1221	11104-28-2	0.52 U	0.52	1.8		1
10225	PCB-1232	11141-16-5	0.54 U	0.54	1.8		1
10225	PCB-1242	53469-21-9	0.52 U	0.52	1.8		1
10225	PCB-1248	12672-29-6	0.34 U	0.34	1.8		1
10225	PCB-1254	11097-69-1	1.5 J	0.34	1.8		1
10225	PCB-1260	11096-82-5	0.34 U	0.34	1.8		1
10225	PCB-1262	37324-23-5	0.34 U	0.34	1.8		1
10225	PCB-1268	11100-14-4	0.34 U	0.34	1.8		1

The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.

<b>Metals SW-846 6010B</b>							
			mg/kg	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	8,750	5.11	20.3		1
07914	Boron	7440-42-8	8.55	0.904	5.08		1
01650	Calcium	7440-70-2	41,500	6.23	20.3		1
01654	Iron	7439-89-6	14,700	4.79	20.3		1

\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-008-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-008-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162905  
**LLI Group #** 1225037  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 08:22

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3403 SDG#: DE034-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Metals</b>							
<b>SW-846 6010B</b>			<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
01656	Lithium	7439-93-2	12.6	0.22	2.0		1
01657	Magnesium	7439-95-4	4,240	2.58	10.2		1
06958	Manganese	7439-96-5	219	0.0792	0.508		1
10145	Phosphorus	7723-14-0	529	0.569	10.2		1
01662	Potassium	7440-09-7	2,290	18.3	50.8		1
01667	Sodium	7440-23-5	293	37.9	102		1
07968	Strontium	7440-24-6	270	0.0630	0.508		1
06969	Tin	7440-31-5	1.59 J	1.02	10.2		1
06970	Titanium	7440-32-6	1,140	0.394	1.04		1
10146	Zirconium	7440-67-7	1.35 J	0.853	5.08		1
<b>SW-846 6020</b>			<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
06124	Antimony	7440-36-0	0.149 J	0.0622	0.207		2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.							
06125	Arsenic	7440-38-2	4.34	0.0622	0.415		2
06126	Barium	7440-39-3	100	0.112	0.415		2
06127	Beryllium	7440-41-7	0.285	0.0166	0.104		2
06128	Cadmium	7440-43-9	0.179	0.0373	0.104		2
06131	Chromium	7440-47-3	16.0	0.124	0.415		2
06132	Cobalt	7440-48-4	5.33	0.0207	0.104		2
06133	Copper	7440-50-8	11.2	0.0684	0.415		2
06135	Lead	7439-92-1	5.13	0.0108	0.207		2
06138	Molybdenum	7439-98-7	0.815	0.0518	0.104		2
06139	Nickel	7440-02-0	9.28	0.104	0.415		2
06141	Selenium	7782-49-2	0.127 J	0.0415	0.415		2
06142	Silver	7440-22-4	0.0612 J	0.0124	0.104		2
06145	Thallium	7440-28-0	0.173	0.0311	0.104		2
06148	Vanadium	7440-62-2	25.9	0.0228	0.104		2
06149	Zinc	7440-66-6	78.5	0.580	3.11		2
<b>SW-846 7471A</b>			<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
00159	Mercury	7439-97-6	0.0126 J	0.0028	0.0969		1
<b>Wet Chemistry</b>							
<b>EPA 300.0</b>			<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.5	0.83	1.0		1
<b>EPA 314.0</b>			<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.3 U	9.3	31.1		1
<b>SW-846 7199</b>			<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
05892	3a Cr VI by EPA 7199	18540-29-9	0.21 U	0.21	1.0		1
<b>ASTM D1498</b>			<b>mV</b>	<b>mV</b>	<b>mV</b>	<b>mV</b>	
01821	Oxidation Reduction Potential	n.a.	430	10.0	10.0		1

\*-This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-008-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-008-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162905  
**LLI Group #** 1225037  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 08:22

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3403 SDG#: DE034-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Wet Chemistry</b>		<b>ASTM D1498</b>	mV	mV	mV	mV	
The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.							
<b>SW-846 9045C modified</b>			Std. Units	Std. Units	Std. Units	Std. Units	
00394	22a pH by 9045C	n.a.	8.10	0.0100	0.0100		1
<b>Wet Chemistry</b>		<b>EPA 160.3 modified</b>	%	%	%	%	
11624	28a Moisture Content by 160.3	n.a.	3.5	0.50	0.50		1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.							

### General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10349SLJ026	01/04/2011 14:44	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10349SLG026	12/29/2010 05:37	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10349SLG026	12/16/2010 07:00	Joseph S Feister	1
00381	BNA Soil Sonication	SW-846 3550B	1	10349SLJ026	12/16/2010 07:00	Kerrie A Freeburn	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	103490015A	12/18/2010 03:31	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	103500011A	12/23/2010 21:21	Jamie L Brillhart	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	103500025A	12/21/2010 10:09	Lindsey K Lafferty	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	2	103500011A	12/16/2010 16:50	JoElla L Rice	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	103500025A	12/17/2010 00:40	Roman Kuropatkin	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	103490015A	12/16/2010 02:10	Roman Kuropatkin	1
01643	Aluminum	SW-846 6010B	1	103495708003	12/17/2010 22:56	John W Yanzuk II	1
07914	Boron	SW-846 6010B	1	103495708003	12/17/2010 22:56	John W Yanzuk II	1
01650	Calcium	SW-846 6010B	1	103495708003	12/17/2010 22:56	John W Yanzuk II	1
01654	Iron	SW-846 6010B	1	103495708003	12/17/2010 22:56	John W Yanzuk II	1
01656	Lithium	SW-846 6010B	1	103495708003	12/17/2010 22:56	John W Yanzuk II	1
01657	Magnesium	SW-846 6010B	1	103495708003	12/17/2010 22:56	John W Yanzuk II	1

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 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-008-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-008-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162905  
**LLI Group #** 1225037  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 08:22

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3403 SDG#: DE034-03

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
06958	Manganese	SW-846 6010B	1	103495708003	12/17/2010	22:56	John W Yanzuk II	1
10145	Phosphorus	SW-846 6010B	1	103495708003	12/17/2010	22:56	John W Yanzuk II	1
01662	Potassium	SW-846 6010B	1	103495708003	12/17/2010	22:56	John W Yanzuk II	1
01667	Sodium	SW-846 6010B	1	103495708003	12/17/2010	22:56	John W Yanzuk II	1
07968	Strontium	SW-846 6010B	1	103495708003	12/17/2010	22:56	John W Yanzuk II	1
06969	Tin	SW-846 6010B	1	103495708003	12/17/2010	22:56	John W Yanzuk II	1
06970	Titanium	SW-846 6010B	1	103545708005	12/21/2010	20:11	John P Hook	1
10146	Zirconium	SW-846 6010B	1	103495708003	12/17/2010	22:56	John W Yanzuk II	1
06124	Antimony	SW-846 6020	1	103491026003A	12/23/2010	14:35	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103491026003A	12/23/2010	14:35	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103491026003D	12/23/2010	14:35	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103491026003A	12/23/2010	14:35	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103491026003A	12/23/2010	14:35	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103491026003A	12/23/2010	14:35	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103491026003A	12/23/2010	14:35	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103491026003A	12/23/2010	14:35	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103491026003A	12/23/2010	14:35	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103491026003C	12/23/2010	14:35	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103491026003A	12/23/2010	14:35	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103491026003B	12/23/2010	14:35	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103491026003A	12/23/2010	14:35	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103491026003A	12/23/2010	14:35	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103491026003A	12/26/2010	06:24	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	103491026003A	12/23/2010	14:35	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	103495711003	12/20/2010	05:10	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	103495708003	12/16/2010	07:00	Denise K Connors	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	103545708005	12/20/2010	20:07	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103491026003	12/16/2010	07:35	Denise K Connors	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	103495711003	12/16/2010	08:55	Denise K Connors	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10361361201A	12/29/2010	11:09	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10356356201A	12/27/2010	19:51	Ashley M Adams	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	10359243202A	12/30/2010	17:38	Ashley M Adams	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10361361201A	12/27/2010	14:40	Nancy J Shoop	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10356356201A	12/22/2010	11:15	Nancy J Shoop	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10348182102A	12/14/2010	10:45	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10348039402A	12/14/2010	10:45	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10359243202A	12/25/2010	22:10	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	1	10349162401A	12/15/2010	09:13	William C Schwebel	1

\*—This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-009-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-009-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162906  
**LLI Group #** 1225037  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 08:25

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3404 SDG#: DE034-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04688	Aniline	62-53-3	180	U 180	540		1
04688	Benzidine	92-87-5	1,200	U 1,200	3,600		1
04688	Benzoic acid	65-85-0	180	U 180	540		1
04688	Benzyl alcohol	100-51-6	180	U 180	540		1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180		1
04688	Carbazole	86-74-8	18	U 18	180		1
04688	4-Chloro-3-methylphenol	59-50-7	36	U 36	180		1
04688	4-Chloroaniline	106-47-8	71	U 71	180		1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180		1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180		1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180		1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180		1
04688	2-Chlorophenol	95-57-8	18	U 18	180		1
04688	4-Chlorophenyl-phenylether	7005-72-3	36	U 36	180		1
04688	Dibenzofuran	132-64-9	18	U 18	180		1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180		1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180		1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180		1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	360		1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180		1
04688	2,4-Dimethylphenol	105-67-9	36	U 36	180		1
04688	3,5-Dimethylphenol	108-68-9	36	U 36	180		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	540		1
04688	2,4-Dinitrophenol	51-28-5	710	U 710	2,100		1
04688	2,4-Dinitrotoluene	121-14-2	36	U 36	180		1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180		1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180		1
04688	Hexachlorobenzene	118-74-1	18	U 18	180		1
04688	Hexachlorobutadiene	87-68-3	71	U 71	180		1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	540		1
04688	Hexachloroethane	67-72-1	18	U 18	180		1
04688	Isophorone	78-59-1	18	U 18	180		1
04688	2-Methylphenol	95-48-7	36	U 36	180		1
04688	4-Methylphenol	106-44-5	36	U 36	180		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	18	U 18	180		1
04688	3-Nitroaniline	99-09-2	36	U 36	180		1
04688	4-Nitroaniline	100-01-6	71	U 71	180		1
04688	Nitrobenzene	98-95-3	18	U 18	180		1
04688	2-Nitrophenol	88-75-5	18	U 18	180		1
04688	4-Nitrophenol	100-02-7	180	U 180	540		1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180		1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	180	U 180	540		1
04688	Phenol	108-95-2	18	U 18	180		1

\*=This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-009-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-009-SA5B-SS-0.0-0.5

LLI Sample # SW 6162906  
 LLI Group # 1225037  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 08:25

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3404 SDG#: DE034-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04688	1,2,4-Trichlorobenzene	120-82-1	18	U 18	180		1
04688	2,4,5-Trichlorophenol	95-95-4	36	U 36	180		1
04688	2,4,6-Trichlorophenol	88-06-2	36	U 36	180		1
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C SIM</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10138	Acenaphthene	83-32-9	0.71	U 0.71	1.8		1
10138	Acenaphthylene	208-96-8	0.36	U 0.36	1.8		1
10138	Anthracene	120-12-7	1.2	J 0.36	1.8		1
10138	Benzo(a)anthracene	56-55-3	1.4	J 0.71	1.8		1
10138	Benzo(a)pyrene	50-32-8	1.6	J 0.71	1.8		1
10138	Benzo(b)fluoranthene	205-99-2	4.0	U 0.71	1.8		1
10138	Benzo(g,h,i)perylene	191-24-2	1.6	J 0.71	1.8		1
10138	Benzo(k)fluoranthene	207-08-9	1.7	J 0.71	1.8		1
10138	Butylbenzylphthalate	85-68-7	7.2	J 6.4	19		1
10138	Di-n-butylphthalate	84-74-2	6.4	U 6.4	19		1
10138	Chrysene	218-01-9	3.7	U 0.36	1.8		1
10138	Dibenz(a,h)anthracene	53-70-3	0.71	U 0.71	1.8		1
10138	Diethylphthalate	84-66-2	6.4	U 6.4	19		1
10138	Dimethylphthalate	131-11-3	6.4	U 6.4	19		1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	20	U 6.4	19		1
10138	Fluoranthene	206-44-0	8.0	U 0.71	1.8		1
10138	Fluorene	86-73-7	0.71	U 0.71	1.8		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.82	J 0.71	1.8		1
10138	1-Methylnaphthalene	90-12-0	0.71	U 0.71	1.8		1
10138	2-Methylnaphthalene	91-57-6	0.71	U 0.71	1.8		1
10138	Naphthalene	91-20-3	0.71	U 0.71	1.8		1
10138	N-Nitrosodimethylamine	62-75-9	0.71	U 0.71	1.8		1
10138	Di-n-octylphthalate	117-84-0	6.4	U 6.4	19		1
10138	Phenanthrene	85-01-8	2.2	U 0.71	1.8		1
10138	Pyrene	129-00-0	6.6	U 0.71	1.8		1
<b>Herbicides</b>	<b>SW-846 8151A</b>		<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10401	2,4-D	94-75-7	1.3	U 1.3	3.9		1
10401	Dalapon	75-99-0	4.7	U 4.7	9.6		1
10401	2,4-DB	94-82-6	0.66	U 0.66	1.8		1
10401	Dicamba	1918-00-9	0.43	U 0.43	1.3		1
10401	Dinoseb	88-85-7	0.86	U 0.86	2.6		1
10401	2,4-DP (Dichlorprop)	120-36-5	0.86	U 0.86	1.8		1
10401	MCPA	94-74-6	100	U 100	270		1
10401	MCPP (Mecoprop)	93-65-2	80	U 80	270		1
10401	2,4,5-T	93-76-5	0.088	U 0.088	0.18		1
10401	2,4,5-TP	93-72-1	0.080	U 0.080	0.18		1

The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported.

Due to interfering peaks on the chromatogram, the values reported represent the lowest reporting limits attainable.

Despite numerous cleanup methods, our usual reporting limits were not

\*—This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-009-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-009-SA5B-SS-0.0-0.5

LLI Sample # SW 6162906  
 LLI Group # 1225037  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 08:25

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3404 SDG#: DE034-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
attained.							
<b>Pesticides/PCBs SW-846 8081A</b>							
			ug/kg	ug/kg	ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.071 U	0.071	0.18		1
01363	Alpha BHC	319-84-6	0.036 U	0.036	0.18		1
01363	Beta BHC	319-85-7	0.064 U	0.064	0.18		1
01363	Gamma BHC - Lindane	58-89-9	0.036 U	0.036	0.18		1
01363	Chlordane	57-74-9	0.86 U	0.86	3.6		1
01363	p,p-DDD	72-54-8	0.24 U	0.24	0.36		1
01363	p,p-DDE	72-55-9	0.071 U	0.071	0.36		1
01363	p,p-DDT	50-29-3	0.23 U	0.23	0.36		1
01363	Delta BHC	319-86-8	0.039 U	0.039	0.18		1
01363	Dieldrin	60-57-1	0.071 U	0.071	0.36		1
01363	Endosulfan I	959-98-8	0.047 U	0.047	0.18		1
01363	Endosulfan II	33213-65-9	0.071 U	0.071	0.36		1
01363	Endosulfan Sulfate	1031-07-8	0.071 U	0.071	0.36		1
01363	Endrin	72-20-8	0.071 U	0.071	0.36		1
01363	Endrin Aldehyde	7421-93-4	0.071 U	0.071	0.36		1
01363	Endrin Ketone	53494-70-5	0.071 U	0.071	0.36		1
01363	Heptachlor	76-44-8	0.064 U	0.064	0.18		1
01363	Heptachlor Epoxide	1024-57-3	0.036 U	0.036	0.18		1
01363	Methoxychlor	72-43-5	0.36 U	0.36	1.8		1
01363	Mirex	2385-85-5	0.27 U	0.27	0.36		1
01363	Toxaphene	8001-35-2	2.4 U	2.4	7.1		1

Various analytes in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported.

Due to interfering peaks on the chromatogram from the presence of PCBs, the values reported represent the lowest reporting limits attainable. Despite numerous cleanup methods, our usual reporting limits were not attained.

<b>Pesticides/PCBs SW-846 8082</b>							
			ug/kg	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.5		1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.5		1
10225	Aroclor 5460	11126-42-4	3.9	1.1	3.5		1
10225	PCB-1016	12674-11-2	0.35 U	0.35	1.8		1
10225	PCB-1221	11104-28-2	0.54 U	0.54	1.8		1
10225	PCB-1232	11141-16-5	0.56 U	0.56	1.8		1
10225	PCB-1242	53469-21-9	0.54 U	0.54	1.8		1
10225	PCB-1248	12672-29-6	0.35 U	0.35	1.8		1
10225	PCB-1254	11097-69-1	0.86 J	0.35	1.8		1
10225	PCB-1260	11096-82-5	1.4 J	0.35	1.8		1
10225	PCB-1262	37324-23-5	0.35 U	0.35	1.8		1
10225	PCB-1268	11100-14-4	0.35 U	0.35	1.8		1

The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.

<b>Metals SW-846 6010B</b>							
			mg/kg	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	11,100	5.28	21.0		1
07914	Boron	7440-42-8	8.88	0.934	5.25		1
01650	Calcium	7440-70-2	7,540	6.43	21.0		1
01654	Iron	7439-89-6	16,000	4.94	21.0		1

\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-009-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-009-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162906  
**LLI Group #** 1225037  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 08:25

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3404 SDG#: DE034-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Metals</b>							
	<b>SW-846 6010B</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
01656	Lithium	7439-93-2	16.0	0.23	2.1		1
01657	Magnesium	7439-95-4	3,660	2.67	10.5		1
06958	Manganese	7439-96-5	211	0.0819	0.525		1
10145	Phosphorus	7723-14-0	428	0.588	10.5		1
01662	Potassium	7440-09-7	2,450	18.9	52.5		1
01667	Sodium	7440-23-5	287	39.2	105		1
07968	Strontium	7440-24-6	33.1	0.0651	0.525		1
06969	Tin	7440-31-5	1.92 J	1.05	10.5		1
06970	Titanium	7440-32-6	739	0.399	1.05		1
10146	Zirconium	7440-67-7	2.33 J	0.882	5.25		1
	<b>SW-846 6020</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
06124	Antimony	7440-36-0	0.0834 J	0.0636	0.212		2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	4.81	0.0636	0.424		2
06126	Barium	7440-39-3	105	0.114	0.424		2
06127	Beryllium	7440-41-7	0.458	0.0170	0.106		2
06128	Cadmium	7440-43-9	0.314	0.0382	0.106		2
06131	Chromium	7440-47-3	20.3	0.127	0.424		2
06132	Cobalt	7440-48-4	6.14	0.0212	0.106		2
06133	Copper	7440-50-8	9.04	0.0700	0.424		2
06135	Lead	7439-92-1	6.01	0.0110	0.212		2
06138	Molybdenum	7439-98-7	1.08	0.0530	0.106		2
06139	Nickel	7440-02-0	12.8	0.106	0.424		2
06141	Selenium	7782-49-2	0.223 J	0.0424	0.424		2
06142	Silver	7440-22-4	0.120	0.0127	0.106		2
06145	Thallium	7440-28-0	0.235	0.0318	0.106		2
06148	Vanadium	7440-62-2	27.7	0.0233	0.106		2
06149	Zinc	7440-66-6	72.7	0.594	3.18		2
	<b>SW-846 7471A</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
00159	Mercury	7439-97-6	0.0138 J	0.0030	0.105		1
<b>Wet Chemistry</b>							
	<b>EPA 300.0</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	0.95 J	0.86	1.1		1
	<b>EPA 314.0</b>		<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10147	7a Perchlorate EPA 314.0	14797-73-0	21.3 J	9.6	32.1		1
	<b>SW-846 7199</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
05892	3a Cr VI by EPA 7199	18540-29-9	0.74 J	0.21	1.1		1
	<b>ASTM D1498</b>		<b>mV</b>	<b>mV</b>	<b>mV</b>	<b>mV</b>	
01821	Oxidation Reduction Potential	n.a.	414	10.0	10.0		1

\*-This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-009-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-009-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162906  
**LLI Group #** 1225037  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 08:25

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3404 SDG#: DE034-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Wet Chemistry</b>		<b>ASTM D1498</b>	mV	mV	mV	mV	
The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.							
<b>SW-846 9045C modified</b>			Std. Units	Std. Units	Std. Units	Std. Units	
00394	22a pH by 9045C	n.a.	8.57	0.0100	0.0100		1
<b>Wet Chemistry</b>		<b>EPA 160.3 modified</b>	%	%	%	%	
11624	28a Moisture Content by 160.3	n.a.	6.6	0.50	0.50		1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.							

### General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10349SLJ026	01/04/2011 15:09	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10349SLG026	12/29/2010 06:10	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10349SLG026	12/16/2010 07:00	Joseph S Feister	1
00381	BNA Soil Sonication	SW-846 3550B	1	10349SLJ026	12/16/2010 07:00	Kerrie A Freeburn	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	103490015A	12/18/2010 04:54	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	103500011A	12/23/2010 21:35	Jamie L Brillhart	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	103500025A	12/21/2010 10:27	Lindsey K Lafferty	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	2	103500011A	12/16/2010 16:50	JoElla L Rice	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	103500025A	12/17/2010 00:40	Roman Kuropatkin	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	103490015A	12/16/2010 02:10	Roman Kuropatkin	1
01643	Aluminum	SW-846 6010B	1	103495708003	12/17/2010 23:34	John W Yanzuk II	1
07914	Boron	SW-846 6010B	1	103495708003	12/17/2010 23:34	John W Yanzuk II	1
01650	Calcium	SW-846 6010B	1	103495708003	12/17/2010 23:34	John W Yanzuk II	1
01654	Iron	SW-846 6010B	1	103495708003	12/17/2010 23:34	John W Yanzuk II	1
01656	Lithium	SW-846 6010B	1	103495708003	12/17/2010 23:34	John W Yanzuk II	1
01657	Magnesium	SW-846 6010B	1	103495708003	12/17/2010 23:34	John W Yanzuk II	1

\*=This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-009-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-009-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162906  
**LLI Group #** 1225037  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 08:25

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3404 SDG#: DE034-04

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
06958	Manganese	SW-846 6010B	1	103495708003	12/17/2010	23:34	John W Yanzuk II	1
10145	Phosphorus	SW-846 6010B	1	103495708003	12/17/2010	23:34	John W Yanzuk II	1
01662	Potassium	SW-846 6010B	1	103495708003	12/17/2010	23:34	John W Yanzuk II	1
01667	Sodium	SW-846 6010B	1	103495708003	12/17/2010	23:34	John W Yanzuk II	1
07968	Strontium	SW-846 6010B	1	103495708003	12/17/2010	23:34	John W Yanzuk II	1
06969	Tin	SW-846 6010B	1	103495708003	12/17/2010	23:34	John W Yanzuk II	1
06970	Titanium	SW-846 6010B	1	103545708005	12/21/2010	20:15	John P Hook	1
10146	Zirconium	SW-846 6010B	1	103495708003	12/17/2010	23:34	John W Yanzuk II	1
06124	Antimony	SW-846 6020	1	103491026003A	12/23/2010	15:06	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103491026003A	12/23/2010	15:06	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103491026003D	12/23/2010	15:06	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103491026003A	12/23/2010	15:06	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103491026003A	12/23/2010	15:06	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103491026003A	12/23/2010	15:06	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103491026003A	12/23/2010	15:06	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103491026003A	12/23/2010	15:06	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103491026003A	12/23/2010	15:06	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103491026003C	12/23/2010	15:06	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103491026003A	12/23/2010	15:06	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103491026003B	12/23/2010	15:06	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103491026003A	12/23/2010	15:06	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103491026003A	12/23/2010	15:06	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103491026003A	12/26/2010	06:42	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	103491026003A	12/23/2010	15:06	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	103495711003	12/20/2010	05:18	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	103495708003	12/16/2010	07:00	Denise K Connors	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	103545708005	12/20/2010	20:07	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103491026003	12/16/2010	07:35	Denise K Connors	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	103495711003	12/16/2010	08:55	Denise K Connors	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10361361201A	12/29/2010	11:23	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10357357201A	12/27/2010	21:03	Ashley M Adams	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	10359243202A	12/30/2010	17:54	Ashley M Adams	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10361361201A	12/27/2010	14:40	Nancy J Shoop	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10357357201A	12/23/2010	19:30	Carolyn M Mastropietro	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10348182102B	12/14/2010	10:45	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10348039402B	12/14/2010	10:45	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10359243202A	12/25/2010	22:10	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	1	10349162401A	12/15/2010	09:13	William C Schwebel	1

\*—This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.



# Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

**Sample Description:** SL-228-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-228-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162907  
**LLI Group #** 1225037  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 09:12

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3405 SDG#: DE034-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04688	Aniline	62-53-3	230	U 230	690		1
04688	Benzidine	92-87-5	1,600	U 1,600	4,600		1
04688	Benzo(a)anthracene	56-55-3	65	J 23	230		1
04688	Benzo(a)pyrene	50-32-8	54	J 23	230		1
04688	Benzo(b)fluoranthene	205-99-2	82	J 23	230		1
04688	Benzo(g,h,i)perylene	191-24-2	44	J 23	230		1
04688	Benzo(k)fluoranthene	207-08-9	36	J 23	230		1
04688	Benzoic acid	65-85-0	230	U 230	690		1
04688	Benzyl alcohol	100-51-6	230	U 230	690		1
04688	4-Bromophenyl-phenylether	101-55-3	23	U 23	230		1
04688	Di-n-butylphthalate	84-74-2	26	J 23	230		1
04688	Carbazole	86-74-8	23	U 23	230		1
04688	4-Chloro-3-methylphenol	59-50-7	46	U 46	230		1
04688	4-Chloroaniline	106-47-8	92	U 92	230		1
04688	bis(2-Chloroethoxy)methane	111-91-1	23	U 23	230		1
04688	bis(2-Chloroethyl)ether	111-44-4	23	U 23	230		1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	23	U 23	230		1
04688	2-Chloronaphthalene	91-58-7	23	U 23	230		1
04688	2-Chlorophenol	95-57-8	23	U 23	230		1
04688	4-Chlorophenyl-phenylether	7005-72-3	46	U 46	230		1
04688	Chrysene	218-01-9	88	J 23	230		1
04688	Dibenz(a,h)anthracene	53-70-3	30	J 23	230		1
04688	Dibenzofuran	132-64-9	23	U 23	230		1
04688	1,2-Dichlorobenzene	95-50-1	23	U 23	230		1
04688	1,3-Dichlorobenzene	541-73-1	23	U 23	230		1
04688	1,4-Dichlorobenzene	106-46-7	23	U 23	230		1
04688	3,3'-Dichlorobenzidine	91-94-1	140	U 140	460		1
04688	2,4-Dichlorophenol	120-83-2	23	U 23	230		1
04688	2,4-Dimethylphenol	105-67-9	46	U 46	230		1
04688	3,5-Dimethylphenol	108-68-9	46	U 46	230		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	230	U 230	690		1
04688	2,4-Dinitrophenol	51-28-5	920	U 920	2,800		1
04688	2,4-Dinitrotoluene	121-14-2	46	U 46	230		1
04688	2,6-Dinitrotoluene	606-20-2	23	U 23	230		1
04688	1,2-Diphenylhydrazine	122-66-7	23	U 23	230		1
04688	Fluoranthene	206-44-0	160	J 23	230		1
04688	Hexachlorobenzene	118-74-1	23	U 23	230		1
04688	Hexachlorobutadiene	87-68-3	92	U 92	230		1
04688	Hexachlorocyclopentadiene	77-47-4	230	U 230	690		1
04688	Hexachloroethane	67-72-1	23	U 23	230		1
04688	Indeno(1,2,3-cd)pyrene	193-39-5	36	J 23	230		1
04688	Isophorone	78-59-1	23	U 23	230		1
04688	2-Methylphenol	95-48-7	46	U 46	230		1
04688	4-Methylphenol	106-44-5	46	U 46	230		1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.							
04688	2-Nitroaniline	88-74-4	23	U 23	230		1
04688	3-Nitroaniline	99-09-2	46	U 46	230		1
04688	4-Nitroaniline	100-01-6	92	U 92	230		1

\*=This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-228-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-228-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162907  
**LLI Group #** 1225037  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 09:12

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3405 SDG#: DE034-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04688	Nitrobenzene	98-95-3	23	U 23	230		1
04688	2-Nitrophenol	88-75-5	23	U 23	230		1
04688	4-Nitrophenol	100-02-7	230	U 230	690		1
04688	N-Nitroso-di-n-propylamine	621-64-7	23	U 23	230		1
04688	N-Nitrosodiphenylamine	86-30-6	23	U 23	230		1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.							
04688	Pentachlorophenol	87-86-5	230	U 230	690		1
04688	Phenanthrene	85-01-8	79	J 23	230		1
04688	Phenol	108-95-2	23	U 23	230		1
04688	Pyrene	129-00-0	180	J 23	230		1
04688	1,2,4-Trichlorobenzene	120-82-1	23	U 23	230		1
04688	2,4,5-Trichlorophenol	95-95-4	46	U 46	230		1
04688	2,4,6-Trichlorophenol	88-06-2	46	U 46	230		1
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C SIM</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10138	Acenaphthene	83-32-9	0.92	U 0.92	2.3		1
10138	Acenaphthylene	208-96-8	0.46	U 0.46	2.3		1
10138	Anthracene	120-12-7	0.46	U 0.46	2.3		1
10138	Butylbenzylphthalate	85-68-7	8.3	U 8.3	25		1
10138	Diethylphthalate	84-66-2	8.3	U 8.3	25		1
10138	Dimethylphthalate	131-11-3	8.3	U 8.3	25		1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	12	J 8.3	25		1
10138	Fluorene	86-73-7	0.92	U 0.92	2.3		1
10138	1-Methylnaphthalene	90-12-0	0.92	U 0.92	2.3		1
10138	2-Methylnaphthalene	91-57-6	0.92	U 0.92	2.3		1
10138	Naphthalene	91-20-3	0.92	U 0.92	2.3		1
10138	N-Nitrosodimethylamine	62-75-9	0.92	U 0.92	2.3		1
10138	Di-n-octylphthalate	117-84-0	8.3	U 8.3	25		1
<b>Herbicides</b>	<b>SW-846 8151A</b>		<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10401	2,4-D	94-75-7	1.7	U 1.7	5.0		1
10401	Dalapon	75-99-0	6.1	U 6.1	12		1
10401	2,4-DB	94-82-6	1.0	J 0.86	2.3		1
10401	Dicamba	1918-00-9	0.55	U 0.55	1.7		1
10401	Dinoseb	88-85-7	1.1	U 1.1	3.3		1
10401	2,4-DP (Dichlorprop)	120-36-5	1.1	U 1.1	2.3		1
10401	MCPA	94-74-6	150	U 150	340		1
10401	MCPP (Mecoprop)	93-65-2	810	100	340		1
10401	2,4,5-T	93-76-5	0.24	0.11	0.23		1
10401	2,4,5-TP	93-72-1	0.10	U 0.10	0.23		1

The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported.

Due to interfering peaks on the chromatogram, the values reported represent the lowest reporting limits attainable.

Despite numerous cleanup methods, our usual reporting limits were not

\*=This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-228-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-228-SA5B-SS-0.0-0.5

LLI Sample # SW 6162907  
 LLI Group # 1225037  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 09:12

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3405 SDG#: DE034-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
attained.							
<b>Pesticides/PCBs</b>		<b>SW-846 8081A</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
01363	Aldrin	309-00-2	0.091 U	0.091	0.23		1
01363	Alpha BHC	319-84-6	0.047 U	0.047	0.23		1
01363	Beta BHC	319-85-7	0.083 U	0.083	0.23		1
01363	Gamma BHC - Lindane	58-89-9	0.047 U	0.047	0.23		1
01363	Chlordane	57-74-9	5.7 U	5.7	5.7		1
01363	p,p-DDD	72-54-8	0.18 U	0.18	0.47		1
01363	p,p-DDE	72-55-9	0.43 U	0.43	0.47		1
01363	p,p-DDT	50-29-3	3.9 U	3.9	3.9		1
01363	Delta BHC	319-86-8	0.050 U	0.050	0.23		1
01363	Dieldrin	60-57-1	0.86 U	0.86	0.86		1
01363	Endosulfan I	959-98-8	0.061 U	0.061	0.23		1
01363	Endosulfan II	33213-65-9	1.5 U	1.5	1.5		1
01363	Endosulfan Sulfate	1031-07-8	0.091 U	0.091	0.47		1
01363	Endrin	72-20-8	0.091 U	0.091	0.47		1
01363	Endrin Aldehyde	7421-93-4	0.54 U	0.54	0.54		1
01363	Endrin Ketone	53494-70-5	0.091 U	0.091	0.47		1
01363	Heptachlor	76-44-8	0.14 U	0.14	0.23		1
01363	Heptachlor Epoxide	1024-57-3	0.30 U	0.30	0.30		1
01363	Methoxychlor	72-43-5	0.47 U	0.47	2.3		1
01363	Mirex	2385-85-5	0.20 U	0.20	0.47		1
01363	Toxaphene	8001-35-2	3.0 U	3.0	9.1		1

Various analytes in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported.

Due to interfering peaks on the chromatogram from the presence of PCBs, the values reported represent the lowest reporting limits attainable. Despite numerous cleanup methods, our usual reporting limits were not attained.

<b>Pesticides/PCBs</b>		<b>SW-846 8082</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10225	Aroclor 5432	63496-31-1	1.4 U	1.4	4.6		1
10225	Aroclor 5442	12642-23-8	1.4 U	1.4	4.6		1
10225	Aroclor 5460	11126-42-4	5.4	1.4	4.6		1
10225	PCB-1016	12674-11-2	0.46 U	0.46	2.3		1
10225	PCB-1221	11104-28-2	0.69 U	0.69	2.3		1
10225	PCB-1232	11141-16-5	0.72 U	0.72	2.3		1
10225	PCB-1242	53469-21-9	0.69 U	0.69	2.3		1
10225	PCB-1248	12672-29-6	0.46 U	0.46	2.3		1
10225	PCB-1254	11097-69-1	0.46 U	0.46	2.3		1
10225	PCB-1260	11096-82-5	14	0.46	2.3		1
10225	PCB-1262	37324-23-5	0.46 U	0.46	2.3		1
10225	PCB-1268	11100-14-4	0.46 U	0.46	2.3		1

The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.

<b>Metals</b>		<b>SW-846 6010B</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
01643	Aluminum	7429-90-5	9,890	6.80	27.0		1
07914	Boron	7440-42-8	7.82	1.20	6.76		1
01650	Calcium	7440-70-2	4,930	8.29	27.0		1
01654	Iron	7439-89-6	14,800	6.37	27.0		1

\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-228-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-228-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162907  
**LLI Group #** 1225037  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 09:12

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3405 SDG#: DE034-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Metals</b>							
		<b>SW-846 6010B</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
01656	Lithium	7439-93-2	17.3	0.30	2.7		1
01657	Magnesium	7439-95-4	3,000	3.43	13.5		1
06958	Manganese	7439-96-5	236	0.105	0.676		1
10145	Phosphorus	7723-14-0	310	0.757	13.5		1
01662	Potassium	7440-09-7	2,620	24.3	67.6		1
01667	Sodium	7440-23-5	72.1 J	50.4	135		1
07968	Strontium	7440-24-6	13.4	0.0838	0.676		1
06969	Tin	7440-31-5	1.91 J	1.35	13.5		1
06970	Titanium	7440-32-6	1,560	0.514	1.35		1
10146	Zirconium	7440-67-7	1.27 J	1.14	6.76		1
		<b>SW-846 6020</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
06124	Antimony	7440-36-0	0.0967 J	0.0819	0.273		2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	4.24	0.0819	0.546		2
06126	Barium	7440-39-3	101	0.147	0.546		2
06127	Beryllium	7440-41-7	0.472	0.0219	0.137		2
06128	Cadmium	7440-43-9	0.320	0.0492	0.137		2
06131	Chromium	7440-47-3	23.3	0.164	0.546		2
06132	Cobalt	7440-48-4	6.02	0.0273	0.137		2
06133	Copper	7440-50-8	16.8	0.0901	0.546		2
06135	Lead	7439-92-1	12.3	0.0142	0.273		2
06138	Molybdenum	7439-98-7	0.567	0.0683	0.137		2
06139	Nickel	7440-02-0	15.4	0.137	0.546		2
06141	Selenium	7782-49-2	0.101 J	0.0546	0.546		2
06142	Silver	7440-22-4	0.0297 J	0.0164	0.137		2
06145	Thallium	7440-28-0	0.240	0.0410	0.137		2
06148	Vanadium	7440-62-2	23.8	0.0300	0.137		2
06149	Zinc	7440-66-6	91.6	0.765	4.10		2
		<b>SW-846 7471A</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
00159	Mercury	7439-97-6	0.0087 J	0.0038	0.134		1
<b>Wet Chemistry</b>							
		<b>EPA 300.0</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.8	1.1	1.4		1
		<b>EPA 314.0</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10147	7a Perchlorate EPA 314.0	14797-73-0	12.4 U	12.4	41.4		1
		<b>SW-846 7199</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
05892	3a Cr VI by EPA 7199	18540-29-9	0.41 J	0.28	1.4		1
		<b>ASTM D1498</b>	<b>mV</b>	<b>mV</b>	<b>mV</b>	<b>mV</b>	
01821	Oxidation Reduction Potential	n.a.	433	10.0	10.0		1

\*-This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-228-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-228-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162907  
**LLI Group #** 1225037  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 09:12

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3405 SDG#: DE034-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Wet Chemistry</b>		<b>ASTM D1498</b>	mV	mV	mV	mV	
The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.							
		<b>SW-846 9045C modified</b>	Std. Units	Std. Units	Std. Units	Std. Units	
00394	22a pH by 9045C	n.a.	7.79	0.0100	0.0100		1
<b>Wet Chemistry</b>		<b>EPA 160.3 modified</b>	%	%	%	%	
11624	28a Moisture Content by 160.3	n.a.	27.5	0.50	0.50		1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.							

### General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10349SLJ026	01/04/2011 15:35	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10349SLG026	12/29/2010 06:45	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10349SLG026	12/16/2010 07:00	Joseph S Feister	1
00381	BNA Soil Sonication	SW-846 3550B	1	10349SLJ026	12/16/2010 07:00	Kerrie A Freeburn	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	103490015A	12/18/2010 06:17	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	103500011A	12/23/2010 21:50	Jamie L Brillhart	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	103500025A	12/21/2010 10:46	Lindsey K Lafferty	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	2	103500011A	12/16/2010 16:50	JoElla L Rice	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	103500025A	12/17/2010 00:40	Roman Kuropatkin	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	103490015A	12/16/2010 02:10	Roman Kuropatkin	1
01643	Aluminum	SW-846 6010B	1	103495708003	12/17/2010 23:38	John W Yanzuk II	1
07914	Boron	SW-846 6010B	1	103495708003	12/17/2010 23:38	John W Yanzuk II	1
01650	Calcium	SW-846 6010B	1	103495708003	12/17/2010 23:38	John W Yanzuk II	1
01654	Iron	SW-846 6010B	1	103495708003	12/17/2010 23:38	John W Yanzuk II	1
01656	Lithium	SW-846 6010B	1	103495708003	12/17/2010 23:38	John W Yanzuk II	1
01657	Magnesium	SW-846 6010B	1	103495708003	12/17/2010 23:38	John W Yanzuk II	1

\*=This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-228-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-228-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162907  
**LLI Group #** 1225037  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 09:12

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3405 SDG#: DE034-05

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
06958	Manganese	SW-846 6010B	1	103495708003	12/17/2010	23:38	John W Yanzuk II	1
10145	Phosphorus	SW-846 6010B	1	103495708003	12/17/2010	23:38	John W Yanzuk II	1
01662	Potassium	SW-846 6010B	1	103495708003	12/17/2010	23:38	John W Yanzuk II	1
01667	Sodium	SW-846 6010B	1	103495708003	12/17/2010	23:38	John W Yanzuk II	1
07968	Strontium	SW-846 6010B	1	103495708003	12/17/2010	23:38	John W Yanzuk II	1
06969	Tin	SW-846 6010B	1	103495708003	12/17/2010	23:38	John W Yanzuk II	1
06970	Titanium	SW-846 6010B	1	103545708005	12/21/2010	20:19	John P Hook	1
10146	Zirconium	SW-846 6010B	1	103495708003	12/17/2010	23:38	John W Yanzuk II	1
06124	Antimony	SW-846 6020	1	103491026003A	12/23/2010	15:09	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103491026003A	12/23/2010	15:09	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103491026003D	12/23/2010	15:09	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103491026003A	12/23/2010	15:09	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103491026003A	12/23/2010	15:09	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103491026003A	12/23/2010	15:09	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103491026003A	12/23/2010	15:09	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103491026003A	12/23/2010	15:09	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103491026003A	12/23/2010	15:09	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103491026003C	12/23/2010	15:09	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103491026003A	12/23/2010	15:09	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103491026003B	12/23/2010	15:09	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103491026003A	12/23/2010	15:09	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103491026003A	12/23/2010	15:09	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103491026003A	12/26/2010	06:44	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	103491026003A	12/23/2010	15:09	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	103495711003	12/20/2010	05:20	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	103495708003	12/16/2010	07:00	Denise K Connors	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	103545708005	12/20/2010	20:07	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103491026003	12/16/2010	07:35	Denise K Connors	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	103495711003	12/16/2010	08:55	Denise K Connors	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10361361201A	12/29/2010	14:13	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10357357201A	12/27/2010	22:39	Ashley M Adams	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	10359243202A	12/30/2010	18:10	Ashley M Adams	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10361361201A	12/27/2010	14:40	Nancy J Shoop	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10357357201A	12/23/2010	19:30	Carolyn M Mastropietro	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10348182102B	12/14/2010	10:45	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10348039402B	12/14/2010	10:45	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10359243202A	12/25/2010	22:10	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	1	10349162401A	12/15/2010	09:13	William C Schwebel	1

\*—This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-229-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-229-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162908  
**LLI Group #** 1225037  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 08:40

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3406 SDG#: DE034-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04688	Aniline	62-53-3	190	U 190	570		1
04688	Benzidine	92-87-5	1,300	U 1,300	3,800		1
04688	Benzoic acid	65-85-0	190	U 190	570		1
04688	Benzyl alcohol	100-51-6	190	U 190	570		1
04688	4-Bromophenyl-phenylether	101-55-3	19	U 19	190		1
04688	Carbazole	86-74-8	19	U 19	190		1
04688	4-Chloro-3-methylphenol	59-50-7	38	U 38	190		1
04688	4-Chloroaniline	106-47-8	76	U 76	190		1
04688	bis(2-Chloroethoxy)methane	111-91-1	19	U 19	190		1
04688	bis(2-Chloroethyl)ether	111-44-4	19	U 19	190		1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	19	U 19	190		1
04688	2-Chloronaphthalene	91-58-7	19	U 19	190		1
04688	2-Chlorophenol	95-57-8	19	U 19	190		1
04688	4-Chlorophenyl-phenylether	7005-72-3	38	U 38	190		1
04688	Dibenzofuran	132-64-9	19	U 19	190		1
04688	1,2-Dichlorobenzene	95-50-1	19	U 19	190		1
04688	1,3-Dichlorobenzene	541-73-1	19	U 19	190		1
04688	1,4-Dichlorobenzene	106-46-7	19	U 19	190		1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	380		1
04688	2,4-Dichlorophenol	120-83-2	19	U 19	190		1
04688	2,4-Dimethylphenol	105-67-9	38	U 38	190		1
04688	3,5-Dimethylphenol	108-68-9	38	U 38	190		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	190	U 190	570		1
04688	2,4-Dinitrophenol	51-28-5	760	U 760	2,300		1
04688	2,4-Dinitrotoluene	121-14-2	38	U 38	190		1
04688	2,6-Dinitrotoluene	606-20-2	19	U 19	190		1
04688	1,2-Diphenylhydrazine	122-66-7	19	U 19	190		1
04688	Hexachlorobenzene	118-74-1	19	U 19	190		1
04688	Hexachlorobutadiene	87-68-3	76	U 76	190		1
04688	Hexachlorocyclopentadiene	77-47-4	190	U 190	570		1
04688	Hexachloroethane	67-72-1	19	U 19	190		1
04688	Isophorone	78-59-1	19	U 19	190		1
04688	2-Methylphenol	95-48-7	38	U 38	190		1
04688	4-Methylphenol	106-44-5	38	U 38	190		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	19	U 19	190		1
04688	3-Nitroaniline	99-09-2	38	U 38	190		1
04688	4-Nitroaniline	100-01-6	76	U 76	190		1
04688	Nitrobenzene	98-95-3	19	U 19	190		1
04688	2-Nitrophenol	88-75-5	19	U 19	190		1
04688	4-Nitrophenol	100-02-7	190	U 190	570		1
04688	N-Nitroso-di-n-propylamine	621-64-7	19	U 19	190		1
04688	N-Nitrosodiphenylamine	86-30-6	19	U 19	190		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	190	U 190	570		1
04688	Phenol	108-95-2	19	U 19	190		1

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**Sample Description:** SL-229-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-229-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162908  
**LLI Group #** 1225037  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 08:40

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3406 SDG#: DE034-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS Semivolatiles SW-846 8270C</b>			ug/kg	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	19	U 19	190		1
04688	2,4,5-Trichlorophenol	95-95-4	38	U 38	190		1
04688	2,4,6-Trichlorophenol	88-06-2	38	U 38	190		1
<b>GC/MS Semivolatiles SW-846 8270C SIM</b>			ug/kg	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.76	U 0.76	1.9		1
10138	Acenaphthylene	208-96-8	0.38	U 0.38	1.9		1
10138	Anthracene	120-12-7	0.38	U 0.38	1.9		1
10138	Benzo(a)anthracene	56-55-3	0.76	U 0.76	1.9		1
10138	Benzo(a)pyrene	50-32-8	0.76	U 0.76	1.9		1
10138	Benzo(b)fluoranthene	205-99-2	0.76	U 0.76	1.9		1
10138	Benzo(g,h,i)perylene	191-24-2	0.76	U 0.76	1.9		1
10138	Benzo(k)fluoranthene	207-08-9	0.76	U 0.76	1.9		1
10138	Butylbenzylphthalate	85-68-7	6.8	U 6.8	21		1
10138	Di-n-butylphthalate	84-74-2	6.8	U 6.8	21		1
10138	Chrysene	218-01-9	0.38	U 0.38	1.9		1
10138	Dibenz(a,h)anthracene	53-70-3	0.76	U 0.76	1.9		1
10138	Diethylphthalate	84-66-2	6.8	U 6.8	21		1
10138	Dimethylphthalate	131-11-3	6.8	U 6.8	21		1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	11	J 6.8	21		1
10138	Fluoranthene	206-44-0	0.76	U 0.76	1.9		1
10138	Fluorene	86-73-7	0.76	U 0.76	1.9		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.76	U 0.76	1.9		1
10138	1-Methylnaphthalene	90-12-0	0.76	U 0.76	1.9		1
10138	2-Methylnaphthalene	91-57-6	0.76	U 0.76	1.9		1
10138	Naphthalene	91-20-3	0.76	U 0.76	1.9		1
10138	N-Nitrosodimethylamine	62-75-9	0.76	U 0.76	1.9		1
10138	Di-n-octylphthalate	117-84-0	6.8	U 6.8	21		1
10138	Phenanthrene	85-01-8	0.76	U 0.76	1.9		1
10138	Pyrene	129-00-0	0.76	U 0.76	1.9		1
<b>Herbicides SW-846 8151A</b>			ug/kg	ug/kg	ug/kg	ug/kg	
10401	2,4-D	94-75-7	1.4	U 1.4	4.1		1
10401	Dalapon	75-99-0	5.0	U 5.0	10		1
10401	2,4-DB	94-82-6	1.9	J 0.71	1.9		1
10401	Dicamba	1918-00-9	0.46	U 0.46	1.4		1
10401	Dinoseb	88-85-7	0.91	U 0.91	2.7		1
10401	2,4-DP (Dichlorprop)	120-36-5	0.91	U 0.91	1.9		1
10401	MCPA	94-74-6	140	U 140	280		1
10401	MCPP (Mecoprop)	93-65-2	180	J 85	280		1
10401	2,4,5-T	93-76-5	0.093	U 0.093	0.19		1
10401	2,4,5-TP	93-72-1	0.085	U 0.085	0.19		1

The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported.

Due to interfering peaks on the chromatogram, the values reported represent the lowest reporting limits attainable.

Despite numerous cleanup methods, our usual reporting limits were not

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 SSFL Area IV Collocated Soil Sampling  
 SL-229-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162908  
**LLI Group #** 1225037  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 08:40

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3406 SDG#: DE034-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
attained.							
<b>Pesticides/PCBs</b>		<b>SW-846 8081A</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
01363	Aldrin	309-00-2	0.075 U	0.075	0.19		1
01363	Alpha BHC	319-84-6	0.039 U	0.039	0.19		1
01363	Beta BHC	319-85-7	0.12 J	0.068	0.19		1
01363	Gamma BHC - Lindane	58-89-9	0.039 U	0.039	0.19		1
01363	Chlordane	57-74-9	0.91 U	0.91	3.9		1
01363	p,p-DDD	72-54-8	0.075 U	0.075	0.39		1
01363	p,p-DDE	72-55-9	0.12 U	0.12	0.39		1
01363	p,p-DDT	50-29-3	0.075 U	0.075	0.39		1
01363	Delta BHC	319-86-8	0.041 U	0.041	0.19		1
01363	Dieldrin	60-57-1	0.099 U	0.099	0.39		1
01363	Endosulfan I	959-98-8	0.050 U	0.050	0.19		1
01363	Endosulfan II	33213-65-9	0.075 U	0.075	0.39		1
01363	Endosulfan Sulfate	1031-07-8	0.59	0.075	0.39		1
01363	Endrin	72-20-8	0.075 U	0.075	0.39		1
01363	Endrin Aldehyde	7421-93-4	0.075 U	0.075	0.39		1
01363	Endrin Ketone	53494-70-5	0.075 U	0.075	0.39		1
01363	Heptachlor	76-44-8	0.068 U	0.068	0.19		1
01363	Heptachlor Epoxide	1024-57-3	0.039 U	0.039	0.19		1
01363	Methoxychlor	72-43-5	0.96 J	0.39	1.9		1
01363	Mirex	2385-85-5	0.075 U	0.075	0.39		1
01363	Toxaphene	8001-35-2	2.5 U	2.5	7.5		1

The LCS recovery for p,p-DDT and methoxychlor are outside the QC limits. Results from the reextraction are within the limits for p,p-DDT and methoxychlor. The hold time had expired prior to the reextraction so all results are reported from the original extract. Similar results were obtained in both extracts for p,p-DDT and methoxychlor. Various analytes in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported. Due to interfering peaks on the chromatogram, the values reported for p,p-DDE and dieldrin represent the lowest reporting limits attainable.

<b>Pesticides/PCBs</b>		<b>SW-846 8082</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.8	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.8	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.8	1
10225	PCB-1016	12674-11-2	0.38 U	0.38	1.9	1
10225	PCB-1221	11104-28-2	0.57 U	0.57	1.9	1
10225	PCB-1232	11141-16-5	0.59 U	0.59	1.9	1
10225	PCB-1242	53469-21-9	0.57 U	0.57	1.9	1
10225	PCB-1248	12672-29-6	0.38 U	0.38	1.9	1
10225	PCB-1254	11097-69-1	0.38 U	0.38	1.9	1
10225	PCB-1260	11096-82-5	0.38 U	0.38	1.9	1
10225	PCB-1262	37324-23-5	0.38 U	0.38	1.9	1
10225	PCB-1268	11100-14-4	0.38 U	0.38	1.9	1

The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.

<b>Metals</b>	<b>SW-846 6010B</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>
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**Sample Description:** SL-229-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-229-SA5B-SS-0.0-0.5

LLI Sample # SW 6162908  
 LLI Group # 1225037  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 08:40

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
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Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3406 SDG#: DE034-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Metals</b>							
	<b>SW-846 6010B</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
01643	Aluminum	7429-90-5	11,400	5.67	22.6		1
07914	Boron	7440-42-8	9.10	1.00	5.64		1
01650	Calcium	7440-70-2	4,140	6.91	22.6		1
01654	Iron	7439-89-6	15,800	5.31	22.6		1
01656	Lithium	7439-93-2	17.2	0.25	2.3		1
01657	Magnesium	7439-95-4	3,650	2.86	11.3		1
06958	Manganese	7439-96-5	232	0.0880	0.564		1
10145	Phosphorus	7723-14-0	425	0.631	11.3		1
01662	Potassium	7440-09-7	2,520	20.3	56.4		1
01667	Sodium	7440-23-5	668	42.1	113		1
07968	Strontium	7440-24-6	30.3	0.0699	0.564		1
06969	Tin	7440-31-5	1.59 J	1.13	11.3		1
06970	Titanium	7440-32-6	1,030	0.424	1.12		1
10146	Zirconium	7440-67-7	2.55 J	0.947	5.64		1
	<b>SW-846 6020</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
06124	Antimony	7440-36-0	0.104 J	0.0677	0.226		2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	5.27	0.0677	0.451		2
06126	Barium	7440-39-3	99.7	0.122	0.451		2
06127	Beryllium	7440-41-7	0.470	0.0180	0.113		2
06128	Cadmium	7440-43-9	0.213	0.0406	0.113		2
06131	Chromium	7440-47-3	22.6	0.135	0.451		2
06132	Cobalt	7440-48-4	5.92	0.0226	0.113		2
06133	Copper	7440-50-8	9.77	0.0744	0.451		2
06135	Lead	7439-92-1	7.53	0.0117	0.226		2
06138	Molybdenum	7439-98-7	1.21	0.0564	0.113		2
06139	Nickel	7440-02-0	14.2	0.113	0.451		2
06141	Selenium	7782-49-2	0.162 J	0.0451	0.451		2
06142	Silver	7440-22-4	0.0404 J	0.0135	0.113		2
06145	Thallium	7440-28-0	0.257	0.0338	0.113		2
06148	Vanadium	7440-62-2	25.6	0.0248	0.113		2
06149	Zinc	7440-66-6	97.2	0.631	3.38		2
	<b>SW-846 7471A</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
00159	Mercury	7439-97-6	0.0185 J	0.0030	0.106		1
<b>Wet Chemistry</b>							
	<b>EPA 300.0</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	4.2	0.91	1.1		1
	<b>EPA 314.0</b>		<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10147	7a Perchlorate EPA 314.0	14797-73-0	10.3 U	10.3	34.2		1
	<b>SW-846 7199</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
05892	3a Cr VI by EPA 7199	18540-29-9	0.23 U	0.23	1.1		1

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**Sample Description:** SL-229-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-229-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162908  
**LLI Group #** 1225037  
**Account #** 13013

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E3406 SDG#: DE034-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Wet Chemistry</b>		<b>ASTM D1498</b>	mV	mV	mV	mV	
01821	Oxidation Reduction Potential	n.a.	438	10.0	10.0		1
	The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.						
		<b>SW-846 9045C modified</b>	<b>Std. Units</b>	<b>Std. Units</b>	<b>Std. Units</b>	<b>Std. Units</b>	
00394	22a pH by 9045C	n.a.	8.81	0.0100	0.0100		1
<b>Wet Chemistry</b>		<b>EPA 160.3 modified</b>	%	%	%	%	
11624	28a Moisture Content by 160.3	n.a.	12.2	0.50	0.50		1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

### General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10349SLJ026	01/04/2011 16:00	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10349SLG026	12/29/2010 07:19	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10349SLG026	12/16/2010 07:00	Joseph S Feister	1
00381	BNA Soil Sonication	SW-846 3550B	1	10349SLJ026	12/16/2010 07:00	Kerrie A Freeburn	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	103490015A	12/18/2010 06:44	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	103500011A	12/23/2010 22:05	Jamie L Brillhart	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	103500025A	12/21/2010 11:04	Lindsey K Lafferty	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	103500011A	12/16/2010 16:50	JoElla L Rice	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	103500025A	12/17/2010 00:40	Roman Kuropatkin	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	103490015A	12/16/2010 02:10	Roman Kuropatkin	1
01643	Aluminum	SW-846 6010B	1	103495708003	12/17/2010 23:42	John W Yanzuk II	1
07914	Boron	SW-846 6010B	1	103495708003	12/17/2010 23:42	John W Yanzuk II	1
01650	Calcium	SW-846 6010B	1	103495708003	12/17/2010 23:42	John W Yanzuk II	1
01654	Iron	SW-846 6010B	1	103495708003	12/17/2010 23:42	John W Yanzuk II	1
01656	Lithium	SW-846 6010B	1	103495708003	12/17/2010 23:42	John W Yanzuk II	1

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E3406 SDG#: DE034-06

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01657	Magnesium	SW-846 6010B	1	103495708003	12/17/2010 23:42	John W Yanzuk II	1
06958	Manganese	SW-846 6010B	1	103495708003	12/17/2010 23:42	John W Yanzuk II	1
10145	Phosphorus	SW-846 6010B	1	103495708003	12/17/2010 23:42	John W Yanzuk II	1
01662	Potassium	SW-846 6010B	1	103495708003	12/17/2010 23:42	John W Yanzuk II	1
01667	Sodium	SW-846 6010B	1	103495708003	12/17/2010 23:42	John W Yanzuk II	1
07968	Strontium	SW-846 6010B	1	103495708003	12/17/2010 23:42	John W Yanzuk II	1
06969	Tin	SW-846 6010B	1	103495708003	12/17/2010 23:42	John W Yanzuk II	1
06970	Titanium	SW-846 6010B	1	103545708005	12/21/2010 20:23	John P Hook	1
10146	Zirconium	SW-846 6010B	1	103495708003	12/17/2010 23:42	John W Yanzuk II	1
06124	Antimony	SW-846 6020	1	103491026003A	12/23/2010 15:12	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103491026003A	12/23/2010 15:12	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103491026003D	12/23/2010 15:12	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103491026003A	12/23/2010 15:12	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103491026003A	12/23/2010 15:12	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103491026003A	12/23/2010 15:12	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103491026003A	12/23/2010 15:12	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103491026003A	12/23/2010 15:12	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103491026003A	12/23/2010 15:12	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103491026003C	12/23/2010 15:12	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103491026003A	12/23/2010 15:12	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103491026003B	12/23/2010 15:12	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103491026003A	12/23/2010 15:12	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103491026003A	12/23/2010 15:12	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103491026003A	12/26/2010 06:46	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	103491026003A	12/23/2010 15:12	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	103495711003	12/20/2010 05:21	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	103495708003	12/16/2010 07:00	Denise K Conners	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	103545708005	12/20/2010 20:07	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103491026003	12/16/2010 07:35	Denise K Conners	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	103495711003	12/16/2010 08:55	Denise K Conners	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10361361201A	12/29/2010 14:27	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10357357201A	12/27/2010 23:03	Ashley M Adams	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	10359243202A	12/30/2010 18:42	Ashley M Adams	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10361361201A	12/27/2010 14:40	Nancy J Shoop	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10357357201A	12/23/2010 19:30	Carolyn M Mastropietro	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10348182102B	12/14/2010 10:45	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10348039402B	12/14/2010 10:45	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10359243202A	12/25/2010 22:10	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	1	10349162401A	12/15/2010 09:13	William C Schwebel	1

\*—This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-048-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-048-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162909  
**LLI Group #** 1225037  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 09:03

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3407 SDG#: DE034-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04688	Aniline	62-53-3	190	U 190	560		1
04688	Benzidine	92-87-5	1,300	U 1,300	3,800		1
04688	Benzoic acid	65-85-0	190	U 190	560		1
04688	Benzyl alcohol	100-51-6	190	U 190	560		1
04688	4-Bromophenyl-phenylether	101-55-3	19	U 19	190		1
04688	Carbazole	86-74-8	19	U 19	190		1
04688	4-Chloro-3-methylphenol	59-50-7	38	U 38	190		1
04688	4-Chloroaniline	106-47-8	75	U 75	190		1
04688	bis(2-Chloroethoxy)methane	111-91-1	19	U 19	190		1
04688	bis(2-Chloroethyl)ether	111-44-4	19	U 19	190		1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	19	U 19	190		1
04688	2-Chloronaphthalene	91-58-7	19	U 19	190		1
04688	2-Chlorophenol	95-57-8	19	U 19	190		1
04688	4-Chlorophenyl-phenylether	7005-72-3	38	U 38	190		1
04688	Dibenzofuran	132-64-9	19	U 19	190		1
04688	1,2-Dichlorobenzene	95-50-1	19	U 19	190		1
04688	1,3-Dichlorobenzene	541-73-1	19	U 19	190		1
04688	1,4-Dichlorobenzene	106-46-7	19	U 19	190		1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	380		1
04688	2,4-Dichlorophenol	120-83-2	19	U 19	190		1
04688	2,4-Dimethylphenol	105-67-9	38	U 38	190		1
04688	3,5-Dimethylphenol	108-68-9	38	U 38	190		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	190	U 190	560		1
04688	2,4-Dinitrophenol	51-28-5	750	U 750	2,300		1
04688	2,4-Dinitrotoluene	121-14-2	38	U 38	190		1
04688	2,6-Dinitrotoluene	606-20-2	19	U 19	190		1
04688	1,2-Diphenylhydrazine	122-66-7	19	U 19	190		1
04688	Hexachlorobenzene	118-74-1	19	U 19	190		1
04688	Hexachlorobutadiene	87-68-3	75	U 75	190		1
04688	Hexachlorocyclopentadiene	77-47-4	190	U 190	560		1
04688	Hexachloroethane	67-72-1	19	U 19	190		1
04688	Isophorone	78-59-1	19	U 19	190		1
04688	2-Methylphenol	95-48-7	38	U 38	190		1
04688	4-Methylphenol	106-44-5	38	U 38	190		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	19	U 19	190		1
04688	3-Nitroaniline	99-09-2	38	U 38	190		1
04688	4-Nitroaniline	100-01-6	75	U 75	190		1
04688	Nitrobenzene	98-95-3	19	U 19	190		1
04688	2-Nitrophenol	88-75-5	19	U 19	190		1
04688	4-Nitrophenol	100-02-7	190	U 190	560		1
04688	N-Nitroso-di-n-propylamine	621-64-7	19	U 19	190		1
04688	N-Nitrosodiphenylamine	86-30-6	19	U 19	190		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	190	U 190	560		1
04688	Phenol	108-95-2	19	U 19	190		1

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**Sample Description:** SL-048-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-048-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162909  
**LLI Group #** 1225037  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 09:03

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3407 SDG#: DE034-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS Semivolatiles SW-846 8270C</b>			ug/kg	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	19	U 19	190		1
04688	2,4,5-Trichlorophenol	95-95-4	38	U 38	190		1
04688	2,4,6-Trichlorophenol	88-06-2	38	U 38	190		1
<b>GC/MS Semivolatiles SW-846 8270C SIM</b>			ug/kg	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.75	U 0.75	1.9		1
10138	Acenaphthylene	208-96-8	0.38	U 0.38	1.9		1
10138	Anthracene	120-12-7	0.38	U 0.38	1.9		1
10138	Benzo(a)anthracene	56-55-3	0.75	U 0.75	1.9		1
10138	Benzo(a)pyrene	50-32-8	0.75	U 0.75	1.9		1
10138	Benzo(b)fluoranthene	205-99-2	0.75	U 0.75	1.9		1
10138	Benzo(g,h,i)perylene	191-24-2	0.75	U 0.75	1.9		1
10138	Benzo(k)fluoranthene	207-08-9	0.75	U 0.75	1.9		1
10138	Butylbenzylphthalate	85-68-7	6.8	U 6.8	20		1
10138	Di-n-butylphthalate	84-74-2	6.8	U 6.8	20		1
10138	Chrysene	218-01-9	0.38	U 0.38	1.9		1
10138	Dibenz(a,h)anthracene	53-70-3	0.75	U 0.75	1.9		1
10138	Diethylphthalate	84-66-2	6.8	U 6.8	20		1
10138	Dimethylphthalate	131-11-3	6.8	U 6.8	20		1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	13	J 6.8	20		1
10138	Fluoranthene	206-44-0	0.75	U 0.75	1.9		1
10138	Fluorene	86-73-7	0.75	U 0.75	1.9		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.75	U 0.75	1.9		1
10138	1-Methylnaphthalene	90-12-0	0.75	U 0.75	1.9		1
10138	2-Methylnaphthalene	91-57-6	0.75	U 0.75	1.9		1
10138	Naphthalene	91-20-3	0.75	U 0.75	1.9		1
10138	N-Nitrosodimethylamine	62-75-9	0.75	U 0.75	1.9		1
10138	Di-n-octylphthalate	117-84-0	14	J 6.8	20		1
10138	Phenanthrene	85-01-8	0.75	U 0.75	1.9		1
10138	Pyrene	129-00-0	0.75	U 0.75	1.9		1
<b>Herbicides SW-846 8151A</b>			ug/kg	ug/kg	ug/kg	ug/kg	
10401	2,4-D	94-75-7	1.4	U 1.4	4.1		1
10401	Dalapon	75-99-0	5.0	U 5.0	10		1
10401	2,4-DB	94-82-6	2.0	U 0.70	1.9		1
10401	Dicamba	1918-00-9	0.47	J 0.45	1.4		1
10401	Dinoseb	88-85-7	0.90	U 0.90	2.7		1
10401	2,4-DP (Dichlorprop)	120-36-5	0.90	U 0.90	1.9		1
10401	MCPA	94-74-6	86	U 86	280		1
10401	MCPP (Mecoprop)	93-65-2	85	U 85	280		1
10401	2,4,5-T	93-76-5	0.092	U 0.092	0.19		1
10401	2,4,5-TP	93-72-1	0.085	U 0.085	0.19		1
<p>The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported.</p>							
<b>Pesticides/PCBs SW-846 8081A</b>			ug/kg	ug/kg	ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.074	U 0.074	0.19		1
01363	Alpha BHC	319-84-6	0.038	U 0.038	0.19		1

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**Sample Description:** SL-048-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-048-SA5B-SS-0.0-0.5

LLI Sample # SW 6162909  
 LLI Group # 1225037  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 09:03

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3407 SDG#: DE034-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Pesticides/PCBs</b>		<b>SW-846 8081A</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
01363	Beta BHC	319-85-7	0.068 U	0.068	0.19		1
01363	Gamma BHC - Lindane	58-89-9	0.043 U	0.043	0.19		1
01363	Chlordane	57-74-9	2.1 U	2.1	3.8		1
01363	p,p-DDD	72-54-8	0.10 U	0.10	0.38		1
01363	p,p-DDE	72-55-9	0.26 U	0.26	0.38		1
01363	p,p-DDT	50-29-3	0.45 U	0.45	0.45		1
01363	Delta BHC	319-86-8	0.050 U	0.050	0.19		1
01363	Dieldrin	60-57-1	0.074 U	0.074	0.38		1
01363	Endosulfan I	959-98-8	0.050 U	0.050	0.19		1
01363	Endosulfan II	33213-65-9	0.074 U	0.074	0.38		1
01363	Endosulfan Sulfate	1031-07-8	0.36 U	0.36	0.38		1
01363	Endrin	72-20-8	0.074 U	0.074	0.38		1
01363	Endrin Aldehyde	7421-93-4	0.074 U	0.074	0.38		1
01363	Endrin Ketone	53494-70-5	0.074 U	0.074	0.38		1
01363	Heptachlor	76-44-8	0.22 U	0.22	0.22		1
01363	Heptachlor Epoxide	1024-57-3	0.038 U	0.038	0.19		1
01363	Methoxychlor	72-43-5	0.38 U	0.38	1.9		1
01363	Mirex	2385-85-5	0.73 U	0.73	0.73		1
01363	Toxaphene	8001-35-2	2.5 U	2.5	7.4		1

Various analytes in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported.

Due to interfering peaks on the chromatogram from the presence of PCBs, the values reported represent the lowest reporting limits attainable. Despite numerous cleanup methods, our usual reporting limits were not attained.

<b>Pesticides/PCBs</b>		<b>SW-846 8082</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.7	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.7	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.7	1
10225	PCB-1016	12674-11-2	0.37 U	0.37	1.9	1
10225	PCB-1221	11104-28-2	0.56 U	0.56	1.9	1
10225	PCB-1232	11141-16-5	0.59 U	0.59	1.9	1
10225	PCB-1242	53469-21-9	0.56 U	0.56	1.9	1
10225	PCB-1248	12672-29-6	0.37 U	0.37	1.9	1
10225	PCB-1254	11097-69-1	0.37 U	0.37	1.9	1
10225	PCB-1260	11096-82-5	1.6 J	0.37	1.9	1
10225	PCB-1262	37324-23-5	0.37 U	0.37	1.9	1
10225	PCB-1268	11100-14-4	0.37 U	0.37	1.9	1

The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.

The surrogate data is outside the QC limits due to unresolvable matrix problems evident in the sample chromatogram.

<b>Metals</b>		<b>SW-846 6010B</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>
01643	Aluminum	7429-90-5	15,300	5.51	21.9	1
07914	Boron	7440-42-8	6.83	0.974	5.47	1
01650	Calcium	7440-70-2	2,620	6.71	21.9	1
01654	Iron	7439-89-6	27,600	25.8	109	5

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**Sample Description:** SL-048-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-048-SA5B-SS-0.0-0.5

LLI Sample # SW 6162909  
 LLI Group # 1225037  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 09:03

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 14420 Albemarle Point Place  
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Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3407 SDG#: DE034-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Metals</b>							
<b>SW-846 6010B</b>			<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
01656	Lithium	7439-93-2	24.7	0.24	2.2		1
01657	Magnesium	7439-95-4	5,080	2.78	10.9		1
06958	Manganese	7439-96-5	322	0.0854	0.547		1
10145	Phosphorus	7723-14-0	350	0.613	10.9		1
01662	Potassium	7440-09-7	4,830	19.7	54.7		1
01667	Sodium	7440-23-5	80.4 J	40.8	109		1
07968	Strontium	7440-24-6	13.7	0.0679	0.547		1
06969	Tin	7440-31-5	3.11 J	1.09	10.9		1
06970	Titanium	7440-32-6	1,120	0.420	1.11		1
10146	Zirconium	7440-67-7	0.919 U	0.919	5.47		1
<b>SW-846 6020</b>			<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
06124	Antimony	7440-36-0	0.0697 J	0.0676	0.225		2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.							
06125	Arsenic	7440-38-2	5.75	0.0676	0.451		2
06126	Barium	7440-39-3	118	0.122	0.451		2
06127	Beryllium	7440-41-7	0.602	0.0180	0.113		2
06128	Cadmium	7440-43-9	0.203	0.0406	0.113		2
06131	Chromium	7440-47-3	16.6	0.135	0.451		2
06132	Cobalt	7440-48-4	5.82	0.0225	0.113		2
06133	Copper	7440-50-8	8.26	0.0744	0.451		2
06135	Lead	7439-92-1	7.82	0.0117	0.225		2
06138	Molybdenum	7439-98-7	0.327	0.0564	0.113		2
06139	Nickel	7440-02-0	10.9	0.113	0.451		2
06141	Selenium	7782-49-2	0.0943 J	0.0451	0.451		2
06142	Silver	7440-22-4	0.0230 J	0.0135	0.113		2
06145	Thallium	7440-28-0	0.395	0.0338	0.113		2
06148	Vanadium	7440-62-2	26.7	0.0248	0.113		2
06149	Zinc	7440-66-6	84.3	0.631	3.38		2
<b>SW-846 7471A</b>			<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
00159	Mercury	7439-97-6	0.0032 U	0.0032	0.112		1
<b>Wet Chemistry</b>							
<b>EPA 300.0</b>			<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	0.98 J	0.90	1.1		1
<b>EPA 314.0</b>			<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10147	7a Perchlorate EPA 314.0	14797-73-0	10.1 U	10.1	33.8		1
<b>SW-846 7199</b>			<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
05892	3a Cr VI by EPA 7199	18540-29-9	0.23 U	0.23	1.1		1
<b>ASTM D1498</b>			<b>mV</b>	<b>mV</b>	<b>mV</b>	<b>mV</b>	
01821	Oxidation Reduction Potential	n.a.	470	10.0	10.0		1

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**Sample Description:** SL-048-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-048-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162909  
**LLI Group #** 1225037  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 09:03

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Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3407 SDG#: DE034-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Wet Chemistry</b>		<b>ASTM D1498</b>	mV	mV	mV	mV	
The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.							
		<b>SW-846 9045C modified</b>	Std. Units	Std. Units	Std. Units	Std. Units	
00394	22a pH by 9045C	n.a.	7.68	0.0100	0.0100		1
<b>Wet Chemistry</b>		<b>EPA 160.3 modified</b>	%	%	%	%	
11624	28a Moisture Content by 160.3	n.a.	11.3	0.50	0.50		1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.							

### General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10349SLJ026	01/04/2011 16:26	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10349SLG026	12/29/2010 07:52	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10349SLG026	12/16/2010 07:00	Joseph S Feister	1
00381	BNA Soil Sonication	SW-846 3550B	1	10349SLJ026	12/16/2010 07:00	Kerrie A Freeburn	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	103490015A	12/18/2010 07:12	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	103500011A	12/23/2010 22:20	Jamie L Brillhart	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	103500025A	12/21/2010 12:37	Lindsey K Lafferty	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	2	103500011A	12/16/2010 16:50	JoElla L Rice	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	103500025A	12/17/2010 00:40	Roman Kuropatkin	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	103490015A	12/16/2010 02:10	Roman Kuropatkin	1
01643	Aluminum	SW-846 6010B	1	103495708003	12/17/2010 23:45	John W Yanzuk II	1
07914	Boron	SW-846 6010B	1	103495708003	12/17/2010 23:45	John W Yanzuk II	1
01650	Calcium	SW-846 6010B	1	103495708003	12/17/2010 23:45	John W Yanzuk II	1
01654	Iron	SW-846 6010B	1	103495708003	12/20/2010 12:53	Joanne M Gates	5
01656	Lithium	SW-846 6010B	1	103495708003	12/17/2010 23:45	John W Yanzuk II	1
01657	Magnesium	SW-846 6010B	1	103495708003	12/17/2010 23:45	John W Yanzuk II	1

\*=This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-048-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-048-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162909  
**LLI Group #** 1225037  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 09:03

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3407 SDG#: DE034-07

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
					Date	Time		
06958	Manganese	SW-846 6010B	1	103495708003	12/17/2010	23:45	John W Yanzuk II	1
10145	Phosphorus	SW-846 6010B	1	103495708003	12/17/2010	23:45	John W Yanzuk II	1
01662	Potassium	SW-846 6010B	1	103495708003	12/17/2010	23:45	John W Yanzuk II	1
01667	Sodium	SW-846 6010B	1	103495708003	12/17/2010	23:45	John W Yanzuk II	1
07968	Strontium	SW-846 6010B	1	103495708003	12/17/2010	23:45	John W Yanzuk II	1
06969	Tin	SW-846 6010B	1	103495708003	12/17/2010	23:45	John W Yanzuk II	1
06970	Titanium	SW-846 6010B	1	103545708005	12/21/2010	20:26	John P Hook	1
10146	Zirconium	SW-846 6010B	1	103495708003	12/17/2010	23:45	John W Yanzuk II	1
06124	Antimony	SW-846 6020	1	103491026003A	12/23/2010	15:15	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103491026003A	12/23/2010	15:15	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103491026003D	12/23/2010	15:15	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103491026003A	12/23/2010	15:15	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103491026003A	12/23/2010	15:15	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103491026003A	12/23/2010	15:15	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103491026003A	12/23/2010	15:15	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103491026003A	12/23/2010	15:15	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103491026003A	12/23/2010	15:15	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103491026003C	12/23/2010	15:15	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103491026003A	12/23/2010	15:15	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103491026003B	12/23/2010	15:15	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103491026003A	12/23/2010	15:15	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103491026003A	12/23/2010	15:15	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103491026003A	12/26/2010	06:48	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	103491026003A	12/23/2010	15:15	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	103495711003	12/20/2010	05:22	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	103495708003	12/16/2010	07:00	Denise K Connors	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	103545708005	12/20/2010	20:07	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103491026003	12/16/2010	07:35	Denise K Connors	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	103495711003	12/16/2010	08:55	Denise K Connors	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10361361201A	12/29/2010	14:42	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10357357201A	12/27/2010	23:27	Ashley M Adams	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	10359243202A	12/30/2010	18:58	Ashley M Adams	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10361361201A	12/27/2010	14:40	Nancy J Shoop	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10357357201A	12/23/2010	19:30	Carolyn M Mastropietro	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10348182102B	12/14/2010	10:45	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10348039402B	12/14/2010	10:45	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10359243202A	12/25/2010	22:10	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	1	10349162401A	12/15/2010	09:13	William C Schwebel	1

\*—This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-051-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-051-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162910  
**LLI Group #** 1225037  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 13:20

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3408 SDG#: DE034-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04688	Aniline	62-53-3	180	U 180	550		1
04688	Benzidine	92-87-5	1,300	U 1,300	3,700		1
04688	Benzoic acid	65-85-0	180	U 180	550		1
04688	Benzyl alcohol	100-51-6	180	U 180	550		1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180		1
04688	Carbazole	86-74-8	18	U 18	180		1
04688	4-Chloro-3-methylphenol	59-50-7	37	U 37	180		1
04688	4-Chloroaniline	106-47-8	74	U 74	180		1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180		1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180		1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180		1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180		1
04688	2-Chlorophenol	95-57-8	18	U 18	180		1
04688	4-Chlorophenyl-phenylether	7005-72-3	37	U 37	180		1
04688	Dibenzofuran	132-64-9	18	U 18	180		1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180		1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180		1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180		1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	370		1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180		1
04688	2,4-Dimethylphenol	105-67-9	37	U 37	180		1
04688	3,5-Dimethylphenol	108-68-9	37	U 37	180		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	550		1
04688	2,4-Dinitrophenol	51-28-5	740	U 740	2,200		1
04688	2,4-Dinitrotoluene	121-14-2	37	U 37	180		1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180		1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180		1
04688	Hexachlorobenzene	118-74-1	18	U 18	180		1
04688	Hexachlorobutadiene	87-68-3	74	U 74	180		1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	550		1
04688	Hexachloroethane	67-72-1	18	U 18	180		1
04688	Isophorone	78-59-1	18	U 18	180		1
04688	2-Methylphenol	95-48-7	37	U 37	180		1
04688	4-Methylphenol	106-44-5	37	U 37	180		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	18	U 18	180		1
04688	3-Nitroaniline	99-09-2	37	U 37	180		1
04688	4-Nitroaniline	100-01-6	74	U 74	180		1
04688	Nitrobenzene	98-95-3	18	U 18	180		1
04688	2-Nitrophenol	88-75-5	18	U 18	180		1
04688	4-Nitrophenol	100-02-7	180	U 180	550		1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180		1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	180	U 180	550		1
04688	Phenol	108-95-2	18	U 18	180		1

\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-051-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-051-SA5B-SS-0.0-0.5

LLI Sample # SW 6162910  
 LLI Group # 1225037  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 13:20

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3408 SDG#: DE034-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS Semivolatiles SW-846 8270C</b>			ug/kg	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	18	U 18	180		1
04688	2,4,5-Trichlorophenol	95-95-4	37	U 37	180		1
04688	2,4,6-Trichlorophenol	88-06-2	37	U 37	180		1
<b>GC/MS Semivolatiles SW-846 8270C SIM</b>			ug/kg	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.74	U 0.74	1.8		1
10138	Acenaphthylene	208-96-8	0.37	U 0.37	1.8		1
10138	Anthracene	120-12-7	0.37	U 0.37	1.8		1
10138	Benzo(a)anthracene	56-55-3	0.74	U 0.74	1.8		1
10138	Benzo(a)pyrene	50-32-8	0.74	U 0.74	1.8		1
10138	Benzo(b)fluoranthene	205-99-2	1.1	J 0.74	1.8		1
10138	Benzo(g,h,i)perylene	191-24-2	0.74	U 0.74	1.8		1
10138	Benzo(k)fluoranthene	207-08-9	0.74	U 0.74	1.8		1
10138	Butylbenzylphthalate	85-68-7	8.6	J 6.7	20		1
10138	Di-n-butylphthalate	84-74-2	6.7	U 6.7	20		1
10138	Chrysene	218-01-9	0.92	J 0.37	1.8		1
10138	Dibenz(a,h)anthracene	53-70-3	0.74	U 0.74	1.8		1
10138	Diethylphthalate	84-66-2	6.7	U 6.7	20		1
10138	Dimethylphthalate	131-11-3	6.7	U 6.7	20		1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	23		20		1
10138	Fluoranthene	206-44-0	0.97	J 0.74	1.8		1
10138	Fluorene	86-73-7	0.74	U 0.74	1.8		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.74	U 0.74	1.8		1
10138	1-Methylnaphthalene	90-12-0	0.74	U 0.74	1.8		1
10138	2-Methylnaphthalene	91-57-6	0.74	U 0.74	1.8		1
10138	Naphthalene	91-20-3	0.74	U 0.74	1.8		1
10138	N-Nitrosodimethylamine	62-75-9	0.74	U 0.74	1.8		1
10138	Di-n-octylphthalate	117-84-0	19	J 6.7	20		1
10138	Phenanthrene	85-01-8	0.74	U 0.74	1.8		1
10138	Pyrene	129-00-0	0.95	J 0.74	1.8		1
<b>Herbicides SW-846 8151A</b>			ug/kg	ug/kg	ug/kg	ug/kg	
10401	2,4-D	94-75-7	1.3	U 1.3	4.0		1
10401	Dalapon	75-99-0	4.9	U 4.9	10		1
10401	2,4-DB	94-82-6	1.9	J 0.69	1.9		1
10401	Dicamba	1918-00-9	0.44	U 0.44	1.3		1
10401	Dinoseb	88-85-7	0.89	U 0.89	2.7		1
10401	2,4-DP (Dichlorprop)	120-36-5	0.89	U 0.89	1.9		1
10401	MCPA	94-74-6	170	J 84	280		1
10401	MCPP (Mecoprop)	93-65-2	200	J 83	280		1
10401	2,4,5-T	93-76-5	0.091	U 0.091	0.19		1
10401	2,4,5-TP	93-72-1	0.083	U 0.083	0.19		1
<p>The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported.</p>							
<b>Pesticides/PCBs SW-846 8081A</b>			ug/kg	ug/kg	ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.073	U 0.073	0.18		1
01363	Alpha BHC	319-84-6	0.038	U 0.038	0.18		1

\*—This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-051-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-051-SA5B-SS-0.0-0.5

LLI Sample # SW 6162910  
 LLI Group # 1225037  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 13:20

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3408 SDG#: DE034-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Pesticides/PCBs</b>		<b>SW-846 8081A</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
01363	Beta BHC	319-85-7	0.067 U	0.067	0.18		1
01363	Gamma BHC - Lindane	58-89-9	0.049 U	0.049	0.18		1
01363	Chlordane	57-74-9	5.7 U	5.7	5.7		1
01363	p,p-DDD	72-54-8	0.073 U	0.073	0.38		1
01363	p,p-DDE	72-55-9	0.073 U	0.073	0.38		1
01363	p,p-DDT	50-29-3	0.34 U	0.34	0.38		1
01363	Delta BHC	319-86-8	0.040 U	0.040	0.18		1
01363	Dieldrin	60-57-1	0.099 U	0.099	0.38		1
01363	Endosulfan I	959-98-8	0.049 U	0.049	0.18		1
01363	Endosulfan II	33213-65-9	0.073 U	0.073	0.38		1
01363	Endosulfan Sulfate	1031-07-8	0.097 U	0.097	0.38		1
01363	Endrin	72-20-8	0.073 U	0.073	0.38		1
01363	Endrin Aldehyde	7421-93-4	0.12 U	0.12	0.38		1
01363	Endrin Ketone	53494-70-5	0.073 U	0.073	0.38		1
01363	Heptachlor	76-44-8	0.20 U	0.20	0.20		1
01363	Heptachlor Epoxide	1024-57-3	0.28 U	0.28	0.28		1
01363	Methoxychlor	72-43-5	0.38 U	0.38	1.8		1
01363	Mirex	2385-85-5	0.17 U	0.17	0.38		1
01363	Toxaphene	8001-35-2	2.4 U	2.4	7.3		1

Various analytes in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported.

Due to interfering peaks on the chromatogram from the presence of PCBs, the values reported represent the lowest reporting limits attainable. Despite numerous cleanup methods, our usual reporting limits were not attained.

<b>Pesticides/PCBs</b>		<b>SW-846 8082</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>
10225	Aroclor 5432	63496-31-1	5.5 U	5.5	18	5
10225	Aroclor 5442	12642-23-8	5.5 U	5.5	18	5
10225	Aroclor 5460	11126-42-4	5.5 U	5.5	18	5
10225	PCB-1016	12674-11-2	1.8 U	1.8	9.4	5
10225	PCB-1221	11104-28-2	2.8 U	2.8	9.4	5
10225	PCB-1232	11141-16-5	2.9 U	2.9	9.4	5
10225	PCB-1242	53469-21-9	2.8 U	2.8	9.4	5
10225	PCB-1248	12672-29-6	23	1.8	9.4	5
10225	PCB-1254	11097-69-1	12	1.8	9.4	5
10225	PCB-1260	11096-82-5	7.7 J	1.8	9.4	5
10225	PCB-1262	37324-23-5	1.8 U	1.8	9.4	5
10225	PCB-1268	11100-14-4	1.8 U	1.8	9.4	5

The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.

<b>Metals</b>		<b>SW-846 6010B</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>
01643	Aluminum	7429-90-5	16,700	5.58	22.2	1
07914	Boron	7440-42-8	10.7	0.988	5.55	1
01650	Calcium	7440-70-2	23,000	6.80	22.2	1
01654	Iron	7439-89-6	24,000	5.23	22.2	1
01656	Lithium	7439-93-2	26.5	0.24	2.2	1
01657	Magnesium	7439-95-4	5,750	2.82	11.1	1
06958	Manganese	7439-96-5	313	0.0866	0.555	1

\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-051-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-051-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162910  
**LLI Group #** 1225037  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 13:20

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3408 SDG#: DE034-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Metals</b>							
		<b>SW-846 6010B</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
10145	Phosphorus	7723-14-0	428	0.622	11.1		1
01662	Potassium	7440-09-7	3,810	20.0	55.5		1
01667	Sodium	7440-23-5	130	41.4	111		1
07968	Strontium	7440-24-6	50.0	0.0688	0.555		1
06969	Tin	7440-31-5	2.10 J	1.11	11.1		1
06970	Titanium	7440-32-6	1,490	0.406	1.07		1
10146	Zirconium	7440-67-7	2.28 J	0.932	5.55		1
		<b>SW-846 6020</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
06124	Antimony	7440-36-0	0.127 J	0.0666	0.222		2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	6.92	0.0666	0.444		2
06126	Barium	7440-39-3	115	0.120	0.444		2
06127	Beryllium	7440-41-7	0.634	0.0178	0.111		2
06128	Cadmium	7440-43-9	0.339	0.0400	0.111		2
06131	Chromium	7440-47-3	26.8	0.133	0.444		2
06132	Cobalt	7440-48-4	7.84	0.0222	0.111		2
06133	Copper	7440-50-8	12.4	0.0733	0.444		2
06135	Lead	7439-92-1	10.6	0.0115	0.222		2
06138	Molybdenum	7439-98-7	0.668	0.0555	0.111		2
06139	Nickel	7440-02-0	17.0	0.111	0.444		2
06141	Selenium	7782-49-2	0.164 J	0.0444	0.444		2
06142	Silver	7440-22-4	0.0263 J	0.0133	0.111		2
06145	Thallium	7440-28-0	0.353	0.0333	0.111		2
06148	Vanadium	7440-62-2	38.1	0.0244	0.111		2
06149	Zinc	7440-66-6	101	0.622	3.33		2
		<b>SW-846 7471A</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
00159	Mercury	7439-97-6	0.0352 J	0.0032	0.111		1
<b>Wet Chemistry</b>							
		<b>EPA 300.0</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	2.0	0.89	1.1		1
		<b>EPA 314.0</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10147	7a Perchlorate EPA 314.0	14797-73-0	10 U	10	33.3		1
		<b>SW-846 7199</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
05892	3a Cr VI by EPA 7199	18540-29-9	1.7	0.22	1.1		1
		<b>ASTM D1498</b>	<b>mV</b>	<b>mV</b>	<b>mV</b>	<b>mV</b>	
01821	Oxidation Reduction Potential	n.a.	447	10.0	10.0		1
	The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.						

\*-This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-051-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-051-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162910  
**LLI Group #** 1225037  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 13:20

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3408 SDG#: DE034-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Wet Chemistry</b>							
		<b>SW-846 9045C modified</b>	Std. Units	Std. Units	Std. Units	Std. Units	
00394	22a pH by 9045C	n.a.	8.58	0.0100	0.0100		1
<b>Wet Chemistry</b>							
		<b>EPA 160.3 modified</b>	%	%	%	%	
11624	28a Moisture Content by 160.3	n.a.	9.9	0.50	0.50		1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.							

### General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10349SLJ026	01/04/2011 16:52	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10349SLG026	12/29/2010 08:28	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10349SLG026	12/16/2010 07:00	Joseph S Feister	1
00381	BNA Soil Sonication	SW-846 3550B	1	10349SLJ026	12/16/2010 07:00	Kerrie A Freeburn	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	103490015A	12/18/2010 07:40	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	103500011A	12/23/2010 22:33	Jamie L Brillhart	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	103500025A	12/21/2010 12:56	Lindsey K Lafferty	5
11134	Pesticide Screen Soils Ext	SW-846 3550B	2	103500011A	12/16/2010 16:50	JoElla L Rice	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	103500025A	12/17/2010 00:40	Roman Kuropatkin	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	103490015A	12/16/2010 02:10	Roman Kuropatkin	1
01643	Aluminum	SW-846 6010B	1	103495708003	12/17/2010 23:49	John W Yanzuk II	1
07914	Boron	SW-846 6010B	1	103495708003	12/17/2010 23:49	John W Yanzuk II	1
01650	Calcium	SW-846 6010B	1	103495708003	12/17/2010 23:49	John W Yanzuk II	1
01654	Iron	SW-846 6010B	1	103495708003	12/17/2010 23:49	John W Yanzuk II	1
01656	Lithium	SW-846 6010B	1	103495708003	12/17/2010 23:49	John W Yanzuk II	1
01657	Magnesium	SW-846 6010B	1	103495708003	12/17/2010 23:49	John W Yanzuk II	1
06958	Manganese	SW-846 6010B	1	103495708003	12/17/2010 23:49	John W Yanzuk II	1
10145	Phosphorus	SW-846 6010B	1	103495708003	12/17/2010 23:49	John W Yanzuk II	1
01662	Potassium	SW-846 6010B	1	103495708003	12/17/2010 23:49	John W Yanzuk II	1
01667	Sodium	SW-846 6010B	1	103495708003	12/17/2010 23:49	John W Yanzuk II	1
07968	Strontium	SW-846 6010B	1	103495708003	12/17/2010 23:49	John W Yanzuk II	1

\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-051-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-051-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162910  
**LLI Group #** 1225037  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 13:20

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3408 SDG#: DE034-08

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
06969	Tin	SW-846 6010B	1	103495708003	12/17/2010	23:49	John W Yanzuk II	1
06970	Titanium	SW-846 6010B	1	103545708005	12/21/2010	20:30	John P Hook	1
10146	Zirconium	SW-846 6010B	1	103495708003	12/17/2010	23:49	John W Yanzuk II	1
06124	Antimony	SW-846 6020	1	103491026003A	12/23/2010	15:18	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103491026003A	12/23/2010	15:18	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103491026003D	12/23/2010	15:18	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103491026003A	12/23/2010	15:18	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103491026003A	12/23/2010	15:18	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103491026003A	12/23/2010	15:18	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103491026003A	12/23/2010	15:18	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103491026003A	12/23/2010	15:18	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103491026003A	12/23/2010	15:18	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103491026003C	12/23/2010	15:18	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103491026003A	12/23/2010	15:18	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103491026003B	12/23/2010	15:18	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103491026003A	12/23/2010	15:18	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103491026003A	12/23/2010	15:18	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103491026003A	12/26/2010	06:49	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	103491026003A	12/23/2010	15:18	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	103495711003	12/20/2010	05:23	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	103495708003	12/16/2010	07:00	Denise K Conners	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	103545708005	12/20/2010	20:07	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103491026003	12/16/2010	07:35	Denise K Conners	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	103495711003	12/16/2010	08:55	Denise K Conners	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10361361201A	12/29/2010	15:24	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10357357201A	12/27/2010	23:51	Ashley M Adams	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	10359243202A	12/30/2010	19:22	Ashley M Adams	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10361361201A	12/27/2010	14:40	Nancy J Shoop	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10357357201A	12/23/2010	19:30	Carolyn M Mastropietro	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10348182102B	12/14/2010	10:45	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10348039402B	12/14/2010	10:45	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10359243202A	12/25/2010	22:10	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	1	10349162401A	12/15/2010	09:13	William C Schwebel	1

\*—This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-062-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-062-SA5B-SS-0.0-0.5

LLI Sample # SW 6162911  
 LLI Group # 1225037  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 13:00

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3409 SDG#: DE034-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04688	Aniline	62-53-3	190	U 190	580		1
04688	Benzidine	92-87-5	1,400	U 1,400	3,900		1
04688	Benzoic acid	65-85-0	190	U 190	580		1
04688	Benzyl alcohol	100-51-6	190	U 190	580		1
04688	4-Bromophenyl-phenylether	101-55-3	19	U 19	190		1
04688	Carbazole	86-74-8	19	U 19	190		1
04688	4-Chloro-3-methylphenol	59-50-7	39	U 39	190		1
04688	4-Chloroaniline	106-47-8	78	U 78	190		1
04688	bis(2-Chloroethoxy)methane	111-91-1	19	U 19	190		1
04688	bis(2-Chloroethyl)ether	111-44-4	19	U 19	190		1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	19	U 19	190		1
04688	2-Chloronaphthalene	91-58-7	19	U 19	190		1
04688	2-Chlorophenol	95-57-8	19	U 19	190		1
04688	4-Chlorophenyl-phenylether	7005-72-3	39	U 39	190		1
04688	Dibenzofuran	132-64-9	19	U 19	190		1
04688	1,2-Dichlorobenzene	95-50-1	19	U 19	190		1
04688	1,3-Dichlorobenzene	541-73-1	19	U 19	190		1
04688	1,4-Dichlorobenzene	106-46-7	19	U 19	190		1
04688	3,3'-Dichlorobenzidine	91-94-1	120	U 120	390		1
04688	2,4-Dichlorophenol	120-83-2	19	U 19	190		1
04688	2,4-Dimethylphenol	105-67-9	39	U 39	190		1
04688	3,5-Dimethylphenol	108-68-9	39	U 39	190		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	190	U 190	580		1
04688	2,4-Dinitrophenol	51-28-5	780	U 780	2,300		1
04688	2,4-Dinitrotoluene	121-14-2	39	U 39	190		1
04688	2,6-Dinitrotoluene	606-20-2	19	U 19	190		1
04688	1,2-Diphenylhydrazine	122-66-7	19	U 19	190		1
04688	Hexachlorobenzene	118-74-1	19	U 19	190		1
04688	Hexachlorobutadiene	87-68-3	78	U 78	190		1
04688	Hexachlorocyclopentadiene	77-47-4	190	U 190	580		1
04688	Hexachloroethane	67-72-1	19	U 19	190		1
04688	Isophorone	78-59-1	19	U 19	190		1
04688	2-Methylphenol	95-48-7	39	U 39	190		1
04688	4-Methylphenol	106-44-5	39	U 39	190		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	19	U 19	190		1
04688	3-Nitroaniline	99-09-2	39	U 39	190		1
04688	4-Nitroaniline	100-01-6	78	U 78	190		1
04688	Nitrobenzene	98-95-3	19	U 19	190		1
04688	2-Nitrophenol	88-75-5	19	U 19	190		1
04688	4-Nitrophenol	100-02-7	190	U 190	580		1
04688	N-Nitroso-di-n-propylamine	621-64-7	19	U 19	190		1
04688	N-Nitrosodiphenylamine	86-30-6	19	U 19	190		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	190	U 190	580		1
04688	Phenol	108-95-2	19	U 19	190		1

\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-062-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-062-SA5B-SS-0.0-0.5

LLI Sample # SW 6162911  
 LLI Group # 1225037  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 13:00

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3409 SDG#: DE034-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS Semivolatiles SW-846 8270C</b>			ug/kg	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	19	U 19	190		1
04688	2,4,5-Trichlorophenol	95-95-4	39	U 39	190		1
04688	2,4,6-Trichlorophenol	88-06-2	39	U 39	190		1
<b>GC/MS Semivolatiles SW-846 8270C SIM</b>			ug/kg	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.78	U 0.78	1.9		1
10138	Acenaphthylene	208-96-8	0.39	U 0.39	1.9		1
10138	Anthracene	120-12-7	0.39	U 0.39	1.9		1
10138	Benzo(a)anthracene	56-55-3	0.78	U 0.78	1.9		1
10138	Benzo(a)pyrene	50-32-8	0.78	U 0.78	1.9		1
10138	Benzo(b)fluoranthene	205-99-2	0.78	U 0.78	1.9		1
10138	Benzo(g,h,i)perylene	191-24-2	0.78	U 0.78	1.9		1
10138	Benzo(k)fluoranthene	207-08-9	0.78	U 0.78	1.9		1
10138	Butylbenzylphthalate	85-68-7	7.0	U 7.0	21		1
10138	Di-n-butylphthalate	84-74-2	7.0	U 7.0	21		1
10138	Chrysene	218-01-9	0.39	U 0.39	1.9		1
10138	Dibenz(a,h)anthracene	53-70-3	0.78	U 0.78	1.9		1
10138	Diethylphthalate	84-66-2	7.0	U 7.0	21		1
10138	Dimethylphthalate	131-11-3	7.0	U 7.0	21		1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	15	J 7.0	21		1
10138	Fluoranthene	206-44-0	0.78	U 0.78	1.9		1
10138	Fluorene	86-73-7	0.78	U 0.78	1.9		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.78	U 0.78	1.9		1
10138	1-Methylnaphthalene	90-12-0	0.78	U 0.78	1.9		1
10138	2-Methylnaphthalene	91-57-6	0.78	U 0.78	1.9		1
10138	Naphthalene	91-20-3	0.78	U 0.78	1.9		1
10138	N-Nitrosodimethylamine	62-75-9	0.78	U 0.78	1.9		1
10138	Di-n-octylphthalate	117-84-0	7.0	U 7.0	21		1
10138	Phenanthrene	85-01-8	0.78	U 0.78	1.9		1
10138	Pyrene	129-00-0	0.78	U 0.78	1.9		1
<b>Herbicides SW-846 8151A</b>			ug/kg	ug/kg	ug/kg	ug/kg	
10401	2,4-D	94-75-7	1.4	U 1.4	4.2		1
10401	Dalapon	75-99-0	5.1	U 5.1	11		1
10401	2,4-DB	94-82-6	0.72	U 0.72	2.0		1
10401	Dicamba	1918-00-9	0.47	U 0.47	1.4		1
10401	Dinoseb	88-85-7	0.93	U 0.93	2.8		1
10401	2,4-DP (Dichlorprop)	120-36-5	0.93	U 0.93	2.0		1
10401	MCPA	94-74-6	89	U 89	290		1
10401	MCPP (Mecoprop)	93-65-2	88	U 88	290		1
10401	2,4,5-T	93-76-5	0.096	U 0.096	0.20		1
10401	2,4,5-TP	93-72-1	0.088	U 0.088	0.20		1
<p>The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported.</p>							
<b>Pesticides/PCBs SW-846 8081A</b>			ug/kg	ug/kg	ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.077	U 0.077	0.19		1
01363	Alpha BHC	319-84-6	0.040	U 0.040	0.19		1

\*—This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-062-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-062-SA5B-SS-0.0-0.5

LLI Sample # SW 6162911  
 LLI Group # 1225037  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 13:00

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3409 SDG#: DE034-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Pesticides/PCBs</b>		<b>SW-846 8081A</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
01363	Beta BHC	319-85-7	0.070 U	0.070	0.19		1
01363	Gamma BHC - Lindane	58-89-9	0.040 U	0.040	0.19		1
01363	Chlordane	57-74-9	0.93 U	0.93	4.0		1
01363	p,p-DDD	72-54-8	0.077 U	0.077	0.40		1
01363	p,p-DDE	72-55-9	0.088 J	0.077	0.40		1
01363	p,p-DDT	50-29-3	0.29 J	0.077	0.40		1
01363	Delta BHC	319-86-8	0.042 U	0.042	0.19		1
01363	Dieldrin	60-57-1	0.077 U	0.077	0.40		1
01363	Endosulfan I	959-98-8	0.051 U	0.051	0.19		1
01363	Endosulfan II	33213-65-9	0.077 U	0.077	0.40		1
01363	Endosulfan Sulfate	1031-07-8	0.077 U	0.077	0.40		1
01363	Endrin	72-20-8	0.077 U	0.077	0.40		1
01363	Endrin Aldehyde	7421-93-4	0.077 U	0.077	0.40		1
01363	Endrin Ketone	53494-70-5	0.077 U	0.077	0.40		1
01363	Heptachlor	76-44-8	0.070 U	0.070	0.19		1
01363	Heptachlor Epoxide	1024-57-3	0.040 U	0.040	0.19		1
01363	Methoxychlor	72-43-5	0.40 U	0.40	1.9		1
01363	Mirex	2385-85-5	0.077 U	0.077	0.40		1
01363	Toxaphene	8001-35-2	2.6 U	2.6	7.7		1

The LCS recovery for p,p-DDT and methoxychlor are outside the QC limits. Results from the reextraction are within the limits for p,p-DDT and methoxychlor. The hold time had expired prior to the reextraction so all results are reported from the original extract. Similar results were obtained in both extracts for p,p-DDT and methoxychlor. Various analytes in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported.

<b>Pesticides/PCBs</b>		<b>SW-846 8082</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>
10225	Aroclor 5432	63496-31-1	1.2 U	1.2	3.9	1
10225	Aroclor 5442	12642-23-8	1.2 U	1.2	3.9	1
10225	Aroclor 5460	11126-42-4	1.2 U	1.2	3.9	1
10225	PCB-1016	12674-11-2	0.39 U	0.39	2.0	1
10225	PCB-1221	11104-28-2	0.58 U	0.58	2.0	1
10225	PCB-1232	11141-16-5	0.61 U	0.61	2.0	1
10225	PCB-1242	53469-21-9	0.58 U	0.58	2.0	1
10225	PCB-1248	12672-29-6	0.39 U	0.39	2.0	1
10225	PCB-1254	11097-69-1	0.39 U	0.39	2.0	1
10225	PCB-1260	11096-82-5	0.39 U	0.39	2.0	1
10225	PCB-1262	37324-23-5	0.39 U	0.39	2.0	1
10225	PCB-1268	11100-14-4	0.39 U	0.39	2.0	1

The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.

<b>Metals</b>		<b>SW-846 6010B</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>
01643	Aluminum	7429-90-5	22,000	5.65	22.5	1
07914	Boron	7440-42-8	14.6	1.00	5.62	1
01650	Calcium	7440-70-2	68,400	34.4	112	5
01654	Iron	7439-89-6	30,100	5.29	22.5	1
01656	Lithium	7439-93-2	24.6	0.25	2.2	1

\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-062-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-062-SA5B-SS-0.0-0.5

LLI Sample # SW 6162911  
 LLI Group # 1225037  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 13:00

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3409 SDG#: DE034-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Metals</b>							
		<b>SW-846 6010B</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
01657	Magnesium	7439-95-4	7,230	2.85	11.2		1
06958	Manganese	7439-96-5	343	0.0876	0.562		1
10145	Phosphorus	7723-14-0	590	0.629	11.2		1
01662	Potassium	7440-09-7	5,630	20.2	56.2		1
01667	Sodium	7440-23-5	147	41.9	112		1
07968	Strontium	7440-24-6	112	0.0696	0.562		1
06969	Tin	7440-31-5	1.51 J	1.12	11.2		1
06970	Titanium	7440-32-6	1,470	0.431	1.13		1
10146	Zirconium	7440-67-7	2.72 J	0.944	5.62		1
		<b>SW-846 6020</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
06124	Antimony	7440-36-0	0.0674 U	0.0674	0.225		2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	7.32	0.0674	0.449		2
06126	Barium	7440-39-3	133	0.121	0.449		2
06127	Beryllium	7440-41-7	0.724	0.0180	0.112		2
06128	Cadmium	7440-43-9	0.457	0.0404	0.112		2
06131	Chromium	7440-47-3	31.8	0.135	0.449		2
06132	Cobalt	7440-48-4	9.51	0.0225	0.112		2
06133	Copper	7440-50-8	15.8	0.0741	0.449		2
06135	Lead	7439-92-1	10.8	0.0117	0.225		2
06138	Molybdenum	7439-98-7	0.442	0.0562	0.112		2
06139	Nickel	7440-02-0	20.5	0.112	0.449		2
06141	Selenium	7782-49-2	0.344 J	0.0449	0.449		2
06142	Silver	7440-22-4	0.0359 J	0.0135	0.112		2
06145	Thallium	7440-28-0	0.411	0.0337	0.112		2
06148	Vanadium	7440-62-2	45.8	0.0247	0.112		2
06149	Zinc	7440-66-6	88.8	0.629	3.37		2
		<b>SW-846 7471A</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
00159	Mercury	7439-97-6	0.0031 U	0.0031	0.109		1
<b>Wet Chemistry</b>							
		<b>EPA 300.0</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	3.7	0.93	1.2		1
		<b>EPA 314.0</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10147	7a Perchlorate EPA 314.0	14797-73-0	10.5 U	10.5	35.0		1
		<b>SW-846 7199</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
05892	3a Cr VI by EPA 7199	18540-29-9	0.23 U	0.23	1.2		1
		<b>ASTM D1498</b>	<b>mV</b>	<b>mV</b>	<b>mV</b>	<b>mV</b>	
01821	Oxidation Reduction Potential	n.a.	454	10.0	10.0		1
	The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.						

\*=This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-062-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-062-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162911  
**LLI Group #** 1225037  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 13:00

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3409 SDG#: DE034-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Wet Chemistry</b>							
		<b>SW-846 9045C modified</b>	Std. Units	Std. Units	Std. Units	Std. Units	
00394	22a pH by 9045C	n.a.	8.45	0.0100	0.0100		1
<b>Wet Chemistry</b>							
		<b>EPA 160.3 modified</b>	%	%	%	%	
11624	28a Moisture Content by 160.3	n.a.	14.4	0.50	0.50		1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.							

### General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10349SLJ026	01/04/2011 17:17	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10349SLG026	12/29/2010 09:02	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10349SLG026	12/16/2010 07:00	Joseph S Feister	1
00381	BNA Soil Sonication	SW-846 3550B	1	10349SLJ026	12/16/2010 07:00	Kerrie A Freeburn	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	103490015A	12/18/2010 08:07	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	103500011A	12/23/2010 22:47	Jamie L Brillhart	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	103500025A	12/21/2010 13:14	Lindsey K Lafferty	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	103500011A	12/16/2010 16:50	JoElla L Rice	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	103500025A	12/17/2010 00:40	Roman Kuropatkin	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	103490015A	12/16/2010 02:10	Roman Kuropatkin	1
01643	Aluminum	SW-846 6010B	1	103495708003	12/17/2010 23:53	John W Yanzuk II	1
07914	Boron	SW-846 6010B	1	103495708003	12/17/2010 23:53	John W Yanzuk II	1
01650	Calcium	SW-846 6010B	1	103495708003	12/20/2010 13:01	Joanne M Gates	5
01654	Iron	SW-846 6010B	1	103495708003	12/17/2010 23:53	John W Yanzuk II	1
01656	Lithium	SW-846 6010B	1	103495708003	12/17/2010 23:53	John W Yanzuk II	1
01657	Magnesium	SW-846 6010B	1	103495708003	12/17/2010 23:53	John W Yanzuk II	1
06958	Manganese	SW-846 6010B	1	103495708003	12/17/2010 23:53	John W Yanzuk II	1
10145	Phosphorus	SW-846 6010B	1	103495708003	12/17/2010 23:53	John W Yanzuk II	1
01662	Potassium	SW-846 6010B	1	103495708003	12/17/2010 23:53	John W Yanzuk II	1
01667	Sodium	SW-846 6010B	1	103495708003	12/17/2010 23:53	John W Yanzuk II	1

\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-062-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-062-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162911  
**LLI Group #** 1225037  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 13:00

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3409 SDG#: DE034-09

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
07968	Strontium	SW-846 6010B	1	103495708003	12/17/2010	23:53	John W Yanzuk II	1
06969	Tin	SW-846 6010B	1	103495708003	12/17/2010	23:53	John W Yanzuk II	1
06970	Titanium	SW-846 6010B	1	103545708005	12/21/2010	20:34	John P Hook	1
10146	Zirconium	SW-846 6010B	1	103495708003	12/17/2010	23:53	John W Yanzuk II	1
06124	Antimony	SW-846 6020	1	103491026003A	12/23/2010	15:21	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103491026003A	12/23/2010	15:21	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103491026003D	12/23/2010	15:21	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103491026003A	12/23/2010	15:21	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103491026003A	12/23/2010	15:21	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103491026003A	12/23/2010	15:21	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103491026003A	12/23/2010	15:21	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103491026003A	12/23/2010	15:21	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103491026003A	12/23/2010	15:21	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103491026003C	12/23/2010	15:21	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103491026003A	12/23/2010	15:21	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103491026003B	12/23/2010	15:21	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103491026003A	12/23/2010	15:21	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103491026003A	12/23/2010	15:21	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103491026003A	12/26/2010	06:51	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	103491026003A	12/23/2010	15:21	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	103495711003	12/20/2010	05:24	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	103495708003	12/16/2010	07:00	Denise K Conners	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	103545708005	12/20/2010	20:07	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103491026003	12/16/2010	07:35	Denise K Conners	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	103495711003	12/16/2010	08:55	Denise K Conners	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10362362202A	12/30/2010	11:55	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10357357201A	12/28/2010	00:15	Ashley M Adams	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	10359243202A	12/30/2010	20:34	Ashley M Adams	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10362362202A	12/28/2010	11:00	Erik J Frederiksen	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10357357201A	12/23/2010	19:30	Carolyn M Mastropietro	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10348182102B	12/14/2010	10:45	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10348039402B	12/14/2010	10:45	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10359243202A	12/25/2010	22:10	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	1	10349162401A	12/15/2010	09:13	William C Schwebel	1

\*—This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-064-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-064-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162912  
**LLI Group #** 1225037  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 13:15

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3410 SDG#: DE034-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04688	Aniline	62-53-3	190	U 190	560		1
04688	Benzidine	92-87-5	1,300	U 1,300	3,700		1
04688	Benzo(a)pyrene	50-32-8	58	J 19	190		1
04688	Benzoic acid	65-85-0	190	U 190	560		1
04688	Benzyl alcohol	100-51-6	190	U 190	560		1
04688	4-Bromophenyl-phenylether	101-55-3	19	U 19	190		1
04688	Carbazole	86-74-8	19	U 19	190		1
04688	4-Chloro-3-methylphenol	59-50-7	37	U 37	190		1
04688	4-Chloroaniline	106-47-8	75	U 75	190		1
04688	bis(2-Chloroethoxy)methane	111-91-1	19	U 19	190		1
04688	bis(2-Chloroethyl)ether	111-44-4	19	U 19	190		1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	19	U 19	190		1
04688	2-Chloronaphthalene	91-58-7	19	U 19	190		1
04688	2-Chlorophenol	95-57-8	19	U 19	190		1
04688	4-Chlorophenyl-phenylether	7005-72-3	37	U 37	190		1
04688	Dibenzofuran	132-64-9	19	U 19	190		1
04688	1,2-Dichlorobenzene	95-50-1	19	U 19	190		1
04688	1,3-Dichlorobenzene	541-73-1	19	U 19	190		1
04688	1,4-Dichlorobenzene	106-46-7	19	U 19	190		1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	370		1
04688	2,4-Dichlorophenol	120-83-2	19	U 19	190		1
04688	2,4-Dimethylphenol	105-67-9	37	U 37	190		1
04688	3,5-Dimethylphenol	108-68-9	37	U 37	190		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	190	U 190	560		1
04688	2,4-Dinitrophenol	51-28-5	750	U 750	2,200		1
04688	2,4-Dinitrotoluene	121-14-2	37	U 37	190		1
04688	2,6-Dinitrotoluene	606-20-2	19	U 19	190		1
04688	1,2-Diphenylhydrazine	122-66-7	19	U 19	190		1
04688	Hexachlorobenzene	118-74-1	19	U 19	190		1
04688	Hexachlorobutadiene	87-68-3	75	U 75	190		1
04688	Hexachlorocyclopentadiene	77-47-4	190	U 190	560		1
04688	Hexachloroethane	67-72-1	19	U 19	190		1
04688	Isophorone	78-59-1	19	U 19	190		1
04688	2-Methylphenol	95-48-7	37	U 37	190		1
04688	4-Methylphenol	106-44-5	37	U 37	190		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	19	U 19	190		1
04688	3-Nitroaniline	99-09-2	37	U 37	190		1
04688	4-Nitroaniline	100-01-6	75	U 75	190		1
04688	Nitrobenzene	98-95-3	19	U 19	190		1
04688	2-Nitrophenol	88-75-5	19	U 19	190		1
04688	4-Nitrophenol	100-02-7	190	U 190	560		1
04688	N-Nitroso-di-n-propylamine	621-64-7	19	U 19	190		1
04688	N-Nitrosodiphenylamine	86-30-6	19	U 19	190		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	190	U 190	560		1

\*=This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description: SL-064-SA5B-SS-0.0-0.5 Soil**  
**SSFL Area IV Collocated Soil Sampling**  
**SL-064-SA5B-SS-0.0-0.5**

**LLI Sample # SW 6162912**  
**LLI Group # 1225037**  
**Account # 13013**

**Project Name: SSFL Area IV Collocated Soil Sampling**

Collected: 12/10/2010 13:15

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3410 SDG#: DE034-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04688	Phenol	108-95-2	19	U 19	190		1
04688	1,2,4-Trichlorobenzene	120-82-1	19	U 19	190		1
04688	2,4,5-Trichlorophenol	95-95-4	37	U 37	190		1
04688	2,4,6-Trichlorophenol	88-06-2	37	U 37	190		1
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C SIM</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10138	Acenaphthene	83-32-9	0.75	U 0.75	1.9		1
10138	Acenaphthylene	208-96-8	0.37	U 0.37	1.9		1
10138	Anthracene	120-12-7	0.37	U 0.37	1.9		1
10138	Benzo(a)anthracene	56-55-3	0.75	U 0.75	1.9		1
10138	Benzo(b)fluoranthene	205-99-2	2.3	0.75	1.9		1
10138	Benzo(g,h,i)perylene	191-24-2	1.9	0.75	1.9		1
10138	Benzo(k)fluoranthene	207-08-9	0.75	U 0.75	1.9		1
10138	Butylbenzylphthalate	85-68-7	7.8	J 6.7	20		1
10138	Di-n-butylphthalate	84-74-2	6.7	U 6.7	20		1
10138	Chrysene	218-01-9	1.6	J 0.37	1.9		1
10138	Dibenz(a,h)anthracene	53-70-3	0.75	U 0.75	1.9		1
10138	Diethylphthalate	84-66-2	6.7	U 6.7	20		1
10138	Dimethylphthalate	131-11-3	6.7	U 6.7	20		1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	11	J 6.7	20		1
10138	Fluoranthene	206-44-0	1.2	J 0.75	1.9		1
10138	Fluorene	86-73-7	0.75	U 0.75	1.9		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.75	U 0.75	1.9		1
10138	1-Methylnaphthalene	90-12-0	0.75	U 0.75	1.9		1
10138	2-Methylnaphthalene	91-57-6	0.75	U 0.75	1.9		1
10138	Naphthalene	91-20-3	0.75	U 0.75	1.9		1
10138	N-Nitrosodimethylamine	62-75-9	0.75	U 0.75	1.9		1
10138	Di-n-octylphthalate	117-84-0	6.7	U 6.7	20		1
10138	Phenanthrene	85-01-8	0.75	U 0.75	1.9		1
10138	Pyrene	129-00-0	1.1	J 0.75	1.9		1
<b>Herbicides</b>	<b>SW-846 8151A</b>		<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10401	2,4-D	94-75-7	1.3	U 1.3	4.0		1
10401	Dalapon	75-99-0	4.9	U 4.9	10		1
10401	2,4-DB	94-82-6	0.69	U 0.69	1.9		1
10401	Dicamba	1918-00-9	0.45	U 0.45	1.3		1
10401	Dinoseb	88-85-7	0.90	U 0.90	2.7		1
10401	2,4-DP (Dichlorprop)	120-36-5	0.90	U 0.90	1.9		1
10401	MCPA	94-74-6	85	U 85	280		1
10401	MCPP (Mecoprop)	93-65-2	84	U 84	280		1
10401	2,4,5-T	93-76-5	0.092	U 0.092	0.19		1
10401	2,4,5-TP	93-72-1	0.084	U 0.084	0.19		1
<p>The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported.</p>							
<b>Pesticides/PCBs</b>	<b>SW-846 8081A</b>		<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
01363	Aldrin	309-00-2	0.074	U 0.074	0.19		1
01363	Alpha BHC	319-84-6	0.038	U 0.038	0.19		1

\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-064-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-064-SA5B-SS-0.0-0.5

LLI Sample # SW 6162912  
 LLI Group # 1225037  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 13:15

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3410 SDG#: DE034-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Pesticides/PCBs</b>		<b>SW-846 8081A</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
01363	Beta BHC	319-85-7	0.067 U	0.067	0.19		1
01363	Gamma BHC - Lindane	58-89-9	0.038 U	0.038	0.19		1
01363	Chlordane	57-74-9	0.90 U	0.90	3.8		1
01363	p,p-DDD	72-54-8	0.074 U	0.074	0.38		1
01363	p,p-DDE	72-55-9	0.074 U	0.074	0.38		1
01363	p,p-DDT	50-29-3	0.33 U	0.33	0.38		1
01363	Delta BHC	319-86-8	0.040 U	0.040	0.19		1
01363	Dieldrin	60-57-1	0.16 U	0.16	0.38		1
01363	Endosulfan I	959-98-8	0.049 U	0.049	0.19		1
01363	Endosulfan II	33213-65-9	0.074 U	0.074	0.38		1
01363	Endosulfan Sulfate	1031-07-8	0.083 U	0.083	0.38		1
01363	Endrin	72-20-8	0.074 U	0.074	0.38		1
01363	Endrin Aldehyde	7421-93-4	0.18 U	0.18	0.38		1
01363	Endrin Ketone	53494-70-5	0.074 U	0.074	0.38		1
01363	Heptachlor	76-44-8	0.067 U	0.067	0.19		1
01363	Heptachlor Epoxide	1024-57-3	0.038 U	0.038	0.19		1
01363	Methoxychlor	72-43-5	0.38 U	0.38	1.9		1
01363	Mirex	2385-85-5	0.18 U	0.18	0.38		1
01363	Toxaphene	8001-35-2	2.5 U	2.5	7.4		1

Various analytes in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported.

Due to interfering peaks on the chromatogram from the presence of PCBs, the values reported represent the lowest reporting limits attainable. Despite numerous cleanup methods, our usual reporting limits were not attained.

<b>Pesticides/PCBs</b>		<b>SW-846 8082</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.7	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.7	1
10225	Aroclor 5460	11126-42-4	2.6 J	1.1	3.7	1
10225	PCB-1016	12674-11-2	0.37 U	0.37	1.9	1
10225	PCB-1221	11104-28-2	0.56 U	0.56	1.9	1
10225	PCB-1232	11141-16-5	0.58 U	0.58	1.9	1
10225	PCB-1242	53469-21-9	0.56 U	0.56	1.9	1
10225	PCB-1248	12672-29-6	0.37 U	0.37	1.9	1
10225	PCB-1254	11097-69-1	7.1	0.37	1.9	1
10225	PCB-1260	11096-82-5	5.7	0.37	1.9	1
10225	PCB-1262	37324-23-5	0.37 U	0.37	1.9	1
10225	PCB-1268	11100-14-4	0.37 U	0.37	1.9	1

The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.

<b>Metals</b>		<b>SW-846 6010B</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>
01643	Aluminum	7429-90-5	16,200	5.42	21.5	1
07914	Boron	7440-42-8	10.6	0.958	5.38	1
01650	Calcium	7440-70-2	20,300	6.60	21.5	1
01654	Iron	7439-89-6	25,100	5.07	21.5	1
01656	Lithium	7439-93-2	25.6	0.24	2.2	1
01657	Magnesium	7439-95-4	6,150	2.73	10.8	1
06958	Manganese	7439-96-5	344	0.0840	0.538	1

\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-064-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-064-SA5B-SS-0.0-0.5

LLI Sample # SW 6162912  
 LLI Group # 1225037  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 13:15

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3410 SDG#: DE034-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Metals</b>							
		<b>SW-846 6010B</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
10145	Phosphorus	7723-14-0	528	0.603	10.8		1
01662	Potassium	7440-09-7	5,080	19.4	53.8		1
01667	Sodium	7440-23-5	156	40.2	108		1
07968	Strontium	7440-24-6	43.0	0.0668	0.538		1
06969	Tin	7440-31-5	1.79 J	1.08	10.8		1
06970	Titanium	7440-32-6	1,380	0.413	1.09		1
10146	Zirconium	7440-67-7	2.11 J	0.904	5.38		1
		<b>SW-846 6020</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
06124	Antimony	7440-36-0	0.0771 J	0.0665	0.222		2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	6.89	0.0665	0.443		2
06126	Barium	7440-39-3	120	0.120	0.443		2
06127	Beryllium	7440-41-7	0.628	0.0177	0.111		2
06128	Cadmium	7440-43-9	0.339	0.0399	0.111		2
06131	Chromium	7440-47-3	29.5	0.133	0.443		2
06132	Cobalt	7440-48-4	9.34	0.0222	0.111		2
06133	Copper	7440-50-8	15.3	0.0732	0.443		2
06135	Lead	7439-92-1	10.4	0.0115	0.222		2
06138	Molybdenum	7439-98-7	0.611	0.0554	0.111		2
06139	Nickel	7440-02-0	19.4	0.111	0.443		2
06141	Selenium	7782-49-2	0.187 J	0.0443	0.443		2
06142	Silver	7440-22-4	0.0352 J	0.0133	0.111		2
06145	Thallium	7440-28-0	0.386	0.0333	0.111		2
06148	Vanadium	7440-62-2	41.2	0.0244	0.111		2
06149	Zinc	7440-66-6	101	0.621	3.33		2
		<b>SW-846 7471A</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
00159	Mercury	7439-97-6	0.0124 J	0.0032	0.111		1
<b>Wet Chemistry</b>							
		<b>EPA 300.0</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	3.9	0.90	1.1		1
		<b>EPA 314.0</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10147	7a Perchlorate EPA 314.0	14797-73-0	10.1 U	10.1	33.6		1
		<b>SW-846 7199</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
05892	3a Cr VI by EPA 7199	18540-29-9	0.34 J	0.22	1.1		1
		<b>ASTM D1498</b>	<b>mV</b>	<b>mV</b>	<b>mV</b>	<b>mV</b>	
01821	Oxidation Reduction Potential	n.a.	436	10.0	10.0		1
	The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.						

\*-This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-064-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-064-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162912  
**LLI Group #** 1225037  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 13:15

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3410 SDG#: DE034-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Wet Chemistry</b>							
		<b>SW-846 9045C modified</b>	Std. Units	Std. Units	Std. Units	Std. Units	
00394	22a pH by 9045C	n.a.	8.67	0.0100	0.0100		1
<b>Wet Chemistry</b>							
		<b>EPA 160.3 modified</b>	%	%	%	%	
11624	28a Moisture Content by 160.3	n.a.	10.7	0.50	0.50		1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.							

### General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10349SLJ026	01/04/2011 17:43	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10349SLG026	12/29/2010 14:16	Chad A Moline	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10349SLG026	12/16/2010 07:00	Joseph S Feister	1
00381	BNA Soil Sonication	SW-846 3550B	1	10349SLJ026	12/16/2010 07:00	Kerrie A Freeburn	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	103490015A	12/18/2010 08:35	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	103500011A	12/23/2010 23:01	Jamie L Brillhart	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	103500025A	12/21/2010 13:33	Lindsey K Lafferty	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	2	103500011A	12/16/2010 16:50	JoElla L Rice	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	103500025A	12/17/2010 00:40	Roman Kuropatkin	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	103490015A	12/16/2010 02:10	Roman Kuropatkin	1
01643	Aluminum	SW-846 6010B	1	103495708003	12/17/2010 23:57	John W Yanzuk II	1
07914	Boron	SW-846 6010B	1	103495708003	12/17/2010 23:57	John W Yanzuk II	1
01650	Calcium	SW-846 6010B	1	103495708003	12/17/2010 23:57	John W Yanzuk II	1
01654	Iron	SW-846 6010B	1	103495708003	12/17/2010 23:57	John W Yanzuk II	1
01656	Lithium	SW-846 6010B	1	103495708003	12/17/2010 23:57	John W Yanzuk II	1
01657	Magnesium	SW-846 6010B	1	103495708003	12/17/2010 23:57	John W Yanzuk II	1
06958	Manganese	SW-846 6010B	1	103495708003	12/17/2010 23:57	John W Yanzuk II	1
10145	Phosphorus	SW-846 6010B	1	103495708003	12/17/2010 23:57	John W Yanzuk II	1
01662	Potassium	SW-846 6010B	1	103495708003	12/17/2010 23:57	John W Yanzuk II	1
01667	Sodium	SW-846 6010B	1	103495708003	12/17/2010 23:57	John W Yanzuk II	1
07968	Strontium	SW-846 6010B	1	103495708003	12/17/2010 23:57	John W Yanzuk II	1
06969	Tin	SW-846 6010B	1	103495708003	12/17/2010 23:57	John W Yanzuk II	1

\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-064-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-064-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162912  
**LLI Group #** 1225037  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 13:15

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3410 SDG#: DE034-10

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
06970	Titanium	SW-846 6010B	1	103545708005	12/21/2010	20:38	John P Hook	1
10146	Zirconium	SW-846 6010B	1	103495708003	12/17/2010	23:57	John W Yanzuk II	1
06124	Antimony	SW-846 6020	1	103491026003A	12/23/2010	15:24	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103491026003A	12/23/2010	15:24	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103491026003D	12/23/2010	15:24	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103491026003A	12/23/2010	15:24	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103491026003A	12/23/2010	15:24	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103491026003A	12/23/2010	15:24	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103491026003A	12/23/2010	15:24	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103491026003A	12/23/2010	15:24	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103491026003A	12/23/2010	15:24	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103491026003C	12/23/2010	15:24	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103491026003A	12/23/2010	15:24	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103491026003B	12/23/2010	15:24	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103491026003A	12/23/2010	15:24	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103491026003A	12/23/2010	15:24	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103491026003A	12/26/2010	06:53	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	103491026003A	12/23/2010	15:24	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	103495711003	12/20/2010	05:25	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	103495708003	12/16/2010	07:00	Denise K Conners	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	103545708005	12/20/2010	20:07	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103491026003	12/16/2010	07:35	Denise K Conners	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	103495711003	12/16/2010	08:55	Denise K Conners	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10362362202A	12/30/2010	13:06	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10357357201A	12/28/2010	00:39	Ashley M Adams	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	10359243202A	12/30/2010	20:58	Ashley M Adams	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10362362202A	12/28/2010	11:00	Erik J Frederiksen	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10357357201A	12/23/2010	19:30	Carolyn M Mastropietro	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10348182102B	12/14/2010	10:45	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10348039402B	12/14/2010	10:45	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10359243202A	12/25/2010	22:10	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	1	10349162401A	12/15/2010	09:13	William C Schwebel	1

\*—This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-232-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-232-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162913  
**LLI Group #** 1225037  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 12:59

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3411 SDG#: DE034-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04688	Aniline	62-53-3	190	U 190	580		1
04688	Benzidine	92-87-5	1,300	U 1,300	3,800		1
04688	Benzoic acid	65-85-0	190	U 190	580		1
04688	Benzyl alcohol	100-51-6	190	U 190	580		1
04688	4-Bromophenyl-phenylether	101-55-3	19	U 19	190		1
04688	Carbazole	86-74-8	19	U 19	190		1
04688	4-Chloro-3-methylphenol	59-50-7	38	U 38	190		1
04688	4-Chloroaniline	106-47-8	77	U 77	190		1
04688	bis(2-Chloroethoxy)methane	111-91-1	19	U 19	190		1
04688	bis(2-Chloroethyl)ether	111-44-4	19	U 19	190		1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	19	U 19	190		1
04688	2-Chloronaphthalene	91-58-7	19	U 19	190		1
04688	2-Chlorophenol	95-57-8	19	U 19	190		1
04688	4-Chlorophenyl-phenylether	7005-72-3	38	U 38	190		1
04688	Chrysene	218-01-9	21	J 19	190		1
04688	Dibenzofuran	132-64-9	19	U 19	190		1
04688	1,2-Dichlorobenzene	95-50-1	19	U 19	190		1
04688	1,3-Dichlorobenzene	541-73-1	19	U 19	190		1
04688	1,4-Dichlorobenzene	106-46-7	19	U 19	190		1
04688	3,3'-Dichlorobenzidine	91-94-1	120	U 120	380		1
04688	2,4-Dichlorophenol	120-83-2	19	U 19	190		1
04688	2,4-Dimethylphenol	105-67-9	38	U 38	190		1
04688	3,5-Dimethylphenol	108-68-9	38	U 38	190		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	190	U 190	580		1
04688	2,4-Dinitrophenol	51-28-5	770	U 770	2,300		1
04688	2,4-Dinitrotoluene	121-14-2	38	U 38	190		1
04688	2,6-Dinitrotoluene	606-20-2	19	U 19	190		1
04688	1,2-Diphenylhydrazine	122-66-7	19	U 19	190		1
04688	Hexachlorobenzene	118-74-1	19	U 19	190		1
04688	Hexachlorobutadiene	87-68-3	77	U 77	190		1
04688	Hexachlorocyclopentadiene	77-47-4	190	U 190	580		1
04688	Hexachloroethane	67-72-1	19	U 19	190		1
04688	Isophorone	78-59-1	19	U 19	190		1
04688	2-Methylphenol	95-48-7	38	U 38	190		1
04688	4-Methylphenol	106-44-5	38	U 38	190		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	19	U 19	190		1
04688	3-Nitroaniline	99-09-2	38	U 38	190		1
04688	4-Nitroaniline	100-01-6	77	U 77	190		1
04688	Nitrobenzene	98-95-3	19	U 19	190		1
04688	2-Nitrophenol	88-75-5	19	U 19	190		1
04688	4-Nitrophenol	100-02-7	190	U 190	580		1
04688	N-Nitroso-di-n-propylamine	621-64-7	19	U 19	190		1
04688	N-Nitrosodiphenylamine	86-30-6	19	U 19	190		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	190	U 190	580		1

\*=This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-232-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-232-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162913  
**LLI Group #** 1225037  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 12:59

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3411 SDG#: DE034-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04688	Phenol	108-95-2	19	U 19	190		1
04688	1,2,4-Trichlorobenzene	120-82-1	19	U 19	190		1
04688	2,4,5-Trichlorophenol	95-95-4	38	U 38	190		1
04688	2,4,6-Trichlorophenol	88-06-2	38	U 38	190		1
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C SIM</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10138	Acenaphthene	83-32-9	0.77	U 0.77	1.9		1
10138	Acenaphthylene	208-96-8	0.38	U 0.38	1.9		1
10138	Anthracene	120-12-7	0.38	U 0.38	1.9		1
10138	Benzo(a)anthracene	56-55-3	0.77	U 0.77	1.9		1
10138	Benzo(a)pyrene	50-32-8	0.77	U 0.77	1.9		1
10138	Benzo(b)fluoranthene	205-99-2	2.1	U 0.77	1.9		1
10138	Benzo(g,h,i)perylene	191-24-2	1.1	J 0.77	1.9		1
10138	Benzo(k)fluoranthene	207-08-9	0.77	U 0.77	1.9		1
10138	Butylbenzylphthalate	85-68-7	6.9	U 6.9	21		1
10138	Di-n-butylphthalate	84-74-2	6.9	U 6.9	21		1
10138	Dibenz(a,h)anthracene	53-70-3	0.77	U 0.77	1.9		1
10138	Diethylphthalate	84-66-2	6.9	U 6.9	21		1
10138	Dimethylphthalate	131-11-3	6.9	U 6.9	21		1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	12	J 6.9	21		1
10138	Fluoranthene	206-44-0	1.2	J 0.77	1.9		1
10138	Fluorene	86-73-7	0.77	U 0.77	1.9		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.77	U 0.77	1.9		1
10138	1-Methylnaphthalene	90-12-0	0.77	U 0.77	1.9		1
10138	2-Methylnaphthalene	91-57-6	0.77	U 0.77	1.9		1
10138	Naphthalene	91-20-3	0.77	U 0.77	1.9		1
10138	N-Nitrosodimethylamine	62-75-9	0.77	U 0.77	1.9		1
10138	Di-n-octylphthalate	117-84-0	6.9	U 6.9	21		1
10138	Phenanthrene	85-01-8	0.77	U 0.77	1.9		1
10138	Pyrene	129-00-0	0.90	J 0.77	1.9		1
<b>Herbicides</b>	<b>SW-846 8151A</b>		<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10401	2,4-D	94-75-7	1.4	U 1.4	4.1		1
10401	Dalapon	75-99-0	5.1	U 5.1	10		1
10401	2,4-DB	94-82-6	1.0	J 0.71	2.0		1
10401	Dicamba	1918-00-9	0.46	U 0.46	1.4		1
10401	Dinoseb	88-85-7	0.92	U 0.92	2.8		1
10401	2,4-DP (Dichlorprop)	120-36-5	0.92	U 0.92	2.0		1
10401	MCPA	94-74-6	200	J 88	290		1
10401	MCPP (Mecoprop)	93-65-2	86	U 86	290		1
10401	2,4,5-T	93-76-5	0.094	U 0.094	0.20		1
10401	2,4,5-TP	93-72-1	0.086	U 0.086	0.20		1
The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported.							
<b>Pesticides/PCBs</b>	<b>SW-846 8081A</b>		<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
01363	Aldrin	309-00-2	0.076	U 0.076	0.19		1
01363	Alpha BHC	319-84-6	0.039	U 0.039	0.19		1

\*=This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-232-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-232-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162913  
**LLI Group #** 1225037  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 12:59

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3411 SDG#: DE034-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Pesticides/PCBs</b>		<b>SW-846 8081A</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
01363	Beta BHC	319-85-7	0.069 U	0.069	0.19		1
01363	Gamma BHC - Lindane	58-89-9	0.039 U	0.039	0.19		1
01363	Chlordane	57-74-9	0.92 U	0.92	3.9		1
01363	p,p-DDD	72-54-8	0.076 U	0.076	0.39		1
01363	p,p-DDE	72-55-9	0.076 U	0.076	0.39		1
01363	p,p-DDT	50-29-3	0.18 U	0.18	0.39		1
01363	Delta BHC	319-86-8	0.041 U	0.041	0.19		1
01363	Dieldrin	60-57-1	0.076 U	0.076	0.39		1
01363	Endosulfan I	959-98-8	0.051 U	0.051	0.19		1
01363	Endosulfan II	33213-65-9	0.076 U	0.076	0.39		1
01363	Endosulfan Sulfate	1031-07-8	0.076 U	0.076	0.39		1
01363	Endrin	72-20-8	0.076 U	0.076	0.39		1
01363	Endrin Aldehyde	7421-93-4	0.076 U	0.076	0.39		1
01363	Endrin Ketone	53494-70-5	0.076 U	0.076	0.39		1
01363	Heptachlor	76-44-8	0.069 U	0.069	0.19		1
01363	Heptachlor Epoxide	1024-57-3	0.039 U	0.039	0.19		1
01363	Methoxychlor	72-43-5	0.39 U	0.39	1.9		1
01363	Mirex	2385-85-5	0.21 U	0.21	0.39		1
01363	Toxaphene	8001-35-2	2.5 U	2.5	7.6		1

Various analytes in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported.

Due to interfering peaks on the chromatogram from the presence of PCBs, the values reported represent the lowest reporting limits attainable. Despite numerous cleanup methods, our usual reporting limits were not attained.

<b>Pesticides/PCBs</b>		<b>SW-846 8082</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>
10225	Aroclor 5432	63496-31-1	1.2 U	1.2	3.8	1
10225	Aroclor 5442	12642-23-8	1.2 U	1.2	3.8	1
10225	Aroclor 5460	11126-42-4	1.6 J	1.2	3.8	1
10225	PCB-1016	12674-11-2	0.38 U	0.38	2.0	1
10225	PCB-1221	11104-28-2	0.58 U	0.58	2.0	1
10225	PCB-1232	11141-16-5	0.60 U	0.60	2.0	1
10225	PCB-1242	53469-21-9	0.58 U	0.58	2.0	1
10225	PCB-1248	12672-29-6	1.9 J	0.38	2.0	1
10225	PCB-1254	11097-69-1	0.38 U	0.38	2.0	1
10225	PCB-1260	11096-82-5	4.4	0.38	2.0	1
10225	PCB-1262	37324-23-5	0.38 U	0.38	2.0	1
10225	PCB-1268	11100-14-4	0.38 U	0.38	2.0	1

The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.

<b>Metals</b>		<b>SW-846 6010B</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>
01643	Aluminum	7429-90-5	20,200	5.68	22.6	1
07914	Boron	7440-42-8	14.0	1.01	5.65	1
01650	Calcium	7440-70-2	48,700	6.92	22.6	1
01654	Iron	7439-89-6	27,100	5.32	22.6	1
01656	Lithium	7439-93-2	25.8	0.25	2.3	1
01657	Magnesium	7439-95-4	6,920	2.87	11.3	1
06958	Manganese	7439-96-5	339	0.0881	0.565	1

\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-232-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-232-SA5B-SS-0.0-0.5

LLI Sample # SW 6162913  
 LLI Group # 1225037  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 12:59

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3411 SDG#: DE034-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Metals</b>							
		<b>SW-846 6010B</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
10145	Phosphorus	7723-14-0	557	0.633	11.3		1
01662	Potassium	7440-09-7	5,080	20.3	56.5		1
01667	Sodium	7440-23-5	121	42.1	113		1
07968	Strontium	7440-24-6	91.8	0.0700	0.565		1
06969	Tin	7440-31-5	2.06 J	1.13	11.3		1
06970	Titanium	7440-32-6	1,540	0.429	1.13		1
10146	Zirconium	7440-67-7	3.22 J	0.949	5.65		1
		<b>SW-846 6020</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
06124	Antimony	7440-36-0	0.0843 J	0.0671	0.224		2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	7.13	0.0671	0.447		2
06126	Barium	7440-39-3	134	0.121	0.447		2
06127	Beryllium	7440-41-7	0.660	0.0179	0.112		2
06128	Cadmium	7440-43-9	0.470	0.0403	0.112		2
06131	Chromium	7440-47-3	30.5	0.134	0.447		2
06132	Cobalt	7440-48-4	9.76	0.0224	0.112		2
06133	Copper	7440-50-8	16.7	0.0738	0.447		2
06135	Lead	7439-92-1	11.8	0.0116	0.224		2
06138	Molybdenum	7439-98-7	0.686	0.0559	0.112		2
06139	Nickel	7440-02-0	20.1	0.112	0.447		2
06141	Selenium	7782-49-2	0.244 J	0.0447	0.447		2
06142	Silver	7440-22-4	0.0305 J	0.0134	0.112		2
06145	Thallium	7440-28-0	0.393	0.0336	0.112		2
06148	Vanadium	7440-62-2	41.4	0.0246	0.112		2
06149	Zinc	7440-66-6	167	0.626	3.36		2
		<b>SW-846 7471A</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
00159	Mercury	7439-97-6	0.0050 J	0.0031	0.107		1
<b>Wet Chemistry</b>							
		<b>EPA 300.0</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.8	0.92	1.2		1
		<b>EPA 314.0</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10147	7a Perchlorate EPA 314.0	14797-73-0	10.4 U	10.4	34.6		1
		<b>SW-846 7199</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
05892	3a Cr VI by EPA 7199	18540-29-9	0.50 J	0.23	1.2		1
		<b>ASTM D1498</b>	<b>mV</b>	<b>mV</b>	<b>mV</b>	<b>mV</b>	
01821	Oxidation Reduction Potential	n.a.	414	10.0	10.0		1
	The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.						

\*-This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.



# Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

**Sample Description:** SL-232-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-232-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162913  
**LLI Group #** 1225037  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 12:59

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3411 SDG#: DE034-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Wet Chemistry</b>							
		<b>SW-846 9045C modified</b>	Std. Units	Std. Units	Std. Units	Std. Units	
00394	22a pH by 9045C	n.a.	8.41	0.0100	0.0100		1
<b>Wet Chemistry</b>							
		<b>EPA 160.3 modified</b>	%	%	%	%	
11624	28a Moisture Content by 160.3	n.a.	13.2	0.50	0.50		1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.							

### General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10349SLJ026	01/04/2011 18:08	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10349SLG026	12/29/2010 14:50	Chad A Moline	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10349SLG026	12/16/2010 07:00	Joseph S Feister	1
00381	BNA Soil Sonication	SW-846 3550B	1	10349SLJ026	12/16/2010 07:00	Kerrie A Freeburn	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	103490015A	12/18/2010 09:02	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	103500011A	12/23/2010 23:15	Jamie L Brillhart	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	103500025A	12/21/2010 13:52	Lindsey K Lafferty	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	2	103500011A	12/16/2010 16:50	JoElla L Rice	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	103500025A	12/17/2010 00:40	Roman Kuropatkin	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	103490015A	12/16/2010 02:10	Roman Kuropatkin	1
01643	Aluminum	SW-846 6010B	1	103495708003	12/18/2010 00:01	John W Yanzuk II	1
07914	Boron	SW-846 6010B	1	103495708003	12/18/2010 00:01	John W Yanzuk II	1
01650	Calcium	SW-846 6010B	1	103495708003	12/18/2010 00:01	John W Yanzuk II	1
01654	Iron	SW-846 6010B	1	103495708003	12/18/2010 00:01	John W Yanzuk II	1
01656	Lithium	SW-846 6010B	1	103495708003	12/18/2010 00:01	John W Yanzuk II	1
01657	Magnesium	SW-846 6010B	1	103495708003	12/18/2010 00:01	John W Yanzuk II	1
06958	Manganese	SW-846 6010B	1	103495708003	12/18/2010 00:01	John W Yanzuk II	1
10145	Phosphorus	SW-846 6010B	1	103495708003	12/18/2010 00:01	John W Yanzuk II	1
01662	Potassium	SW-846 6010B	1	103495708003	12/18/2010 00:01	John W Yanzuk II	1
01667	Sodium	SW-846 6010B	1	103495708003	12/18/2010 00:01	John W Yanzuk II	1
07968	Strontium	SW-846 6010B	1	103495708003	12/18/2010 00:01	John W Yanzuk II	1
06969	Tin	SW-846 6010B	1	103495708003	12/18/2010 00:01	John W Yanzuk II	1

\*=This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-232-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-232-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162913  
**LLI Group #** 1225037  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 12:59

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3411 SDG#: DE034-11

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06970	Titanium	SW-846 6010B	1	103545708005	12/21/2010 20:42	John P Hook	1
10146	Zirconium	SW-846 6010B	1	103495708003	12/18/2010 00:01	John W Yanzuk II	1
06124	Antimony	SW-846 6020	1	103491026003A	12/23/2010 15:27	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103491026003A	12/23/2010 15:27	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103491026003D	12/23/2010 15:27	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103491026003A	12/23/2010 15:27	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103491026003A	12/23/2010 15:27	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103491026003A	12/23/2010 15:27	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103491026003A	12/23/2010 15:27	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103491026003A	12/23/2010 15:27	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103491026003A	12/23/2010 15:27	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103491026003C	12/23/2010 15:27	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103491026003A	12/23/2010 15:27	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103491026003B	12/23/2010 15:27	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103491026003A	12/23/2010 15:27	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103491026003A	12/23/2010 15:27	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103491026003A	12/26/2010 06:55	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	103491026003A	12/23/2010 15:27	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	103495711003	12/20/2010 05:26	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	103495708003	12/16/2010 07:00	Denise K Conners	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	103545708005	12/20/2010 20:07	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103491026003	12/16/2010 07:35	Denise K Conners	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	103495711003	12/16/2010 08:55	Denise K Conners	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10362362202A	12/30/2010 13:20	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10357357201A	12/28/2010 01:03	Ashley M Adams	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	10359243202A	12/30/2010 21:14	Ashley M Adams	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10362362202A	12/28/2010 11:00	Erik J Frederiksen	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10357357201A	12/23/2010 19:30	Carolyn M Mastropietro	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10348182102B	12/14/2010 10:45	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10348039402B	12/14/2010 10:45	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10359243202A	12/25/2010 22:10	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	1	10349162401A	12/15/2010 09:13	William C Schwebel	1

\*—This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-233-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-233-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162914  
**LLI Group #** 1225037  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 12:46

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3412 SDG#: DE034-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04688	Aniline	62-53-3	190	U 190	570		1
04688	Benzidine	92-87-5	1,300	U 1,300	3,800		1
04688	Benzoic acid	65-85-0	190	U 190	570		1
04688	Benzyl alcohol	100-51-6	190	U 190	570		1
04688	4-Bromophenyl-phenylether	101-55-3	19	U 19	190		1
04688	Carbazole	86-74-8	19	U 19	190		1
04688	4-Chloro-3-methylphenol	59-50-7	38	U 38	190		1
04688	4-Chloroaniline	106-47-8	76	U 76	190		1
04688	bis(2-Chloroethoxy)methane	111-91-1	19	U 19	190		1
04688	bis(2-Chloroethyl)ether	111-44-4	19	U 19	190		1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	19	U 19	190		1
04688	2-Chloronaphthalene	91-58-7	19	U 19	190		1
04688	2-Chlorophenol	95-57-8	19	U 19	190		1
04688	4-Chlorophenyl-phenylether	7005-72-3	38	U 38	190		1
04688	Dibenzofuran	132-64-9	19	U 19	190		1
04688	1,2-Dichlorobenzene	95-50-1	19	U 19	190		1
04688	1,3-Dichlorobenzene	541-73-1	19	U 19	190		1
04688	1,4-Dichlorobenzene	106-46-7	19	U 19	190		1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	380		1
04688	2,4-Dichlorophenol	120-83-2	19	U 19	190		1
04688	2,4-Dimethylphenol	105-67-9	38	U 38	190		1
04688	3,5-Dimethylphenol	108-68-9	38	U 38	190		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	190	U 190	570		1
04688	2,4-Dinitrophenol	51-28-5	760	U 760	2,300		1
04688	2,4-Dinitrotoluene	121-14-2	38	U 38	190		1
04688	2,6-Dinitrotoluene	606-20-2	19	U 19	190		1
04688	1,2-Diphenylhydrazine	122-66-7	19	U 19	190		1
04688	Hexachlorobenzene	118-74-1	19	U 19	190		1
04688	Hexachlorobutadiene	87-68-3	76	U 76	190		1
04688	Hexachlorocyclopentadiene	77-47-4	190	U 190	570		1
04688	Hexachloroethane	67-72-1	19	U 19	190		1
04688	Isophorone	78-59-1	19	U 19	190		1
04688	2-Methylphenol	95-48-7	38	U 38	190		1
04688	4-Methylphenol	106-44-5	38	U 38	190		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	19	U 19	190		1
04688	3-Nitroaniline	99-09-2	38	U 38	190		1
04688	4-Nitroaniline	100-01-6	76	U 76	190		1
04688	Nitrobenzene	98-95-3	19	U 19	190		1
04688	2-Nitrophenol	88-75-5	19	U 19	190		1
04688	4-Nitrophenol	100-02-7	190	U 190	570		1
04688	N-Nitroso-di-n-propylamine	621-64-7	19	U 19	190		1
04688	N-Nitrosodiphenylamine	86-30-6	19	U 19	190		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	190	U 190	570		1
04688	Phenol	108-95-2	19	U 19	190		1

\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-233-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-233-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162914  
**LLI Group #** 1225037  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 12:46

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3412 SDG#: DE034-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS Semivolatiles SW-846 8270C</b>			ug/kg	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	19	U 19	190		1
04688	2,4,5-Trichlorophenol	95-95-4	38	U 38	190		1
04688	2,4,6-Trichlorophenol	88-06-2	38	U 38	190		1
<b>GC/MS Semivolatiles SW-846 8270C SIM</b>			ug/kg	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.76	U 0.76	1.9		1
10138	Acenaphthylene	208-96-8	0.38	U 0.38	1.9		1
10138	Anthracene	120-12-7	0.38	U 0.38	1.9		1
10138	Benzo(a)anthracene	56-55-3	0.76	U 0.76	1.9		1
10138	Benzo(a)pyrene	50-32-8	0.85	J 0.76	1.9		1
10138	Benzo(b)fluoranthene	205-99-2	1.6	J 0.76	1.9		1
10138	Benzo(g,h,i)perylene	191-24-2	0.90	J 0.76	1.9		1
10138	Benzo(k)fluoranthene	207-08-9	0.76	U 0.76	1.9		1
10138	Butylbenzylphthalate	85-68-7	7.4	J 6.8	20		1
10138	Di-n-butylphthalate	84-74-2	6.8	U 6.8	20		1
10138	Chrysene	218-01-9	1.4	J 0.38	1.9		1
10138	Dibenz(a,h)anthracene	53-70-3	0.76	U 0.76	1.9		1
10138	Diethylphthalate	84-66-2	6.8	U 6.8	20		1
10138	Dimethylphthalate	131-11-3	6.8	U 6.8	20		1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	19	J 6.8	20		1
10138	Fluoranthene	206-44-0	1.8	J 0.76	1.9		1
10138	Fluorene	86-73-7	0.76	U 0.76	1.9		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.76	U 0.76	1.9		1
10138	1-Methylnaphthalene	90-12-0	0.76	U 0.76	1.9		1
10138	2-Methylnaphthalene	91-57-6	0.76	U 0.76	1.9		1
10138	Naphthalene	91-20-3	0.76	U 0.76	1.9		1
10138	N-Nitrosodimethylamine	62-75-9	0.76	U 0.76	1.9		1
10138	Di-n-octylphthalate	117-84-0	7.1	J 6.8	20		1
10138	Phenanthrene	85-01-8	0.76	U 0.76	1.9		1
10138	Pyrene	129-00-0	1.3	J 0.76	1.9		1
<b>Herbicides SW-846 8151A</b>			ug/kg	ug/kg	ug/kg	ug/kg	
10401	2,4-D	94-75-7	1.4	U 1.4	4.1		1
10401	Dalapon	75-99-0	5.0	U 5.0	10		1
10401	2,4-DB	94-82-6	0.70	U 0.70	1.9		1
10401	Dicamba	1918-00-9	0.45	U 0.45	1.4		1
10401	Dinoseb	88-85-7	0.91	U 0.91	2.7		1
10401	2,4-DP (Dichlorprop)	120-36-5	0.91	U 0.91	1.9		1
10401	MCPA	94-74-6	190	J 86	280		1
10401	MCPP (Mecoprop)	93-65-2	85	U 85	280		1
10401	2,4,5-T	93-76-5	0.093	U 0.093	0.19		1
10401	2,4,5-TP	93-72-1	0.085	U 0.085	0.19		1
<p>The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported.</p>							
<b>Pesticides/PCBs SW-846 8081A</b>			ug/kg	ug/kg	ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.075	U 0.075	0.19		1
01363	Alpha BHC	319-84-6	0.039	U 0.039	0.19		1

\*—This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-233-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-233-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162914  
**LLI Group #** 1225037  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 12:46

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3412 SDG#: DE034-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Pesticides/PCBs</b>		<b>SW-846 8081A</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
01363	Beta BHC	319-85-7	0.068 U	0.068	0.19		1
01363	Gamma BHC - Lindane	58-89-9	0.039 U	0.039	0.19		1
01363	Chlordane	57-74-9	0.91 U	0.91	3.9		1
01363	p,p-DDD	72-54-8	0.075 U	0.075	0.39		1
01363	p,p-DDE	72-55-9	0.075 U	0.075	0.39		1
01363	p,p-DDT	50-29-3	0.22 U	0.22	0.39		1
01363	Delta BHC	319-86-8	0.041 U	0.041	0.19		1
01363	Dieldrin	60-57-1	0.075 U	0.075	0.39		1
01363	Endosulfan I	959-98-8	0.050 U	0.050	0.19		1
01363	Endosulfan II	33213-65-9	0.075 U	0.075	0.39		1
01363	Endosulfan Sulfate	1031-07-8	0.075 U	0.075	0.39		1
01363	Endrin	72-20-8	0.075 U	0.075	0.39		1
01363	Endrin Aldehyde	7421-93-4	0.12 U	0.12	0.39		1
01363	Endrin Ketone	53494-70-5	0.075 U	0.075	0.39		1
01363	Heptachlor	76-44-8	0.068 U	0.068	0.19		1
01363	Heptachlor Epoxide	1024-57-3	0.14 U	0.14	0.19		1
01363	Methoxychlor	72-43-5	0.39 U	0.39	1.9		1
01363	Mirex	2385-85-5	0.14 U	0.14	0.39		1
01363	Toxaphene	8001-35-2	2.5 U	2.5	7.5		1

Various analytes in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported.

Due to interfering peaks on the chromatogram from the presence of PCBs, the values reported represent the lowest reporting limits attainable. Despite numerous cleanup methods, our usual reporting limits were not attained.

<b>Pesticides/PCBs</b>		<b>SW-846 8082</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>
10225	Aroclor 5432	63496-31-1	2.3 U	2.3	7.5	2
10225	Aroclor 5442	12642-23-8	2.3 U	2.3	7.5	2
10225	Aroclor 5460	11126-42-4	3.2 J	2.3	7.5	2
10225	PCB-1016	12674-11-2	0.75 U	0.75	3.9	2
10225	PCB-1221	11104-28-2	1.1 U	1.1	3.9	2
10225	PCB-1232	11141-16-5	1.2 U	1.2	3.9	2
10225	PCB-1242	53469-21-9	1.1 U	1.1	3.9	2
10225	PCB-1248	12672-29-6	8.6	0.75	3.9	2
10225	PCB-1254	11097-69-1	7.3	0.75	3.9	2
10225	PCB-1260	11096-82-5	3.4 J	0.75	3.9	2
10225	PCB-1262	37324-23-5	0.75 U	0.75	3.9	2
10225	PCB-1268	11100-14-4	0.75 U	0.75	3.9	2

The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.

<b>Metals</b>		<b>SW-846 6010B</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>
01643	Aluminum	7429-90-5	21,000	5.54	22.0	1
07914	Boron	7440-42-8	13.9	0.981	5.51	1
01650	Calcium	7440-70-2	41,700	6.76	22.0	1
01654	Iron	7439-89-6	27,400	5.19	22.0	1
01656	Lithium	7439-93-2	28.2	0.24	2.2	1
01657	Magnesium	7439-95-4	6,950	2.80	11.0	1
06958	Manganese	7439-96-5	330	0.0860	0.551	1

\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-233-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-233-SA5B-SS-0.0-0.5

LLI Sample # SW 6162914  
 LLI Group # 1225037  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 12:46

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3412 SDG#: DE034-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Metals</b>							
		<b>SW-846 6010B</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
10145	Phosphorus	7723-14-0	518	0.617	11.0		1
01662	Potassium	7440-09-7	4,630	19.8	55.1		1
01667	Sodium	7440-23-5	168	41.1	110		1
07968	Strontium	7440-24-6	83.7	0.0683	0.551		1
06969	Tin	7440-31-5	1.99 J	1.10	11.0		1
06970	Titanium	7440-32-6	1,580	0.427	1.12		1
10146	Zirconium	7440-67-7	3.70 J	0.926	5.51		1
		<b>SW-846 6020</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
06124	Antimony	7440-36-0	0.0837 J	0.0674	0.225		2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	6.21	0.0674	0.450		2
06126	Barium	7440-39-3	120	0.121	0.450		2
06127	Beryllium	7440-41-7	0.666	0.0180	0.112		2
06128	Cadmium	7440-43-9	0.374	0.0405	0.112		2
06131	Chromium	7440-47-3	30.4	0.135	0.450		2
06132	Cobalt	7440-48-4	10.0	0.0225	0.112		2
06133	Copper	7440-50-8	14.6	0.0742	0.450		2
06135	Lead	7439-92-1	10.6	0.0117	0.225		2
06138	Molybdenum	7439-98-7	0.543	0.0562	0.112		2
06139	Nickel	7440-02-0	19.5	0.112	0.450		2
06141	Selenium	7782-49-2	0.217 J	0.0450	0.450		2
06142	Silver	7440-22-4	0.0386 J	0.0135	0.112		2
06145	Thallium	7440-28-0	0.377	0.0337	0.112		2
06148	Vanadium	7440-62-2	45.7	0.0247	0.112		2
06149	Zinc	7440-66-6	88.9	0.629	3.37		2
		<b>SW-846 7471A</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
00159	Mercury	7439-97-6	0.0066 J	0.0032	0.113		1
<b>Wet Chemistry</b>							
		<b>EPA 300.0</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	3.9	0.91	1.1		1
		<b>EPA 314.0</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10147	7a Perchlorate EPA 314.0	14797-73-0	10.2 U	10.2	34.1		1
		<b>SW-846 7199</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
05892	3a Cr VI by EPA 7199	18540-29-9	0.39 J	0.23	1.1		1
		<b>ASTM D1498</b>	<b>mV</b>	<b>mV</b>	<b>mV</b>	<b>mV</b>	
01821	Oxidation Reduction Potential	n.a.	418	10.0	10.0		1
	The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.						

\*-This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.



# Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

**Sample Description:** SL-233-SA5B-SS-0.0-0.5 Soil  
SSFL Area IV Collocated Soil Sampling  
SL-233-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162914  
**LLI Group #** 1225037  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 12:46

CDM Federal Programs Corp.  
14420 Albemarle Point Place  
Suite 210  
Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3412 SDG#: DE034-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Wet Chemistry</b>			<b>SW-846 9045C modified</b>	<b>Std. Units</b>	<b>Std. Units</b>	<b>Std. Units</b>	
00394	22a pH by 9045C	n.a.	8.51	0.0100	0.0100		1
<b>Wet Chemistry</b>			<b>EPA 160.3 modified</b>	<b>%</b>	<b>%</b>	<b>%</b>	
11624	28a Moisture Content by 160.3	n.a.	11.9	0.50	0.50		1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.							

### General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10349SLJ026	01/04/2011 18:34	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10349SLG026	12/29/2010 15:23	Chad A Moline	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10349SLG026	12/16/2010 07:00	Joseph S Feister	1
00381	BNA Soil Sonication	SW-846 3550B	1	10349SLJ026	12/16/2010 07:00	Kerrie A Freeburn	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	103490015A	12/18/2010 09:30	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	103500011A	12/23/2010 23:29	Jamie L Brillhart	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	103500025A	12/21/2010 14:10	Lindsey K Lafferty	2
11134	Pesticide Screen Soils Ext	SW-846 3550B	2	103500011A	12/16/2010 16:50	JoElla L Rice	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	103500025A	12/17/2010 00:40	Roman Kuropatkin	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	103490015A	12/16/2010 02:10	Roman Kuropatkin	1
01643	Aluminum	SW-846 6010B	1	103495708003	12/18/2010 00:05	John W Yanzuk II	1
07914	Boron	SW-846 6010B	1	103495708003	12/18/2010 00:05	John W Yanzuk II	1
01650	Calcium	SW-846 6010B	1	103495708003	12/18/2010 00:05	John W Yanzuk II	1
01654	Iron	SW-846 6010B	1	103495708003	12/18/2010 00:05	John W Yanzuk II	1
01656	Lithium	SW-846 6010B	1	103495708003	12/18/2010 00:05	John W Yanzuk II	1
01657	Magnesium	SW-846 6010B	1	103495708003	12/18/2010 00:05	John W Yanzuk II	1
06958	Manganese	SW-846 6010B	1	103495708003	12/18/2010 00:05	John W Yanzuk II	1
10145	Phosphorus	SW-846 6010B	1	103495708003	12/18/2010 00:05	John W Yanzuk II	1
01662	Potassium	SW-846 6010B	1	103495708003	12/18/2010 00:05	John W Yanzuk II	1
01667	Sodium	SW-846 6010B	1	103495708003	12/18/2010 00:05	John W Yanzuk II	1
07968	Strontium	SW-846 6010B	1	103495708003	12/18/2010 00:05	John W Yanzuk II	1
06969	Tin	SW-846 6010B	1	103495708003	12/18/2010 00:05	John W Yanzuk II	1

\*=This limit was used in the evaluation of the final result  
Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-233-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-233-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162914  
**LLI Group #** 1225037  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 12:46

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3412 SDG#: DE034-12

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06970	Titanium	SW-846 6010B	1	103545708005	12/21/2010 20:47	John P Hook	1
10146	Zirconium	SW-846 6010B	1	103495708003	12/18/2010 00:05	John W Yanzuk II	1
06124	Antimony	SW-846 6020	1	103491026003A	12/23/2010 15:30	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103491026003A	12/23/2010 15:30	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103491026003D	12/23/2010 15:30	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103491026003A	12/23/2010 15:30	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103491026003A	12/23/2010 15:30	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103491026003A	12/23/2010 15:30	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103491026003A	12/23/2010 15:30	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103491026003A	12/23/2010 15:30	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103491026003A	12/23/2010 15:30	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103491026003C	12/23/2010 15:30	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103491026003A	12/23/2010 15:30	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103491026003B	12/23/2010 15:30	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103491026003A	12/23/2010 15:30	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103491026003A	12/23/2010 15:30	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103491026003A	12/26/2010 06:57	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	103491026003A	12/23/2010 15:30	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	103495711003	12/20/2010 05:30	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	103495708003	12/16/2010 07:00	Denise K Conners	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	103545708005	12/20/2010 20:07	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103491026003	12/16/2010 07:35	Denise K Conners	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	103495711003	12/16/2010 08:55	Denise K Conners	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10362362202A	12/30/2010 13:34	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10357357201A	12/28/2010 01:27	Ashley M Adams	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	10359243202A	12/31/2010 10:34	Ashley M Adams	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10362362202A	12/28/2010 11:00	Erik J Frederiksen	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10357357201A	12/23/2010 19:30	Carolyn M Mastropietro	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10348182102B	12/14/2010 10:45	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10348039402B	12/14/2010 10:45	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10359243202A	12/25/2010 22:10	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	1	10349162401A	12/15/2010 09:13	William C Schwebel	1

\*—This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-299-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-299-SA5B-SS-0.0-0.5

LLI Sample # SW 6162915  
 LLI Group # 1225037  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 10:49

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3413 SDG#: DE034-13

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04688	Aniline	62-53-3	190	U 190	580		1
04688	Benzidine	92-87-5	1,400	U 1,400	3,900		1
04688	Benzoic acid	65-85-0	190	U 190	580		1
04688	Benzyl alcohol	100-51-6	190	U 190	580		1
04688	4-Bromophenyl-phenylether	101-55-3	19	U 19	190		1
04688	Carbazole	86-74-8	19	U 19	190		1
04688	4-Chloro-3-methylphenol	59-50-7	39	U 39	190		1
04688	4-Chloroaniline	106-47-8	77	U 77	190		1
04688	bis(2-Chloroethoxy)methane	111-91-1	19	U 19	190		1
04688	bis(2-Chloroethyl)ether	111-44-4	19	U 19	190		1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	19	U 19	190		1
04688	2-Chloronaphthalene	91-58-7	19	U 19	190		1
04688	2-Chlorophenol	95-57-8	19	U 19	190		1
04688	4-Chlorophenyl-phenylether	7005-72-3	39	U 39	190		1
04688	Dibenzofuran	132-64-9	19	U 19	190		1
04688	1,2-Dichlorobenzene	95-50-1	19	U 19	190		1
04688	1,3-Dichlorobenzene	541-73-1	19	U 19	190		1
04688	1,4-Dichlorobenzene	106-46-7	19	U 19	190		1
04688	3,3'-Dichlorobenzidine	91-94-1	120	U 120	390		1
04688	2,4-Dichlorophenol	120-83-2	19	U 19	190		1
04688	2,4-Dimethylphenol	105-67-9	39	U 39	190		1
04688	3,5-Dimethylphenol	108-68-9	39	U 39	190		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	190	U 190	580		1
04688	2,4-Dinitrophenol	51-28-5	770	U 770	2,300		1
04688	2,4-Dinitrotoluene	121-14-2	39	U 39	190		1
04688	2,6-Dinitrotoluene	606-20-2	19	U 19	190		1
04688	1,2-Diphenylhydrazine	122-66-7	19	U 19	190		1
04688	Hexachlorobenzene	118-74-1	19	U 19	190		1
04688	Hexachlorobutadiene	87-68-3	77	U 77	190		1
04688	Hexachlorocyclopentadiene	77-47-4	190	U 190	580		1
04688	Hexachloroethane	67-72-1	19	U 19	190		1
04688	Isophorone	78-59-1	19	U 19	190		1
04688	2-Methylphenol	95-48-7	39	U 39	190		1
04688	4-Methylphenol	106-44-5	39	U 39	190		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	19	U 19	190		1
04688	3-Nitroaniline	99-09-2	39	U 39	190		1
04688	4-Nitroaniline	100-01-6	77	U 77	190		1
04688	Nitrobenzene	98-95-3	19	U 19	190		1
04688	2-Nitrophenol	88-75-5	19	U 19	190		1
04688	4-Nitrophenol	100-02-7	190	U 190	580		1
04688	N-Nitroso-di-n-propylamine	621-64-7	19	U 19	190		1
04688	N-Nitrosodiphenylamine	86-30-6	19	U 19	190		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	190	U 190	580		1
04688	Phenol	108-95-2	19	U 19	190		1

\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-299-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-299-SA5B-SS-0.0-0.5

LLI Sample # SW 6162915  
 LLI Group # 1225037  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 10:49

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3413 SDG#: DE034-13

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS Semivolatiles SW-846 8270C</b>			ug/kg	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	19	U 19	190		1
04688	2,4,5-Trichlorophenol	95-95-4	39	U 39	190		1
04688	2,4,6-Trichlorophenol	88-06-2	39	U 39	190		1
<b>GC/MS Semivolatiles SW-846 8270C SIM</b>			ug/kg	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.77	U 0.77	1.9		1
10138	Acenaphthylene	208-96-8	0.39	U 0.39	1.9		1
10138	Anthracene	120-12-7	0.39	U 0.39	1.9		1
10138	Benzo(a)anthracene	56-55-3	0.99	J 0.77	1.9		1
10138	Benzo(a)pyrene	50-32-8	1.3	J 0.77	1.9		1
10138	Benzo(b)fluoranthene	205-99-2	2.9	U 0.77	1.9		1
10138	Benzo(g,h,i)perylene	191-24-2	1.4	J 0.77	1.9		1
10138	Benzo(k)fluoranthene	207-08-9	0.84	J 0.77	1.9		1
10138	Butylbenzylphthalate	85-68-7	7.0	U 7.0	21		1
10138	Di-n-butylphthalate	84-74-2	7.0	U 7.0	21		1
10138	Chrysene	218-01-9	2.4	U 0.39	1.9		1
10138	Dibenz(a,h)anthracene	53-70-3	0.77	U 0.77	1.9		1
10138	Diethylphthalate	84-66-2	7.0	U 7.0	21		1
10138	Dimethylphthalate	131-11-3	7.0	U 7.0	21		1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	11	J 7.0	21		1
10138	Fluoranthene	206-44-0	3.4	U 0.77	1.9		1
10138	Fluorene	86-73-7	0.77	U 0.77	1.9		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.77	U 0.77	1.9		1
10138	1-Methylnaphthalene	90-12-0	0.77	U 0.77	1.9		1
10138	2-Methylnaphthalene	91-57-6	0.77	U 0.77	1.9		1
10138	Naphthalene	91-20-3	0.77	U 0.77	1.9		1
10138	N-Nitrosodimethylamine	62-75-9	0.77	U 0.77	1.9		1
10138	Di-n-octylphthalate	117-84-0	7.0	U 7.0	21		1
10138	Phenanthrene	85-01-8	1.5	J 0.77	1.9		1
10138	Pyrene	129-00-0	2.5	U 0.77	1.9		1
<b>Herbicides SW-846 8151A</b>			ug/kg	ug/kg	ug/kg	ug/kg	
10401	2,4-D	94-75-7	1.4	U 1.4	4.2		1
10401	Dalapon	75-99-0	5.1	U 5.1	10		1
10401	2,4-DB	94-82-6	0.72	U 0.72	2.0		1
10401	Dicamba	1918-00-9	0.46	U 0.46	1.4		1
10401	Dinoseb	88-85-7	0.93	U 0.93	2.8		1
10401	2,4-DP (Dichlorprop)	120-36-5	0.93	U 0.93	2.0		1
10401	MCPA	94-74-6	150	J 88	290		1
10401	MCPP (Mecoprop)	93-65-2	87	U 87	290		1
10401	2,4,5-T	93-76-5	0.095	U 0.095	0.20		1
10401	2,4,5-TP	93-72-1	0.087	U 0.087	0.20		1
<p>The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported.</p>							
<b>Pesticides/PCBs SW-846 8081A</b>			ug/kg	ug/kg	ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.076	U 0.076	0.19		1
01363	Alpha BHC	319-84-6	0.039	U 0.039	0.19		1

\*—This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-299-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-299-SA5B-SS-0.0-0.5

LLI Sample # SW 6162915  
 LLI Group # 1225037  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 10:49

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3413 SDG#: DE034-13

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Pesticides/PCBs</b>		<b>SW-846 8081A</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
01363	Beta BHC	319-85-7	0.070 U	0.070	0.19		1
01363	Gamma BHC - Lindane	58-89-9	0.039 U	0.039	0.19		1
01363	Chlordane	57-74-9	0.93 U	0.93	3.9		1
01363	p,p-DDD	72-54-8	0.076 U	0.076	0.39		1
01363	p,p-DDE	72-55-9	0.076 U	0.076	0.39		1
01363	p,p-DDT	50-29-3	0.14 J	0.076	0.39		1
01363	Delta BHC	319-86-8	0.042 U	0.042	0.19		1
01363	Dieldrin	60-57-1	0.076 U	0.076	0.39		1
01363	Endosulfan I	959-98-8	0.051 U	0.051	0.19		1
01363	Endosulfan II	33213-65-9	0.076 U	0.076	0.39		1
01363	Endosulfan Sulfate	1031-07-8	0.076 U	0.076	0.39		1
01363	Endrin	72-20-8	0.076 U	0.076	0.39		1
01363	Endrin Aldehyde	7421-93-4	0.10 J	0.076	0.39		1
01363	Endrin Ketone	53494-70-5	0.076 U	0.076	0.39		1
01363	Heptachlor	76-44-8	0.070 U	0.070	0.19		1
01363	Heptachlor Epoxide	1024-57-3	0.074 J	0.039	0.19		1
01363	Methoxychlor	72-43-5	0.39 U	0.39	1.9		1
01363	Mirex	2385-85-5	0.44 U	0.076	0.39		1
01363	Toxaphene	8001-35-2	2.5 U	2.5	7.6		1

The LCS recovery for p,p-DDT and methoxychlor are outside the QC limits. Results from the reextraction are within the limits for p,p-DDT and methoxychlor. The hold time had expired prior to the reextraction so all results are reported from the original extract. Similar results were obtained in both extracts for p,p-DDT and methoxychlor. Various analytes in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported.

<b>Pesticides/PCBs</b>		<b>SW-846 8082</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>
10225	Aroclor 5432	63496-31-1	1.2 U	1.2	3.8	1
10225	Aroclor 5442	12642-23-8	1.2 U	1.2	3.8	1
10225	Aroclor 5460	11126-42-4	1.2 U	1.2	3.8	1
10225	PCB-1016	12674-11-2	0.38 U	0.38	2.0	1
10225	PCB-1221	11104-28-2	0.58 U	0.58	2.0	1
10225	PCB-1232	11141-16-5	0.60 U	0.60	2.0	1
10225	PCB-1242	53469-21-9	0.58 U	0.58	2.0	1
10225	PCB-1248	12672-29-6	0.38 U	0.38	2.0	1
10225	PCB-1254	11097-69-1	0.38 U	0.38	2.0	1
10225	PCB-1260	11096-82-5	0.38 U	0.38	2.0	1
10225	PCB-1262	37324-23-5	0.38 U	0.38	2.0	1
10225	PCB-1268	11100-14-4	0.38 U	0.38	2.0	1

The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.

<b>Metals</b>		<b>SW-846 6010B</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>
01643	Aluminum	7429-90-5	21,400	5.71	22.7	1
07914	Boron	7440-42-8	15.5	1.01	5.68	1
01650	Calcium	7440-70-2	79,500	34.8	114	5
01654	Iron	7439-89-6	27,700	5.35	22.7	1
01656	Lithium	7439-93-2	24.1	0.25	2.3	1

\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-299-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-299-SA5B-SS-0.0-0.5

LLI Sample # SW 6162915  
 LLI Group # 1225037  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 10:49

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3413 SDG#: DE034-13

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Metals</b>							
		<b>SW-846 6010B</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
01657	Magnesium	7439-95-4	7,030	2.89	11.4		1
06958	Manganese	7439-96-5	332	0.0886	0.568		1
10145	Phosphorus	7723-14-0	527	0.636	11.4		1
01662	Potassium	7440-09-7	4,620	20.4	56.8		1
01667	Sodium	7440-23-5	146	42.4	114		1
07968	Strontium	7440-24-6	134	0.0704	0.568		1
06969	Tin	7440-31-5	1.21 J	1.14	11.4		1
06970	Titanium	7440-32-6	1,410	0.432	1.14		1
10146	Zirconium	7440-67-7	3.16 J	0.954	5.68		1
		<b>SW-846 6020</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
06124	Antimony	7440-36-0	0.0688 U	0.0688	0.229		2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	6.85	0.0688	0.459		2
06126	Barium	7440-39-3	131	0.124	0.459		2
06127	Beryllium	7440-41-7	0.677	0.0184	0.115		2
06128	Cadmium	7440-43-9	0.348	0.0413	0.115		2
06131	Chromium	7440-47-3	31.3	0.138	0.459		2
06132	Cobalt	7440-48-4	9.75	0.0229	0.115		2
06133	Copper	7440-50-8	15.9	0.0757	0.459		2
06135	Lead	7439-92-1	10.4	0.0119	0.229		2
06138	Molybdenum	7439-98-7	0.441	0.0574	0.115		2
06139	Nickel	7440-02-0	21.0	0.115	0.459		2
06141	Selenium	7782-49-2	0.258 J	0.0459	0.459		2
06142	Silver	7440-22-4	0.0302 J	0.0138	0.115		2
06145	Thallium	7440-28-0	0.371	0.0344	0.115		2
06148	Vanadium	7440-62-2	46.5	0.0252	0.115		2
06149	Zinc	7440-66-6	79.1	0.642	3.44		2
		<b>SW-846 7471A</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
00159	Mercury	7439-97-6	0.0032 U	0.0032	0.112		1
<b>Wet Chemistry</b>							
		<b>EPA 300.0</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	3.3	0.93	1.2		1
		<b>EPA 314.0</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10147	7a Perchlorate EPA 314.0	14797-73-0	10.4 U	10.4	34.8		1
		<b>SW-846 7199</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
05892	3a Cr VI by EPA 7199	18540-29-9	0.23 U	0.23	1.2		1
		<b>ASTM D1498</b>	<b>mV</b>	<b>mV</b>	<b>mV</b>	<b>mV</b>	
01821	Oxidation Reduction Potential	n.a.	403	10.0	10.0		1
	The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.						

\*—This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-299-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-299-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162915  
**LLI Group #** 1225037  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 10:49

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3413 SDG#: DE034-13

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Wet Chemistry</b> SW-846 9045C modified Std. Units Std. Units Std. Units Std. Units							
00394	22a pH by 9045C	n.a.	8.51	0.0100	0.0100		1
<b>Wet Chemistry</b> EPA 160.3 modified % % % %							
11624	28a Moisture Content by 160.3	n.a.	13.7	0.50	0.50		1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.							

### General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10349SLJ026	01/04/2011 19:00	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10349SLG026	12/29/2010 15:56	Chad A Moline	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10349SLG026	12/16/2010 07:00	Joseph S Feister	1
00381	BNA Soil Sonication	SW-846 3550B	1	10349SLJ026	12/16/2010 07:00	Kerrie A Freeburn	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	103490015A	12/18/2010 09:57	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	103500011A	12/23/2010 23:42	Jamie L Brillhart	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	103500025A	12/21/2010 14:29	Lindsey K Lafferty	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	103500011A	12/16/2010 16:50	JoElla L Rice	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	103500025A	12/17/2010 00:40	Roman Kuropatkin	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	103490015A	12/16/2010 02:10	Roman Kuropatkin	1
01643	Aluminum	SW-846 6010B	1	103495708003	12/18/2010 00:16	John W Yanzuk II	1
07914	Boron	SW-846 6010B	1	103495708003	12/18/2010 00:16	John W Yanzuk II	1
01650	Calcium	SW-846 6010B	1	103495708003	12/20/2010 13:05	Joanne M Gates	5
01654	Iron	SW-846 6010B	1	103495708003	12/18/2010 00:16	John W Yanzuk II	1
01656	Lithium	SW-846 6010B	1	103495708003	12/18/2010 00:16	John W Yanzuk II	1
01657	Magnesium	SW-846 6010B	1	103495708003	12/18/2010 00:16	John W Yanzuk II	1
06958	Manganese	SW-846 6010B	1	103495708003	12/18/2010 00:16	John W Yanzuk II	1
10145	Phosphorus	SW-846 6010B	1	103495708003	12/18/2010 00:16	John W Yanzuk II	1
01662	Potassium	SW-846 6010B	1	103495708003	12/18/2010 00:16	John W Yanzuk II	1
01667	Sodium	SW-846 6010B	1	103495708003	12/18/2010 00:16	John W Yanzuk II	1
07968	Strontium	SW-846 6010B	1	103495708003	12/18/2010 00:16	John W Yanzuk II	1

\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-299-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-299-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162915  
**LLI Group #** 1225037  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 10:49

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3413 SDG#: DE034-13

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
06969	Tin	SW-846 6010B	1	103495708003	12/18/2010	00:16	John W Yanzuk II	1
06970	Titanium	SW-846 6010B	1	103545708005	12/21/2010	20:58	John P Hook	1
10146	Zirconium	SW-846 6010B	1	103495708003	12/18/2010	00:16	John W Yanzuk II	1
06124	Antimony	SW-846 6020	1	103491026003A	12/23/2010	15:33	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103491026003A	12/23/2010	15:33	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103491026003D	12/23/2010	15:33	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103491026003A	12/23/2010	15:33	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103491026003A	12/23/2010	15:33	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103491026003A	12/23/2010	15:33	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103491026003A	12/23/2010	15:33	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103491026003A	12/23/2010	15:33	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103491026003A	12/23/2010	15:33	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103491026003C	12/23/2010	15:33	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103491026003A	12/23/2010	15:33	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103491026003B	12/23/2010	15:33	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103491026003A	12/23/2010	15:33	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103491026003A	12/23/2010	15:33	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103491026003A	12/26/2010	07:02	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	103491026003A	12/23/2010	15:33	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	103495711003	12/20/2010	05:31	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	103495708003	12/16/2010	07:00	Denise K Conners	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	103545708005	12/20/2010	20:07	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103491026003	12/16/2010	07:35	Denise K Conners	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	103495711003	12/16/2010	08:55	Denise K Conners	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10362362202A	12/30/2010	13:48	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10357357201A	12/28/2010	02:15	Ashley M Adams	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	10359243202A	12/31/2010	10:50	Ashley M Adams	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10362362202A	12/28/2010	11:00	Erik J Frederiksen	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10357357201A	12/23/2010	19:30	Carolyn M Mastropietro	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10348182102B	12/14/2010	10:45	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10348039402B	12/14/2010	10:45	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10359243202A	12/25/2010	22:10	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	1	10349162401B	12/15/2010	09:13	William C Schwebel	1

\*—This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.



# Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

**Sample Description:** SL-300-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-300-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162916  
**LLI Group #** 1225037  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 11:04

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3414 SDG#: DE034-14

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04688	Aniline	62-53-3	200	U 200	600		1
04688	Benzidine	92-87-5	1,400	U 1,400	4,000		1
04688	Benzoic acid	65-85-0	200	U 200	600		1
04688	Benzyl alcohol	100-51-6	200	U 200	600		1
04688	4-Bromophenyl-phenylether	101-55-3	20	U 20	200		1
04688	Carbazole	86-74-8	20	U 20	200		1
04688	4-Chloro-3-methylphenol	59-50-7	40	U 40	200		1
04688	4-Chloroaniline	106-47-8	80	U 80	200		1
04688	bis(2-Chloroethoxy)methane	111-91-1	20	U 20	200		1
04688	bis(2-Chloroethyl)ether	111-44-4	20	U 20	200		1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	20	U 20	200		1
04688	2-Chloronaphthalene	91-58-7	20	U 20	200		1
04688	2-Chlorophenol	95-57-8	20	U 20	200		1
04688	4-Chlorophenyl-phenylether	7005-72-3	40	U 40	200		1
04688	Dibenzofuran	132-64-9	20	U 20	200		1
04688	1,2-Dichlorobenzene	95-50-1	20	U 20	200		1
04688	1,3-Dichlorobenzene	541-73-1	20	U 20	200		1
04688	1,4-Dichlorobenzene	106-46-7	20	U 20	200		1
04688	3,3'-Dichlorobenzidine	91-94-1	120	U 120	400		1
04688	2,4-Dichlorophenol	120-83-2	20	U 20	200		1
04688	2,4-Dimethylphenol	105-67-9	40	U 40	200		1
04688	3,5-Dimethylphenol	108-68-9	40	U 40	200		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	200	U 200	600		1
04688	2,4-Dinitrophenol	51-28-5	800	U 800	2,400		1
04688	2,4-Dinitrotoluene	121-14-2	40	U 40	200		1
04688	2,6-Dinitrotoluene	606-20-2	20	U 20	200		1
04688	1,2-Diphenylhydrazine	122-66-7	20	U 20	200		1
04688	Hexachlorobenzene	118-74-1	20	U 20	200		1
04688	Hexachlorobutadiene	87-68-3	80	U 80	200		1
04688	Hexachlorocyclopentadiene	77-47-4	200	U 200	600		1
04688	Hexachloroethane	67-72-1	20	U 20	200		1
04688	Isophorone	78-59-1	20	U 20	200		1
04688	2-Methylphenol	95-48-7	40	U 40	200		1
04688	4-Methylphenol	106-44-5	40	U 40	200		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	20	U 20	200		1
04688	3-Nitroaniline	99-09-2	40	U 40	200		1
04688	4-Nitroaniline	100-01-6	80	U 80	200		1
04688	Nitrobenzene	98-95-3	20	U 20	200		1
04688	2-Nitrophenol	88-75-5	20	U 20	200		1
04688	4-Nitrophenol	100-02-7	200	U 200	600		1
04688	N-Nitroso-di-n-propylamine	621-64-7	20	U 20	200		1
04688	N-Nitrosodiphenylamine	86-30-6	20	U 20	200		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	200	U 200	600		1
04688	Phenol	108-95-2	20	U 20	200		1

\*=This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-300-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-300-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162916  
**LLI Group #** 1225037  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 11:04

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3414 SDG#: DE034-14

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS Semivolatiles SW-846 8270C</b>			ug/kg	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	20	U 20	200		1
04688	2,4,5-Trichlorophenol	95-95-4	40	U 40	200		1
04688	2,4,6-Trichlorophenol	88-06-2	40	U 40	200		1
<b>GC/MS Semivolatiles SW-846 8270C SIM</b>			ug/kg	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.80	U 0.80	2.0		1
10138	Acenaphthylene	208-96-8	0.40	U 0.40	2.0		1
10138	Anthracene	120-12-7	0.40	U 0.40	2.0		1
10138	Benzo(a)anthracene	56-55-3	0.80	U 0.80	2.0		1
10138	Benzo(a)pyrene	50-32-8	0.80	U 0.80	2.0		1
10138	Benzo(b)fluoranthene	205-99-2	2.2	U 0.80	2.0		1
10138	Benzo(g,h,i)perylene	191-24-2	1.6	J 0.80	2.0		1
10138	Benzo(k)fluoranthene	207-08-9	0.80	U 0.80	2.0		1
10138	Butylbenzylphthalate	85-68-7	11	J 7.2	22		1
10138	Di-n-butylphthalate	84-74-2	7.2	U 7.2	22		1
10138	Chrysene	218-01-9	2.4	U 0.40	2.0		1
10138	Dibenz(a,h)anthracene	53-70-3	0.80	U 0.80	2.0		1
10138	Diethylphthalate	84-66-2	7.2	U 7.2	22		1
10138	Dimethylphthalate	131-11-3	7.2	U 7.2	22		1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	35	U 7.2	22		1
10138	Fluoranthene	206-44-0	0.80	U 0.80	2.0		1
10138	Fluorene	86-73-7	0.80	U 0.80	2.0		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.80	U 0.80	2.0		1
10138	1-Methylnaphthalene	90-12-0	0.80	U 0.80	2.0		1
10138	2-Methylnaphthalene	91-57-6	0.80	U 0.80	2.0		1
10138	Naphthalene	91-20-3	0.80	U 0.80	2.0		1
10138	N-Nitrosodimethylamine	62-75-9	0.80	U 0.80	2.0		1
10138	Di-n-octylphthalate	117-84-0	7.2	U 7.2	22		1
10138	Phenanthrene	85-01-8	0.80	U 0.80	2.0		1
10138	Pyrene	129-00-0	0.80	U 0.80	2.0		1
<b>Herbicides SW-846 8151A</b>			ug/kg	ug/kg	ug/kg	ug/kg	
10401	2,4-D	94-75-7	1.4	U 1.4	4.3		1
10401	Dalapon	75-99-0	5.3	U 5.3	11		1
10401	2,4-DB	94-82-6	0.75	U 0.75	2.1		1
10401	Dicamba	1918-00-9	0.48	U 0.48	1.4		1
10401	Dinoseb	88-85-7	0.97	U 0.97	2.9		1
10401	2,4-DP (Dichlorprop)	120-36-5	0.97	U 0.97	2.1		1
10401	MCPA	94-74-6	92	U 92	300		1
10401	MCPP (Mecoprop)	93-65-2	90	U 90	300		1
10401	2,4,5-T	93-76-5	0.099	U 0.099	0.21		1
10401	2,4,5-TP	93-72-1	0.090	U 0.090	0.21		1
<p>The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported.</p>							
<b>Pesticides/PCBs SW-846 8081A</b>			ug/kg	ug/kg	ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.080	U 0.080	0.20		1
01363	Alpha BHC	319-84-6	0.041	U 0.041	0.20		1

\*—This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-300-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-300-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162916  
**LLI Group #** 1225037  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 11:04

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3414 SDG#: DE034-14

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Pesticides/PCBs</b>		<b>SW-846 8081A</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
01363	Beta BHC	319-85-7	0.072 U	0.072	0.20		1
01363	Gamma BHC - Lindane	58-89-9	0.041 U	0.041	0.20		1
01363	Chlordane	57-74-9	0.97 U	0.97	4.1		1
01363	p,p-DDD	72-54-8	0.080 U	0.080	0.41		1
01363	p,p-DDE	72-55-9	0.080 U	0.080	0.41		1
01363	p,p-DDT	50-29-3	0.13 U	0.13	0.41		1
01363	Delta BHC	319-86-8	0.043 U	0.043	0.20		1
01363	Dieldrin	60-57-1	0.080 U	0.080	0.41		1
01363	Endosulfan I	959-98-8	0.053 U	0.053	0.20		1
01363	Endosulfan II	33213-65-9	0.080 U	0.080	0.41		1
01363	Endosulfan Sulfate	1031-07-8	0.080 U	0.080	0.41		1
01363	Endrin	72-20-8	0.080 U	0.080	0.41		1
01363	Endrin Aldehyde	7421-93-4	0.080 U	0.080	0.41		1
01363	Endrin Ketone	53494-70-5	0.080 U	0.080	0.41		1
01363	Heptachlor	76-44-8	0.072 U	0.072	0.20		1
01363	Heptachlor Epoxide	1024-57-3	0.041 U	0.041	0.20		1
01363	Methoxychlor	72-43-5	0.41 U	0.41	2.0		1
01363	Mirex	2385-85-5	0.080 U	0.080	0.41		1
01363	Toxaphene	8001-35-2	2.7 U	2.7	8.0		1

Various analytes in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported.

Due to interfering peaks on the chromatogram from the presence of PCBs, the values reported represent the lowest reporting limits attainable. Despite numerous cleanup methods, our usual reporting limits were not attained.

<b>Pesticides/PCBs</b>		<b>SW-846 8082</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>
10225	Aroclor 5432	63496-31-1	1.2 U	1.2	4.0	1
10225	Aroclor 5442	12642-23-8	1.2 U	1.2	4.0	1
10225	Aroclor 5460	11126-42-4	1.2 U	1.2	4.0	1
10225	PCB-1016	12674-11-2	0.40 U	0.40	2.1	1
10225	PCB-1221	11104-28-2	0.60 U	0.60	2.1	1
10225	PCB-1232	11141-16-5	0.63 U	0.63	2.1	1
10225	PCB-1242	53469-21-9	0.60 U	0.60	2.1	1
10225	PCB-1248	12672-29-6	2.4 U	0.40	2.1	1
10225	PCB-1254	11097-69-1	1.2 J	0.40	2.1	1
10225	PCB-1260	11096-82-5	1.0 J	0.40	2.1	1
10225	PCB-1262	37324-23-5	0.40 U	0.40	2.1	1
10225	PCB-1268	11100-14-4	0.40 U	0.40	2.1	1

The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.

<b>Metals</b>		<b>SW-846 6010B</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>
01643	Aluminum	7429-90-5	22,600	6.01	23.9	1
07914	Boron	7440-42-8	16.0	1.06	5.97	1
01650	Calcium	7440-70-2	63,500	7.32	23.9	1
01654	Iron	7439-89-6	29,700	5.63	23.9	1
01656	Lithium	7439-93-2	26.6	0.26	2.4	1
01657	Magnesium	7439-95-4	7,450	3.03	11.9	1
06958	Manganese	7439-96-5	343	0.0932	0.597	1

\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-300-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-300-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162916  
**LLI Group #** 1225037  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 11:04

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3414 SDG#: DE034-14

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Metals</b>							
	<b>SW-846 6010B</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
10145	Phosphorus	7723-14-0	540	0.669	11.9		1
01662	Potassium	7440-09-7	4,990	21.5	59.7		1
01667	Sodium	7440-23-5	163	44.5	119		1
07968	Strontium	7440-24-6	120	0.0740	0.597		1
06969	Tin	7440-31-5	1.41 J	1.19	11.9		1
06970	Titanium	7440-32-6	1,540	0.449	1.18		1
10146	Zirconium	7440-67-7	3.15 J	1.00	5.97		1
	<b>SW-846 6020</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
06124	Antimony	7440-36-0	0.0696 U	0.0696	0.232		2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	6.39	0.0696	0.464		2
06126	Barium	7440-39-3	120	0.125	0.464		2
06127	Beryllium	7440-41-7	0.658	0.0186	0.116		2
06128	Cadmium	7440-43-9	0.349	0.0418	0.116		2
06131	Chromium	7440-47-3	29.7	0.139	0.464		2
06132	Cobalt	7440-48-4	9.12	0.0232	0.116		2
06133	Copper	7440-50-8	14.8	0.0766	0.464		2
06135	Lead	7439-92-1	9.92	0.0121	0.232		2
06138	Molybdenum	7439-98-7	0.408	0.0580	0.116		2
06139	Nickel	7440-02-0	18.5	0.116	0.464		2
06141	Selenium	7782-49-2	0.229 J	0.0464	0.464		2
06142	Silver	7440-22-4	0.0190 J	0.0139	0.116		2
06145	Thallium	7440-28-0	0.363	0.0348	0.116		2
06148	Vanadium	7440-62-2	49.3	0.0255	0.116		2
06149	Zinc	7440-66-6	81.3	0.650	3.48		2
	<b>SW-846 7471A</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
00159	Mercury	7439-97-6	0.0053 J	0.0033	0.117		1
<b>Wet Chemistry</b>							
	<b>EPA 300.0</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	4.0	0.97	1.2		1
	<b>EPA 314.0</b>		<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10147	7a Perchlorate EPA 314.0	14797-73-0	10.9 U	10.9	36.2		1
	<b>SW-846 7199</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
05892	3a Cr VI by EPA 7199	18540-29-9	0.24 U	0.24	1.2		1
	<b>ASTM D1498</b>		<b>mV</b>	<b>mV</b>	<b>mV</b>	<b>mV</b>	
01821	Oxidation Reduction Potential	n.a.	425	10.0	10.0		1
	The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.						

\*-This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-300-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-300-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162916  
**LLI Group #** 1225037  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 11:04

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3414 SDG#: DE034-14

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Wet Chemistry</b>							
		<b>SW-846 9045C modified</b>	Std. Units	Std. Units	Std. Units	Std. Units	
00394	22a pH by 9045C	n.a.	7.09	0.0100	0.0100		1
<b>Wet Chemistry</b>							
		<b>EPA 160.3 modified</b>	%	%	%	%	
11624	28a Moisture Content by 160.3	n.a.	17.1	0.50	0.50		1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.							

### General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10349SLJ026	01/04/2011 19:25	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10349SLG026	12/29/2010 16:30	Chad A Moline	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10349SLG026	12/16/2010 07:00	Joseph S Feister	1
00381	BNA Soil Sonication	SW-846 3550B	1	10349SLJ026	12/16/2010 07:00	Kerrie A Freeburn	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	103490015A	12/18/2010 10:25	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	103500011A	12/24/2010 01:19	Jamie L Brillhart	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	103500025A	12/21/2010 14:47	Lindsey K Lafferty	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	2	103500011A	12/16/2010 16:50	JoElla L Rice	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	103500025A	12/17/2010 00:40	Roman Kuropatkin	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	103490015A	12/16/2010 02:10	Roman Kuropatkin	1
01643	Aluminum	SW-846 6010B	1	103495708003	12/18/2010 00:20	John W Yanzuk II	1
07914	Boron	SW-846 6010B	1	103495708003	12/18/2010 00:20	John W Yanzuk II	1
01650	Calcium	SW-846 6010B	1	103495708003	12/18/2010 00:20	John W Yanzuk II	1
01654	Iron	SW-846 6010B	1	103495708003	12/18/2010 00:20	John W Yanzuk II	1
01656	Lithium	SW-846 6010B	1	103495708003	12/18/2010 00:20	John W Yanzuk II	1
01657	Magnesium	SW-846 6010B	1	103495708003	12/18/2010 00:20	John W Yanzuk II	1
06958	Manganese	SW-846 6010B	1	103495708003	12/18/2010 00:20	John W Yanzuk II	1
10145	Phosphorus	SW-846 6010B	1	103495708003	12/18/2010 00:20	John W Yanzuk II	1
01662	Potassium	SW-846 6010B	1	103495708003	12/18/2010 00:20	John W Yanzuk II	1
01667	Sodium	SW-846 6010B	1	103495708003	12/18/2010 00:20	John W Yanzuk II	1
07968	Strontium	SW-846 6010B	1	103495708003	12/18/2010 00:20	John W Yanzuk II	1
06969	Tin	SW-846 6010B	1	103495708003	12/18/2010 00:20	John W Yanzuk II	1

\*=This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-300-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-300-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162916  
**LLI Group #** 1225037  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 11:04

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3414 SDG#: DE034-14

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06970	Titanium	SW-846 6010B	1	103545708005	12/21/2010 21:02	John P Hook	1
10146	Zirconium	SW-846 6010B	1	103495708003	12/18/2010 00:20	John W Yanzuk II	1
06124	Antimony	SW-846 6020	1	103491026003A	12/23/2010 15:42	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103491026003A	12/23/2010 15:42	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103491026003D	12/23/2010 15:42	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103491026003A	12/23/2010 15:42	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103491026003A	12/23/2010 15:42	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103491026003A	12/23/2010 15:42	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103491026003A	12/23/2010 15:42	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103491026003A	12/23/2010 15:42	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103491026003A	12/23/2010 15:42	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103491026003C	12/23/2010 15:42	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103491026003A	12/23/2010 15:42	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103491026003B	12/23/2010 15:42	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103491026003A	12/23/2010 15:42	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103491026003A	12/23/2010 15:42	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103491026003A	12/26/2010 07:04	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	103491026003A	12/23/2010 15:42	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	103495711003	12/20/2010 05:32	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	103495708003	12/16/2010 07:00	Denise K Conners	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	103545708005	12/20/2010 20:07	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103491026003	12/16/2010 07:35	Denise K Conners	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	103495711003	12/16/2010 08:55	Denise K Conners	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10362362202A	12/30/2010 14:03	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10357357201B	12/28/2010 03:52	Ashley M Adams	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	10359243202A	12/31/2010 11:06	Ashley M Adams	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10362362202A	12/28/2010 11:00	Erik J Frederiksen	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10357357201B	12/23/2010 19:30	Carolyn M Mastropietro	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10348182102B	12/14/2010 10:45	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10348039402B	12/14/2010 10:45	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10359243202A	12/25/2010 22:10	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	1	10349162401B	12/15/2010 09:13	William C Schwebel	1

\*—This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-067-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-067-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162917  
**LLI Group #** 1225037  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 13:55

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3415 SDG#: DE034-15

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04688	Aniline	62-53-3	900	U 900	2,700		1
04688	Benzidine	92-87-5	6,300	U 6,300	18,000		1
04688	Benzo(a)anthracene	56-55-3	97	J 90	900		1
04688	Benzo(a)pyrene	50-32-8	240	J 90	900		1
04688	Benzo(b)fluoranthene	205-99-2	130	J 90	900		1
04688	Benzo(g,h,i)perylene	191-24-2	120	J 90	900		1
04688	Benzoic acid	65-85-0	900	U 900	2,700		1
04688	Benzyl alcohol	100-51-6	900	U 900	2,700		1
04688	4-Bromophenyl-phenylether	101-55-3	90	U 90	900		1
04688	Carbazole	86-74-8	90	U 90	900		1
04688	4-Chloro-3-methylphenol	59-50-7	180	U 180	900		1
04688	4-Chloroaniline	106-47-8	360	U 360	900		1
04688	bis(2-Chloroethoxy)methane	111-91-1	90	U 90	900		1
04688	bis(2-Chloroethyl)ether	111-44-4	90	U 90	900		1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	90	U 90	900		1
04688	2-Chloronaphthalene	91-58-7	90	U 90	900		1
04688	2-Chlorophenol	95-57-8	90	U 90	900		1
04688	4-Chlorophenyl-phenylether	7005-72-3	180	U 180	900		1
04688	Chrysene	218-01-9	330	J 90	900		1
04688	Dibenzofuran	132-64-9	90	U 90	900		1
04688	1,2-Dichlorobenzene	95-50-1	90	U 90	900		1
04688	1,3-Dichlorobenzene	541-73-1	90	U 90	900		1
04688	1,4-Dichlorobenzene	106-46-7	90	U 90	900		1
04688	3,3'-Dichlorobenzidine	91-94-1	540	U 540	1,800		1
04688	2,4-Dichlorophenol	120-83-2	90	U 90	900		1
04688	2,4-Dimethylphenol	105-67-9	180	U 180	900		1
04688	3,5-Dimethylphenol	108-68-9	180	U 180	900		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	900	U 900	2,700		1
04688	2,4-Dinitrophenol	51-28-5	3,600	U 3,600	11,000		1
04688	2,4-Dinitrotoluene	121-14-2	180	U 180	900		1
04688	2,6-Dinitrotoluene	606-20-2	90	U 90	900		1
04688	1,2-Diphenylhydrazine	122-66-7	90	U 90	900		1
04688	Hexachlorobenzene	118-74-1	90	U 90	900		1
04688	Hexachlorobutadiene	87-68-3	360	U 360	900		1
04688	Hexachlorocyclopentadiene	77-47-4	900	U 900	2,700		1
04688	Hexachloroethane	67-72-1	90	U 90	900		1
04688	Isophorone	78-59-1	90	U 90	900		1
04688	2-Methylphenol	95-48-7	180	U 180	900		1
04688	4-Methylphenol	106-44-5	180	U 180	900		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	90	U 90	900		1
04688	3-Nitroaniline	99-09-2	180	U 180	900		1
04688	4-Nitroaniline	100-01-6	360	U 360	900		1
04688	Nitrobenzene	98-95-3	90	U 90	900		1
04688	2-Nitrophenol	88-75-5	90	U 90	900		1
04688	4-Nitrophenol	100-02-7	900	U 900	2,700		1
04688	N-Nitroso-di-n-propylamine	621-64-7	90	U 90	900		1
04688	N-Nitrosodiphenylamine	86-30-6	90	U 90	900		1

\*=This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-067-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-067-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162917  
**LLI Group #** 1225037  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 13:55

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3415 SDG#: DE034-15

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	900	U 900	2,700		1
04688	Phenol	108-95-2	90	U 90	900		1
04688	Pyrene	129-00-0	98	J 90	900		1
04688	1,2,4-Trichlorobenzene	120-82-1	90	U 90	900		1
04688	2,4,5-Trichlorophenol	95-95-4	180	U 180	900		1
04688	2,4,6-Trichlorophenol	88-06-2	180	U 180	900		1

Reporting limits were raised due to interference from the sample matrix.

GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	ug/kg
10138	Acenaphthene	83-32-9	3.6	U 3.6	9.0	1
10138	Acenaphthylene	208-96-8	1.8	U 1.8	9.0	1
10138	Anthracene	120-12-7	2.0	J 1.8	9.0	1
10138	Benzo(k)fluoranthene	207-08-9	27	U 3.6	9.0	1
10138	Butylbenzylphthalate	85-68-7	32	U 32	97	1
10138	Di-n-butylphthalate	84-74-2	32	U 32	97	1
10138	Dibenz(a,h)anthracene	53-70-3	6.2	J 3.6	9.0	1
10138	Diethylphthalate	84-66-2	32	U 32	97	1
10138	Dimethylphthalate	131-11-3	32	U 32	97	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	35	J 32	97	1
10138	Fluoranthene	206-44-0	97	U 3.6	9.0	1
10138	Fluorene	86-73-7	3.6	U 3.6	9.0	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	15	U 3.6	9.0	1
10138	1-Methylnaphthalene	90-12-0	3.6	U 3.6	9.0	1
10138	2-Methylnaphthalene	91-57-6	3.6	U 3.6	9.0	1
10138	Naphthalene	91-20-3	3.6	U 3.6	9.0	1
10138	N-Nitrosodimethylamine	62-75-9	3.6	U 3.6	9.0	1
10138	Di-n-octylphthalate	117-84-0	32	U 32	97	1
10138	Phenanthrene	85-01-8	19	U 3.6	9.0	1

Reporting limits were raised due to interference from the sample matrix.

Herbicides	SW-846 8151A	ug/kg	ug/kg	ug/kg	ug/kg
10401	2,4-D	94-75-7	1.3	U 1.3	3.9
10401	Dalapon	75-99-0	4.7	U 4.7	9.7
10401	2,4-DB	94-82-6	0.67	U 0.67	1.8
10401	Dicamba	1918-00-9	0.43	U 0.43	1.3
10401	Dinoseb	88-85-7	0.86	U 0.86	2.6
10401	2,4-DP (Dichlorprop)	120-36-5	0.86	U 0.86	1.8
10401	MCPA	94-74-6	130	U 130	270
10401	MCPP (Mecoprop)	93-65-2	340	U 81	270
10401	2,4,5-T	93-76-5	0.088	U 0.088	0.18
10401	2,4,5-TP	93-72-1	0.081	U 0.081	0.18

The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported.

Due to interfering peaks on the chromatogram, the values reported represent

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 Shaded result = The results or reporting limit exceeded the client-provided action limit.



# Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

**Sample Description:** SL-067-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-067-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162917  
**LLI Group #** 1225037  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 13:55

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3415 SDG#: DE034-15

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
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the lowest reporting limits attainable.  
 Despite numerous cleanup methods, our usual reporting limits were not attained.

Pesticides/PCBs		SW-846 8081A	ug/kg	U	ug/kg	ug/kg	ug/kg
01363	Aldrin	309-00-2	0.071	U	0.071	0.18	1
01363	Alpha BHC	319-84-6	0.037	U	0.037	0.18	1
01363	Beta BHC	319-85-7	0.065	U	0.065	0.18	1
01363	Gamma BHC - Lindane	58-89-9	0.037	U	0.037	0.18	1
01363	Chlordane	57-74-9	0.86	U	0.86	3.7	1
01363	p,p-DDD	72-54-8	0.071	U	0.071	0.37	1
01363	p,p-DDE	72-55-9	1.7	U	1.7	1.7	1
01363	p,p-DDT	50-29-3	1.3	U	1.3	1.3	1
01363	Delta BHC	319-86-8	0.039	U	0.039	0.18	1
01363	Dieldrin	60-57-1	0.43	U	0.43	0.43	1
01363	Endosulfan I	959-98-8	0.047	U	0.047	0.18	1
01363	Endosulfan II	33213-65-9	1.8	U	1.8	1.8	1
01363	Endosulfan Sulfate	1031-07-8	0.071	U	0.071	0.37	1
01363	Endrin	72-20-8	0.071	U	0.071	0.37	1
01363	Endrin Aldehyde	7421-93-4	0.22	U	0.22	0.37	1
01363	Endrin Ketone	53494-70-5	0.071	U	0.071	0.37	1
01363	Heptachlor	76-44-8	0.065	U	0.065	0.18	1
01363	Heptachlor Epoxide	1024-57-3	0.38	U	0.38	0.38	1
01363	Methoxychlor	72-43-5	0.37	U	0.37	1.8	1
01363	Mirex	2385-85-5	0.21	U	0.21	0.37	1
01363	Toxaphene	8001-35-2	2.4	U	2.4	7.1	1

Various analytes in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported.

Due to interfering peaks on the chromatogram from the presence of PCBs, the values reported represent the lowest reporting limits attainable. Despite numerous cleanup methods, our usual reporting limits were not attained.

Pesticides/PCBs		SW-846 8082	ug/kg	U	ug/kg	ug/kg	ug/kg
10225	Aroclor 5432	63496-31-1	1.1	U	1.1	3.6	1
10225	Aroclor 5442	12642-23-8	1.1	U	1.1	3.6	1
10225	Aroclor 5460	11126-42-4	1.1	U	1.1	3.6	1
10225	PCB-1016	12674-11-2	0.36	U	0.36	1.8	1
10225	PCB-1221	11104-28-2	0.54	U	0.54	1.8	1
10225	PCB-1232	11141-16-5	0.56	U	0.56	1.8	1
10225	PCB-1242	53469-21-9	0.54	U	0.54	1.8	1
10225	PCB-1248	12672-29-6	10		0.36	1.8	1
10225	PCB-1254	11097-69-1	4.6		0.36	1.8	1
10225	PCB-1260	11096-82-5	0.73	J	0.36	1.8	1
10225	PCB-1262	37324-23-5	0.36	U	0.36	1.8	1
10225	PCB-1268	11100-14-4	0.36	U	0.36	1.8	1

The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.

Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	mg/kg
01643	Aluminum	7429-90-5	9,310		5.37	21.3
07914	Boron	7440-42-8	9.20		0.950	5.33

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**Sample Description:** SL-067-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-067-SA5B-SS-0.0-0.5

LLI Sample # SW 6162917  
 LLI Group # 1225037  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 13:55

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3415 SDG#: DE034-15

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Metals</b>							
	<b>SW-846 6010B</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
01650	Calcium	7440-70-2	17,800	6.54	21.3		1
01654	Iron	7439-89-6	13,700	5.03	21.3		1
01656	Lithium	7439-93-2	13.4	0.23	2.1		1
01657	Magnesium	7439-95-4	3,260	2.71	10.7		1
06958	Manganese	7439-96-5	195	0.0832	0.533		1
10145	Phosphorus	7723-14-0	410	0.597	10.7		1
01662	Potassium	7440-09-7	2,410	19.2	53.3		1
01667	Sodium	7440-23-5	128	39.8	107		1
07968	Strontium	7440-24-6	39.5	0.0661	0.533		1
06969	Tin	7440-31-5	1.39 J	1.07	10.7		1
06970	Titanium	7440-32-6	979	0.398	1.05		1
10146	Zirconium	7440-67-7	1.83 J	0.896	5.33		1
	<b>SW-846 6020</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
06124	Antimony	7440-36-0	0.0647 U	0.0647	0.216		2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	4.44	0.0647	0.431		2
06126	Barium	7440-39-3	83.9	0.116	0.431		2
06127	Beryllium	7440-41-7	0.383	0.0172	0.108		2
06128	Cadmium	7440-43-9	0.333	0.0388	0.108		2
06131	Chromium	7440-47-3	20.1	0.129	0.431		2
06132	Cobalt	7440-48-4	6.53	0.0216	0.108		2
06133	Copper	7440-50-8	12.9	0.0711	0.431		2
06135	Lead	7439-92-1	9.23	0.0112	0.216		2
06138	Molybdenum	7439-98-7	0.641	0.0539	0.108		2
06139	Nickel	7440-02-0	13.2	0.108	0.431		2
06141	Selenium	7782-49-2	0.148 J	0.0431	0.431		2
06142	Silver	7440-22-4	0.0257 J	0.0129	0.108		2
06145	Thallium	7440-28-0	0.207	0.0323	0.108		2
06148	Vanadium	7440-62-2	25.1	0.0237	0.108		2
06149	Zinc	7440-66-6	88.4	0.603	3.23		2
	<b>SW-846 7471A</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
00159	Mercury	7439-97-6	0.0071 J	0.0030	0.104		1
<b>Wet Chemistry</b>							
	<b>EPA 300.0</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	0.86 U	0.86	1.1		1
	<b>EPA 314.0</b>		<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.7 U	9.7	32.3		1
	<b>SW-846 7199</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
05892	3a Cr VI by EPA 7199	18540-29-9	0.38 J	0.22	1.1		1
	<b>ASTM D1498</b>		<b>mV</b>	<b>mV</b>	<b>mV</b>	<b>mV</b>	

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**Sample Description:** SL-067-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-067-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162917  
**LLI Group #** 1225037  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

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Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3415 SDG#: DE034-15

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Wet Chemistry ASTM D1498</b>							
01821	Oxidation Reduction Potential	n.a.	389	10.0	10.0	mV	1
The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.							
<b>SW-846 9045C modified</b>							
			Std. Units	Std. Units	Std. Units	Std. Units	
00394	22a pH by 9045C	n.a.	8.50	0.0100	0.0100		1
<b>Wet Chemistry EPA 160.3 modified</b>							
11624	28a Moisture Content by 160.3	n.a.	7.2	0.50	0.50	%	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.							

### General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10349SLJ026	01/04/2011 19:51	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10349SLG026	12/29/2010 17:04	Chad A Moline	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10349SLG026	12/16/2010 07:00	Joseph S Feister	1
00381	BNA Soil Sonication	SW-846 3550B	1	10349SLJ026	12/16/2010 07:00	Kerrie A Freeburn	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	103490015A	12/18/2010 11:47	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	103500011A	12/24/2010 01:34	Jamie L Brillhart	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	103500025A	12/21/2010 15:06	Lindsey K Lafferty	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	2	103500011A	12/16/2010 16:50	JoElla L Rice	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	103500025A	12/17/2010 00:40	Roman Kuropatkin	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	103490015A	12/16/2010 02:10	Roman Kuropatkin	1
01643	Aluminum	SW-846 6010B	1	103495708003	12/18/2010 00:24	John W Yanzuk II	1
07914	Boron	SW-846 6010B	1	103495708003	12/18/2010 00:24	John W Yanzuk II	1
01650	Calcium	SW-846 6010B	1	103495708003	12/18/2010 00:24	John W Yanzuk II	1
01654	Iron	SW-846 6010B	1	103495708003	12/18/2010 00:24	John W Yanzuk II	1
01656	Lithium	SW-846 6010B	1	103495708003	12/18/2010 00:24	John W Yanzuk II	1
01657	Magnesium	SW-846 6010B	1	103495708003	12/18/2010 00:24	John W Yanzuk II	1

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**Sample Description:** SL-067-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-067-SA5B-SS-0.0-0.5

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E3415 SDG#: DE034-15

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06958	Manganese	SW-846 6010B	1	103495708003	12/18/2010 00:24	John W Yanzuk II	1
10145	Phosphorus	SW-846 6010B	1	103495708003	12/18/2010 00:24	John W Yanzuk II	1
01662	Potassium	SW-846 6010B	1	103495708003	12/18/2010 00:24	John W Yanzuk II	1
01667	Sodium	SW-846 6010B	1	103495708003	12/18/2010 00:24	John W Yanzuk II	1
07968	Strontium	SW-846 6010B	1	103495708003	12/18/2010 00:24	John W Yanzuk II	1
06969	Tin	SW-846 6010B	1	103495708003	12/18/2010 00:24	John W Yanzuk II	1
06970	Titanium	SW-846 6010B	1	103545708005	12/21/2010 21:06	John P Hook	1
10146	Zirconium	SW-846 6010B	1	103495708003	12/18/2010 00:24	John W Yanzuk II	1
06124	Antimony	SW-846 6020	1	103491026003A	12/23/2010 15:45	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103491026003A	12/23/2010 15:45	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103491026003D	12/23/2010 15:45	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103491026003A	12/23/2010 15:45	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103491026003A	12/23/2010 15:45	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103491026003A	12/23/2010 15:45	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103491026003A	12/23/2010 15:45	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103491026003A	12/23/2010 15:45	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103491026003A	12/23/2010 15:45	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103491026003C	12/23/2010 15:45	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103491026003A	12/23/2010 15:45	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103491026003B	12/23/2010 15:45	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103491026003A	12/23/2010 15:45	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103491026003A	12/23/2010 15:45	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103491026003A	12/26/2010 07:06	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	103491026003A	12/23/2010 15:45	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	103495711003	12/20/2010 05:33	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	103495708003	12/16/2010 07:00	Denise K Connors	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	103545708005	12/20/2010 20:07	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103491026003	12/16/2010 07:35	Denise K Connors	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	103495711003	12/16/2010 08:55	Denise K Connors	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10362362202A	12/30/2010 14:18	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10357357201B	12/28/2010 04:16	Ashley M Adams	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	10359243202A	12/31/2010 11:30	Ashley M Adams	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10362362202A	12/28/2010 11:00	Erik J Frederiksen	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10357357201B	12/23/2010 19:30	Carolyn M Mastropietro	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10348182103A	12/14/2010 13:00	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10348039403A	12/14/2010 13:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10359243202A	12/25/2010 22:10	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	1	10349162401B	12/15/2010 09:13	William C Schwebel	1

\*—This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-059-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-059-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162918  
**LLI Group #** 1225037  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 14:24

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3416 SDG#: DE034-16

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04688	Aniline	62-53-3	190	U 190	570		1
04688	Benzidine	92-87-5	1,300	U 1,300	3,800		1
04688	Benzoic acid	65-85-0	190	U 190	570		1
04688	Benzyl alcohol	100-51-6	190	U 190	570		1
04688	4-Bromophenyl-phenylether	101-55-3	19	U 19	190		1
04688	Carbazole	86-74-8	19	U 19	190		1
04688	4-Chloro-3-methylphenol	59-50-7	38	U 38	190		1
04688	4-Chloroaniline	106-47-8	77	U 77	190		1
04688	bis(2-Chloroethoxy)methane	111-91-1	19	U 19	190		1
04688	bis(2-Chloroethyl)ether	111-44-4	19	U 19	190		1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	19	U 19	190		1
04688	2-Chloronaphthalene	91-58-7	19	U 19	190		1
04688	2-Chlorophenol	95-57-8	19	U 19	190		1
04688	4-Chlorophenyl-phenylether	7005-72-3	38	U 38	190		1
04688	Dibenzofuran	132-64-9	19	U 19	190		1
04688	1,2-Dichlorobenzene	95-50-1	19	U 19	190		1
04688	1,3-Dichlorobenzene	541-73-1	19	U 19	190		1
04688	1,4-Dichlorobenzene	106-46-7	19	U 19	190		1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	380		1
04688	2,4-Dichlorophenol	120-83-2	19	U 19	190		1
04688	2,4-Dimethylphenol	105-67-9	38	U 38	190		1
04688	3,5-Dimethylphenol	108-68-9	38	U 38	190		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	190	U 190	570		1
04688	2,4-Dinitrophenol	51-28-5	770	U 770	2,300		1
04688	2,4-Dinitrotoluene	121-14-2	38	U 38	190		1
04688	2,6-Dinitrotoluene	606-20-2	19	U 19	190		1
04688	1,2-Diphenylhydrazine	122-66-7	19	U 19	190		1
04688	Hexachlorobenzene	118-74-1	19	U 19	190		1
04688	Hexachlorobutadiene	87-68-3	77	U 77	190		1
04688	Hexachlorocyclopentadiene	77-47-4	190	U 190	570		1
04688	Hexachloroethane	67-72-1	19	U 19	190		1
04688	Isophorone	78-59-1	19	U 19	190		1
04688	2-Methylphenol	95-48-7	38	U 38	190		1
04688	4-Methylphenol	106-44-5	38	U 38	190		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	19	U 19	190		1
04688	3-Nitroaniline	99-09-2	38	U 38	190		1
04688	4-Nitroaniline	100-01-6	77	U 77	190		1
04688	Nitrobenzene	98-95-3	19	U 19	190		1
04688	2-Nitrophenol	88-75-5	19	U 19	190		1
04688	4-Nitrophenol	100-02-7	190	U 190	570		1
04688	N-Nitroso-di-n-propylamine	621-64-7	19	U 19	190		1
04688	N-Nitrosodiphenylamine	86-30-6	19	U 19	190		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	190	U 190	570		1
04688	Phenol	108-95-2	19	U 19	190		1

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**Sample Description:** SL-059-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-059-SA5B-SS-0.0-0.5

LLI Sample # SW 6162918  
 LLI Group # 1225037  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 14:24

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3416 SDG#: DE034-16

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS Semivolatiles SW-846 8270C</b>			ug/kg	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	19	U 19	190		1
04688	2,4,5-Trichlorophenol	95-95-4	38	U 38	190		1
04688	2,4,6-Trichlorophenol	88-06-2	38	U 38	190		1
<b>GC/MS Semivolatiles SW-846 8270C SIM</b>			ug/kg	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.77	U 0.77	1.9		1
10138	Acenaphthylene	208-96-8	0.38	U 0.38	1.9		1
10138	Anthracene	120-12-7	0.38	U 0.38	1.9		1
10138	Benzo(a)anthracene	56-55-3	0.77	U 0.77	1.9		1
10138	Benzo(a)pyrene	50-32-8	0.77	U 0.77	1.9		1
10138	Benzo(b)fluoranthene	205-99-2	0.77	U 0.77	1.9		1
10138	Benzo(g,h,i)perylene	191-24-2	0.77	U 0.77	1.9		1
10138	Benzo(k)fluoranthene	207-08-9	0.77	U 0.77	1.9		1
10138	Butylbenzylphthalate	85-68-7	6.9	U 6.9	21		1
10138	Di-n-butylphthalate	84-74-2	6.9	U 6.9	21		1
10138	Chrysene	218-01-9	0.38	U 0.38	1.9		1
10138	Dibenz(a,h)anthracene	53-70-3	0.77	U 0.77	1.9		1
10138	Diethylphthalate	84-66-2	6.9	U 6.9	21		1
10138	Dimethylphthalate	131-11-3	6.9	U 6.9	21		1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	12	J 6.9	21		1
10138	Fluoranthene	206-44-0	0.77	U 0.77	1.9		1
10138	Fluorene	86-73-7	0.77	U 0.77	1.9		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.77	U 0.77	1.9		1
10138	1-Methylnaphthalene	90-12-0	0.77	U 0.77	1.9		1
10138	2-Methylnaphthalene	91-57-6	0.77	U 0.77	1.9		1
10138	Naphthalene	91-20-3	0.77	U 0.77	1.9		1
10138	N-Nitrosodimethylamine	62-75-9	0.77	U 0.77	1.9		1
10138	Di-n-octylphthalate	117-84-0	6.9	U 6.9	21		1
10138	Phenanthrene	85-01-8	0.77	U 0.77	1.9		1
10138	Pyrene	129-00-0	0.77	U 0.77	1.9		1
<b>Herbicides SW-846 8151A</b>			ug/kg	ug/kg	ug/kg	ug/kg	
10401	2,4-D	94-75-7	1.4	U 1.4	4.1		1
10401	Dalapon	75-99-0	5.1	U 5.1	10		1
10401	2,4-DB	94-82-6	0.89	J 0.71	2.0		1
10401	Dicamba	1918-00-9	0.46	U 0.46	1.4		1
10401	Dinoseb	88-85-7	0.92	U 0.92	2.8		1
10401	2,4-DP (Dichlorprop)	120-36-5	0.92	U 0.92	2.0		1
10401	MCPA	94-74-6	87	U 87	290		1
10401	MCPP (Mecoprop)	93-65-2	86	U 86	290		1
10401	2,4,5-T	93-76-5	0.094	U 0.094	0.20		1
10401	2,4,5-TP	93-72-1	0.086	U 0.086	0.20		1
<p>The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported.</p>							
<b>Pesticides/PCBs SW-846 8081A</b>			ug/kg	ug/kg	ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.076	U 0.076	0.19		1
01363	Alpha BHC	319-84-6	0.039	U 0.039	0.19		1

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**Sample Description:** SL-059-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-059-SA5B-SS-0.0-0.5

LLI Sample # SW 6162918  
 LLI Group # 1225037  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 14:24

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3416 SDG#: DE034-16

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Pesticides/PCBs</b>		<b>SW-846 8081A</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
01363	Beta BHC	319-85-7	0.069 U	0.069	0.19		1
01363	Gamma BHC - Lindane	58-89-9	0.039 U	0.039	0.19		1
01363	Chlordane	57-74-9	0.92 U	0.92	3.9		1
01363	p,p-DDD	72-54-8	0.076 U	0.076	0.39		1
01363	p,p-DDE	72-55-9	0.076 U	0.076	0.39		1
01363	p,p-DDT	50-29-3	0.13 U	0.13	0.39		1
01363	Delta BHC	319-86-8	0.041 U	0.041	0.19		1
01363	Dieldrin	60-57-1	0.076 U	0.076	0.39		1
01363	Endosulfan I	959-98-8	0.051 U	0.051	0.19		1
01363	Endosulfan II	33213-65-9	0.076 U	0.076	0.39		1
01363	Endosulfan Sulfate	1031-07-8	0.076 U	0.076	0.39		1
01363	Endrin	72-20-8	0.076 U	0.076	0.39		1
01363	Endrin Aldehyde	7421-93-4	0.076 U	0.076	0.39		1
01363	Endrin Ketone	53494-70-5	0.076 U	0.076	0.39		1
01363	Heptachlor	76-44-8	0.069 U	0.069	0.19		1
01363	Heptachlor Epoxide	1024-57-3	0.039 U	0.039	0.19		1
01363	Methoxychlor	72-43-5	0.39 U	0.39	1.9		1
01363	Mirex	2385-85-5	0.076 U	0.076	0.39		1
01363	Toxaphene	8001-35-2	2.5 U	2.5	7.6		1

Various analytes in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported.

<b>Pesticides/PCBs</b>		<b>SW-846 8082</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.8		1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.8		1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.8		1
10225	PCB-1016	12674-11-2	0.38 U	0.38	2.0		1
10225	PCB-1221	11104-28-2	0.57 U	0.57	2.0		1
10225	PCB-1232	11141-16-5	0.60 U	0.60	2.0		1
10225	PCB-1242	53469-21-9	0.57 U	0.57	2.0		1
10225	PCB-1248	12672-29-6	2.0	0.38	2.0		1
10225	PCB-1254	11097-69-1	0.38 U	0.38	2.0		1
10225	PCB-1260	11096-82-5	0.90 J	0.38	2.0		1
10225	PCB-1262	37324-23-5	0.38 U	0.38	2.0		1
10225	PCB-1268	11100-14-4	0.38 U	0.38	2.0		1

The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.

<b>Metals</b>		<b>SW-846 6010B</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
01643	Aluminum	7429-90-5	22,200	5.77	23.0		1
07914	Boron	7440-42-8	15.9	1.02	5.74		1
01650	Calcium	7440-70-2	76,000	35.2	115		5
01654	Iron	7439-89-6	29,700	5.41	23.0		1
01656	Lithium	7439-93-2	26.1	0.25	2.3		1
01657	Magnesium	7439-95-4	7,330	2.92	11.5		1
06958	Manganese	7439-96-5	345	0.0896	0.574		1
10145	Phosphorus	7723-14-0	525	0.643	11.5		1
01662	Potassium	7440-09-7	4,540	20.7	57.4		1
01667	Sodium	7440-23-5	170	42.8	115		1

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**Sample Description:** SL-059-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-059-SA5B-SS-0.0-0.5

LLI Sample # SW 6162918  
 LLI Group # 1225037  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 14:24

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
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 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3416 SDG#: DE034-16

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Metals</b>							
		<b>SW-846 6010B</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
07968	Strontium	7440-24-6	136	0.0712	0.574		1
06969	Tin	7440-31-5	1.35 J	1.15	11.5		1
06970	Titanium	7440-32-6	1,460	0.428	1.13		1
10146	Zirconium	7440-67-7	3.57 J	0.964	5.74		1
		<b>SW-846 6020</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
06124	Antimony	7440-36-0	0.0669 U	0.0669	0.223		2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	6.05	0.0669	0.446		2
06126	Barium	7440-39-3	121	0.120	0.446		2
06127	Beryllium	7440-41-7	0.642	0.0178	0.111		2
06128	Cadmium	7440-43-9	0.352	0.0401	0.111		2
06131	Chromium	7440-47-3	29.1	0.134	0.446		2
06132	Cobalt	7440-48-4	9.45	0.0223	0.111		2
06133	Copper	7440-50-8	14.5	0.0736	0.446		2
06135	Lead	7439-92-1	9.63	0.0116	0.223		2
06138	Molybdenum	7439-98-7	0.353	0.0557	0.111		2
06139	Nickel	7440-02-0	18.6	0.111	0.446		2
06141	Selenium	7782-49-2	0.223 J	0.0446	0.446		2
06142	Silver	7440-22-4	0.0325 J	0.0134	0.111		2
06145	Thallium	7440-28-0	0.377	0.0334	0.111		2
06148	Vanadium	7440-62-2	46.2	0.0245	0.111		2
06149	Zinc	7440-66-6	74.1	0.624	3.34		2
		<b>SW-846 7471A</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
00159	Mercury	7439-97-6	0.0031 U	0.0031	0.107		1
<b>Wet Chemistry</b>							
		<b>EPA 300.0</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	4.2	0.92	1.1		1
		<b>EPA 314.0</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10147	7a Perchlorate EPA 314.0	14797-73-0	10.3 U	10.3	34.4		1
		<b>SW-846 7199</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
05892	3a Cr VI by EPA 7199	18540-29-9	0.23 U	0.23	1.1		1
		<b>ASTM D1498</b>	<b>mV</b>	<b>mV</b>	<b>mV</b>	<b>mV</b>	
01821	Oxidation Reduction Potential	n.a.	424	10.0	10.0		1
	The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.						
		<b>SW-846 9045C modified</b>	<b>Std. Units</b>	<b>Std. Units</b>	<b>Std. Units</b>	<b>Std. Units</b>	
00394	22a pH by 9045C	n.a.	8.43	0.0100	0.0100		1

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**Sample Description:** SL-059-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-059-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162918  
**LLI Group #** 1225037  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 14:24

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
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Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3416 SDG#: DE034-16

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Wet Chemistry EPA 160.3 modified</b>							
11624	28a Moisture Content by 160.3	n.a.	12.9	0.50	0.50	%	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.							

### General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10349SLJ026	01/04/2011 20:17	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10349SLG026	12/29/2010 17:39	Chad A Moline	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10349SLG026	12/16/2010 07:00	Joseph S Feister	1
00381	BNA Soil Sonication	SW-846 3550B	1	10349SLJ026	12/16/2010 07:00	Kerrie A Freeburn	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	103490015A	12/18/2010 12:15	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	103500011A	12/24/2010 02:03	Jamie L Brillhart	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	103500025A	12/21/2010 15:24	Lindsey K Lafferty	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	2	103500011A	12/16/2010 16:50	JoElla L Rice	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	103500025A	12/17/2010 00:40	Roman Kuropatkin	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	103490015A	12/16/2010 02:10	Roman Kuropatkin	1
01643	Aluminum	SW-846 6010B	1	103495708003	12/18/2010 00:28	John W Yanzuk II	1
07914	Boron	SW-846 6010B	1	103495708003	12/18/2010 00:28	John W Yanzuk II	1
01650	Calcium	SW-846 6010B	1	103495708003	12/20/2010 13:08	Joanne M Gates	5
01654	Iron	SW-846 6010B	1	103495708003	12/18/2010 00:28	John W Yanzuk II	1
01656	Lithium	SW-846 6010B	1	103495708003	12/18/2010 00:28	John W Yanzuk II	1
01657	Magnesium	SW-846 6010B	1	103495708003	12/18/2010 00:28	John W Yanzuk II	1
06958	Manganese	SW-846 6010B	1	103495708003	12/18/2010 00:28	John W Yanzuk II	1
10145	Phosphorus	SW-846 6010B	1	103495708003	12/18/2010 00:28	John W Yanzuk II	1
01662	Potassium	SW-846 6010B	1	103495708003	12/18/2010 00:28	John W Yanzuk II	1
01667	Sodium	SW-846 6010B	1	103495708003	12/18/2010 00:28	John W Yanzuk II	1
07968	Strontium	SW-846 6010B	1	103495708003	12/18/2010 00:28	John W Yanzuk II	1
06969	Tin	SW-846 6010B	1	103495708003	12/18/2010 00:28	John W Yanzuk II	1
06970	Titanium	SW-846 6010B	1	103545708005	12/21/2010 21:10	John P Hook	1
10146	Zirconium	SW-846 6010B	1	103495708003	12/18/2010 00:28	John W Yanzuk II	1
06124	Antimony	SW-846 6020	1	103491026003A	12/23/2010 15:48	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103491026003A	12/23/2010 15:48	Choon Y Tian	2

\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-059-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-059-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162918  
**LLI Group #** 1225037  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 14:24

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3416 SDG#: DE034-16

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
06126	Barium	SW-846 6020	1	103491026003D	12/23/2010	15:48	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103491026003A	12/23/2010	15:48	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103491026003A	12/23/2010	15:48	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103491026003A	12/23/2010	15:48	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103491026003A	12/23/2010	15:48	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103491026003A	12/23/2010	15:48	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103491026003A	12/23/2010	15:48	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103491026003C	12/23/2010	15:48	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103491026003A	12/23/2010	15:48	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103491026003B	12/23/2010	15:48	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103491026003A	12/23/2010	15:48	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103491026003A	12/23/2010	15:48	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103491026003A	12/26/2010	07:07	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	103491026003A	12/23/2010	15:48	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	103495711003	12/20/2010	05:34	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	103495708003	12/16/2010	07:00	Denise K Connors	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	103545708005	12/20/2010	20:07	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103491026003	12/16/2010	07:35	Denise K Connors	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	103495711003	12/16/2010	08:55	Denise K Connors	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10362362202A	12/30/2010	14:33	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10357357201B	12/28/2010	04:40	Ashley M Adams	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	10359243202A	12/31/2010	11:38	Ashley M Adams	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10362362202A	12/28/2010	11:00	Erik J Frederiksen	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10357357201B	12/23/2010	19:30	Carolyn M Mastropietro	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10348182103A	12/14/2010	13:00	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10348039403A	12/14/2010	13:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10359243202A	12/25/2010	22:10	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	1	10349162401B	12/15/2010	09:13	William C Schwebel	1

\*-This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-065-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-065-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162919  
**LLI Group #** 1225037  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 14:25

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3417 SDG#: DE034-17

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04688	Aniline	62-53-3	180	U 180	550		1
04688	Benzidine	92-87-5	1,300	U 1,300	3,700		1
04688	Benzoic acid	65-85-0	180	U 180	550		1
04688	Benzyl alcohol	100-51-6	180	U 180	550		1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180		1
04688	Carbazole	86-74-8	18	U 18	180		1
04688	4-Chloro-3-methylphenol	59-50-7	37	U 37	180		1
04688	4-Chloroaniline	106-47-8	74	U 74	180		1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180		1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180		1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180		1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180		1
04688	2-Chlorophenol	95-57-8	18	U 18	180		1
04688	4-Chlorophenyl-phenylether	7005-72-3	37	U 37	180		1
04688	Dibenzofuran	132-64-9	18	U 18	180		1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180		1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180		1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180		1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	370		1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180		1
04688	2,4-Dimethylphenol	105-67-9	37	U 37	180		1
04688	3,5-Dimethylphenol	108-68-9	37	U 37	180		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	550		1
04688	2,4-Dinitrophenol	51-28-5	740	U 740	2,200		1
04688	2,4-Dinitrotoluene	121-14-2	37	U 37	180		1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180		1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180		1
04688	Hexachlorobenzene	118-74-1	18	U 18	180		1
04688	Hexachlorobutadiene	87-68-3	74	U 74	180		1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	550		1
04688	Hexachloroethane	67-72-1	18	U 18	180		1
04688	Isophorone	78-59-1	18	U 18	180		1
04688	2-Methylphenol	95-48-7	37	U 37	180		1
04688	4-Methylphenol	106-44-5	37	U 37	180		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	18	U 18	180		1
04688	3-Nitroaniline	99-09-2	37	U 37	180		1
04688	4-Nitroaniline	100-01-6	74	U 74	180		1
04688	Nitrobenzene	98-95-3	18	U 18	180		1
04688	2-Nitrophenol	88-75-5	18	U 18	180		1
04688	4-Nitrophenol	100-02-7	180	U 180	550		1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180		1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	180	U 180	550		1
04688	Phenol	108-95-2	18	U 18	180		1

\*=This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-065-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-065-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162919  
**LLI Group #** 1225037  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 14:25

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3417 SDG#: DE034-17

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS Semivolatiles SW-846 8270C</b>			ug/kg	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	18	U 18	180		1
04688	2,4,5-Trichlorophenol	95-95-4	37	U 37	180		1
04688	2,4,6-Trichlorophenol	88-06-2	37	U 37	180		1
<b>GC/MS Semivolatiles SW-846 8270C SIM</b>			ug/kg	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.74	U 0.74	1.8		1
10138	Acenaphthylene	208-96-8	0.37	U 0.37	1.8		1
10138	Anthracene	120-12-7	0.37	U 0.37	1.8		1
10138	Benzo(a)anthracene	56-55-3	0.74	U 0.74	1.8		1
10138	Benzo(a)pyrene	50-32-8	0.74	U 0.74	1.8		1
10138	Benzo(b)fluoranthene	205-99-2	0.87	J 0.74	1.8		1
10138	Benzo(g,h,i)perylene	191-24-2	0.74	U 0.74	1.8		1
10138	Benzo(k)fluoranthene	207-08-9	0.74	U 0.74	1.8		1
10138	Butylbenzylphthalate	85-68-7	6.6	U 6.6	20		1
10138	Di-n-butylphthalate	84-74-2	6.6	U 6.6	20		1
10138	Chrysene	218-01-9	0.60	J 0.37	1.8		1
10138	Dibenz(a,h)anthracene	53-70-3	0.74	U 0.74	1.8		1
10138	Diethylphthalate	84-66-2	6.6	U 6.6	20		1
10138	Dimethylphthalate	131-11-3	6.6	U 6.6	20		1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	9.3	J 6.6	20		1
10138	Fluoranthene	206-44-0	0.74	U 0.74	1.8		1
10138	Fluorene	86-73-7	0.74	U 0.74	1.8		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.74	U 0.74	1.8		1
10138	1-Methylnaphthalene	90-12-0	0.74	U 0.74	1.8		1
10138	2-Methylnaphthalene	91-57-6	0.74	U 0.74	1.8		1
10138	Naphthalene	91-20-3	0.74	U 0.74	1.8		1
10138	N-Nitrosodimethylamine	62-75-9	0.74	U 0.74	1.8		1
10138	Di-n-octylphthalate	117-84-0	6.6	U 6.6	20		1
10138	Phenanthrene	85-01-8	0.74	U 0.74	1.8		1
10138	Pyrene	129-00-0	0.74	U 0.74	1.8		1
<b>Herbicides SW-846 8151A</b>			ug/kg	ug/kg	ug/kg	ug/kg	
10401	2,4-D	94-75-7	1.3	U 1.3	4.0		1
10401	Dalapon	75-99-0	4.9	U 4.9	9.9		1
10401	2,4-DB	94-82-6	0.68	U 0.68	1.9		1
10401	Dicamba	1918-00-9	0.44	U 0.44	1.3		1
10401	Dinoseb	88-85-7	0.88	U 0.88	2.6		1
10401	2,4-DP (Dichlorprop)	120-36-5	0.88	U 0.88	1.9		1
10401	MCPA	94-74-6	84	U 84	280		1
10401	MCPP (Mecoprop)	93-65-2	83	U 83	280		1
10401	2,4,5-T	93-76-5	0.091	U 0.091	0.19		1
10401	2,4,5-TP	93-72-1	0.083	U 0.083	0.19		1
<p>The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported.</p>							
<b>Pesticides/PCBs SW-846 8081A</b>			ug/kg	ug/kg	ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.073	U 0.073	0.18		1
01363	Alpha BHC	319-84-6	0.038	U 0.038	0.18		1

\*=This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-065-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-065-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162919  
**LLI Group #** 1225037  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 14:25

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3417 SDG#: DE034-17

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Pesticides/PCBs</b>		<b>SW-846 8081A</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
01363	Beta BHC	319-85-7	0.066 U	0.066	0.18		1
01363	Gamma BHC - Lindane	58-89-9	0.038 U	0.038	0.18		1
01363	Chlordane	57-74-9	0.88 U	0.88	3.8		1
01363	p,p-DDD	72-54-8	0.13 U	0.13	0.38		1
01363	p,p-DDE	72-55-9	0.98 U	0.98	0.98		1
01363	p,p-DDT	50-29-3	0.84 U	0.84	0.84		1
01363	Delta BHC	319-86-8	0.040 U	0.040	0.18		1
01363	Dieldrin	60-57-1	0.28 U	0.28	0.38		1
01363	Endosulfan I	959-98-8	0.049 U	0.049	0.18		1
01363	Endosulfan II	33213-65-9	0.073 U	0.073	0.38		1
01363	Endosulfan Sulfate	1031-07-8	0.073 U	0.073	0.38		1
01363	Endrin	72-20-8	0.073 U	0.073	0.38		1
01363	Endrin Aldehyde	7421-93-4	0.17 U	0.17	0.38		1
01363	Endrin Ketone	53494-70-5	0.073 U	0.073	0.38		1
01363	Heptachlor	76-44-8	0.066 U	0.066	0.18		1
01363	Heptachlor Epoxide	1024-57-3	1.7 U	1.7	1.7		5
01363	Methoxychlor	72-43-5	0.38 U	0.38	1.8		1
01363	Mirex	2385-85-5	0.29 U	0.29	0.38		1
01363	Toxaphene	8001-35-2	2.4 U	2.4	7.3		1

Various analytes in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported.

Due to interfering peaks on the chromatogram from the presence of PCBs, the values reported represent the lowest reporting limits attainable. Despite numerous cleanup methods, our usual reporting limits were not attained.

Due to the nature of the sample extract matrix and interference from PCBs, a dilution was used for the analysis.

<b>Pesticides/PCBs</b>		<b>SW-846 8082</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>
10225	Aroclor 5432	63496-31-1	2.2 U	2.2	7.3	2
10225	Aroclor 5442	12642-23-8	2.2 U	2.2	7.3	2
10225	Aroclor 5460	11126-42-4	2.2 U	2.2	7.3	2
10225	PCB-1016	12674-11-2	0.73 U	0.73	3.8	2
10225	PCB-1221	11104-28-2	1.1 U	1.1	3.8	2
10225	PCB-1232	11141-16-5	1.1 U	1.1	3.8	2
10225	PCB-1242	53469-21-9	1.1 U	1.1	3.8	2
10225	PCB-1248	12672-29-6	15	0.73	3.8	2
10225	PCB-1254	11097-69-1	10	0.73	3.8	2
10225	PCB-1260	11096-82-5	3.1 J	0.73	3.8	2
10225	PCB-1262	37324-23-5	0.73 U	0.73	3.8	2
10225	PCB-1268	11100-14-4	0.73 U	0.73	3.8	2

The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.

<b>Metals</b>		<b>SW-846 6010B</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>
01643	Aluminum	7429-90-5	18,000	5.50	21.9	1
07914	Boron	7440-42-8	13.7	0.973	5.46	1
01650	Calcium	7440-70-2	44,500	6.70	21.9	1
01654	Iron	7439-89-6	29,100	5.15	21.9	1
01656	Lithium	7439-93-2	25.0	0.24	2.2	1

\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-065-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-065-SA5B-SS-0.0-0.5

LLI Sample # SW 6162919  
 LLI Group # 1225037  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 14:25

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3417 SDG#: DE034-17

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Metals</b>							
		<b>SW-846 6010B</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
01657	Magnesium	7439-95-4	6,320	2.78	10.9		1
06958	Manganese	7439-96-5	340	0.0852	0.546		1
10145	Phosphorus	7723-14-0	499	0.612	10.9		1
01662	Potassium	7440-09-7	4,160	19.7	54.6		1
01667	Sodium	7440-23-5	421	40.8	109		1
07968	Strontium	7440-24-6	88.2	0.0678	0.546		1
06969	Tin	7440-31-5	2.08 J	1.09	10.9		1
06970	Titanium	7440-32-6	1,360	0.407	1.07		1
10146	Zirconium	7440-67-7	2.10 J	0.918	5.46		1
		<b>SW-846 6020</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
06124	Antimony	7440-36-0	0.0643 U	0.0643	0.214		2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.							
06125	Arsenic	7440-38-2	5.04	0.0643	0.429		2
06126	Barium	7440-39-3	116	0.116	0.429		2
06127	Beryllium	7440-41-7	0.547	0.0171	0.107		2
06128	Cadmium	7440-43-9	0.298	0.0386	0.107		2
06131	Chromium	7440-47-3	24.2	0.129	0.429		2
06132	Cobalt	7440-48-4	7.63	0.0214	0.107		2
06133	Copper	7440-50-8	13.1	0.0707	0.429		2
06135	Lead	7439-92-1	8.80	0.0111	0.214		2
06138	Molybdenum	7439-98-7	0.460	0.0536	0.107		2
06139	Nickel	7440-02-0	16.3	0.107	0.429		2
06141	Selenium	7782-49-2	0.178 J	0.0429	0.429		2
06142	Silver	7440-22-4	0.0392 J	0.0129	0.107		2
06145	Thallium	7440-28-0	0.312	0.0321	0.107		2
06148	Vanadium	7440-62-2	39.3	0.0236	0.107		2
06149	Zinc	7440-66-6	72.4	0.600	3.21		2
		<b>SW-846 7471A</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
00159	Mercury	7439-97-6	0.0106 J	0.0031	0.110		1
<b>Wet Chemistry</b>							
		<b>EPA 300.0</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	3.5	0.88	1.1		1
		<b>EPA 314.0</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.9 U	9.9	33.1		1
		<b>SW-846 7199</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
05892	3a Cr VI by EPA 7199	18540-29-9	0.22 U	0.22	1.1		1
		<b>ASTM D1498</b>	<b>mV</b>	<b>mV</b>	<b>mV</b>	<b>mV</b>	
01821	Oxidation Reduction Potential	n.a.	443	10.0	10.0		1
The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.							

\*—This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-065-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-065-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162919  
**LLI Group #** 1225037  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 14:25

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3417 SDG#: DE034-17

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Wet Chemistry</b>							
		<b>SW-846 9045C modified</b>	Std. Units	Std. Units	Std. Units	Std. Units	
00394	22a pH by 9045C	n.a.	8.15	0.0100	0.0100		1
<b>Wet Chemistry</b>							
		<b>EPA 160.3 modified</b>	%	%	%	%	
11624	28a Moisture Content by 160.3	n.a.	9.4	0.50	0.50		1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.							

### General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10349SLJ026	01/04/2011 20:42	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10349SLG026	12/29/2010 18:13	Chad A Moline	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10349SLG026	12/16/2010 07:00	Joseph S Feister	1
00381	BNA Soil Sonication	SW-846 3550B	1	10349SLJ026	12/16/2010 07:00	Kerrie A Freeburn	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	103490015A	12/18/2010 12:42	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	103500011A	12/24/2010 02:18	Jamie L Brillhart	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	103500011A	12/24/2010 02:33	Jamie L Brillhart	5
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	103500025A	12/21/2010 15:43	Lindsey K Lafferty	2
11134	Pesticide Screen Soils Ext	SW-846 3550B	2	103500011A	12/16/2010 16:50	JoElla L Rice	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	103500025A	12/17/2010 00:40	Roman Kuropatkin	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	103490015A	12/16/2010 02:10	Roman Kuropatkin	1
01643	Aluminum	SW-846 6010B	1	103495708003	12/18/2010 00:32	John W Yanzuk II	1
07914	Boron	SW-846 6010B	1	103495708003	12/18/2010 00:32	John W Yanzuk II	1
01650	Calcium	SW-846 6010B	1	103495708003	12/18/2010 00:32	John W Yanzuk II	1
01654	Iron	SW-846 6010B	1	103495708003	12/18/2010 00:32	John W Yanzuk II	1
01656	Lithium	SW-846 6010B	1	103495708003	12/18/2010 00:32	John W Yanzuk II	1
01657	Magnesium	SW-846 6010B	1	103495708003	12/18/2010 00:32	John W Yanzuk II	1
06958	Manganese	SW-846 6010B	1	103495708003	12/18/2010 00:32	John W Yanzuk II	1
10145	Phosphorus	SW-846 6010B	1	103495708003	12/18/2010 00:32	John W Yanzuk II	1
01662	Potassium	SW-846 6010B	1	103495708003	12/18/2010 00:32	John W Yanzuk II	1
01667	Sodium	SW-846 6010B	1	103495708003	12/18/2010 00:32	John W Yanzuk II	1

\*=This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-065-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-065-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162919  
**LLI Group #** 1225037  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 14:25

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3417 SDG#: DE034-17

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07968	Strontium	SW-846 6010B	1	103495708003	12/18/2010 00:32	John W Yanzuk II	1
06969	Tin	SW-846 6010B	1	103495708003	12/18/2010 00:32	John W Yanzuk II	1
06970	Titanium	SW-846 6010B	1	103545708005	12/21/2010 21:14	John P Hook	1
10146	Zirconium	SW-846 6010B	1	103495708003	12/18/2010 00:32	John W Yanzuk II	1
06124	Antimony	SW-846 6020	1	103491026003A	12/23/2010 15:52	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103491026003A	12/23/2010 15:52	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103491026003D	12/23/2010 15:52	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103491026003A	12/23/2010 15:52	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103491026003A	12/23/2010 15:52	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103491026003A	12/23/2010 15:52	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103491026003A	12/23/2010 15:52	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103491026003A	12/23/2010 15:52	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103491026003A	12/23/2010 15:52	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103491026003C	12/23/2010 15:52	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103491026003A	12/23/2010 15:52	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103491026003B	12/23/2010 15:52	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103491026003A	12/23/2010 15:52	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103491026003A	12/23/2010 15:52	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103491026003A	12/26/2010 07:09	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	103491026003A	12/23/2010 15:52	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	103495711003	12/20/2010 05:35	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	103495708003	12/16/2010 07:00	Denise K Conners	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	103545708005	12/20/2010 20:07	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103491026003	12/16/2010 07:35	Denise K Conners	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	103495711003	12/16/2010 08:55	Denise K Conners	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10362362202A	12/30/2010 14:47	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10357357201B	12/28/2010 05:04	Ashley M Adams	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	10359243202A	12/31/2010 11:54	Ashley M Adams	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10362362202A	12/28/2010 11:00	Erik J Frederiksen	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10357357201B	12/23/2010 19:30	Carolyn M Mastropietro	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10348182103A	12/14/2010 13:00	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10348039403A	12/14/2010 13:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10359243202A	12/25/2010 22:10	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	1	10349162401B	12/15/2010 09:13	William C Schwebel	1

\*—This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.



# Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

**Sample Description:** SL-061-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-061-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162920  
**LLI Group #** 1225037  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 13:45

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3418 SDG#: DE034-18

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04688	Aniline	62-53-3	190	U 190	570		1
04688	Benzidine	92-87-5	1,300	U 1,300	3,800		1
04688	Benzo(b)fluoranthene	205-99-2	270	U 19	190		1
04688	Benzoic acid	65-85-0	190	U 190	570		1
04688	Benzyl alcohol	100-51-6	190	U 190	570		1
04688	4-Bromophenyl-phenylether	101-55-3	19	U 19	190		1
04688	Carbazole	86-74-8	19	U 19	190		1
04688	4-Chloro-3-methylphenol	59-50-7	38	U 38	190		1
04688	4-Chloroaniline	106-47-8	76	U 76	190		1
04688	bis(2-Chloroethoxy)methane	111-91-1	19	U 19	190		1
04688	bis(2-Chloroethyl)ether	111-44-4	19	U 19	190		1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	19	U 19	190		1
04688	2-Chloronaphthalene	91-58-7	19	U 19	190		1
04688	2-Chlorophenol	95-57-8	19	U 19	190		1
04688	4-Chlorophenyl-phenylether	7005-72-3	38	U 38	190		1
04688	Dibenzofuran	132-64-9	19	U 19	190		1
04688	1,2-Dichlorobenzene	95-50-1	19	U 19	190		1
04688	1,3-Dichlorobenzene	541-73-1	19	U 19	190		1
04688	1,4-Dichlorobenzene	106-46-7	19	U 19	190		1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	380		1
04688	2,4-Dichlorophenol	120-83-2	19	U 19	190		1
04688	2,4-Dimethylphenol	105-67-9	38	U 38	190		1
04688	3,5-Dimethylphenol	108-68-9	38	U 38	190		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	190	U 190	570		1
04688	2,4-Dinitrophenol	51-28-5	760	U 760	2,300		1
04688	2,4-Dinitrotoluene	121-14-2	38	U 38	190		1
04688	2,6-Dinitrotoluene	606-20-2	19	U 19	190		1
04688	1,2-Diphenylhydrazine	122-66-7	19	U 19	190		1
04688	Hexachlorobenzene	118-74-1	19	U 19	190		1
04688	Hexachlorobutadiene	87-68-3	76	U 76	190		1
04688	Hexachlorocyclopentadiene	77-47-4	190	U 190	570		1
04688	Hexachloroethane	67-72-1	19	U 19	190		1
04688	Isophorone	78-59-1	19	U 19	190		1
04688	2-Methylphenol	95-48-7	38	U 38	190		1
04688	4-Methylphenol	106-44-5	38	U 38	190		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	19	U 19	190		1
04688	3-Nitroaniline	99-09-2	38	U 38	190		1
04688	4-Nitroaniline	100-01-6	76	U 76	190		1
04688	Nitrobenzene	98-95-3	19	U 19	190		1
04688	2-Nitrophenol	88-75-5	19	U 19	190		1
04688	4-Nitrophenol	100-02-7	190	U 190	570		1
04688	N-Nitroso-di-n-propylamine	621-64-7	19	U 19	190		1
04688	N-Nitrosodiphenylamine	86-30-6	19	U 19	190		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	190	U 190	570		1

\*=This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-061-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-061-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162920  
**LLI Group #** 1225037  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 13:45

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3418 SDG#: DE034-18

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04688	Phenol	108-95-2	19	U 19	190		1
04688	1,2,4-Trichlorobenzene	120-82-1	19	U 19	190		1
04688	2,4,5-Trichlorophenol	95-95-4	38	U 38	190		1
04688	2,4,6-Trichlorophenol	88-06-2	38	U 38	190		1
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C SIM</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10138	Acenaphthene	83-32-9	0.76	U 0.76	1.9		1
10138	Acenaphthylene	208-96-8	0.38	U 0.38	1.9		1
10138	Anthracene	120-12-7	0.38	U 0.38	1.9		1
10138	Benzo(a)anthracene	56-55-3	0.76	U 0.76	1.9		1
10138	Benzo(a)pyrene	50-32-8	0.76	U 0.76	1.9		1
10138	Benzo(g,h,i)perylene	191-24-2	0.76	U 0.76	1.9		1
10138	Benzo(k)fluoranthene	207-08-9	0.76	U 0.76	1.9		1
10138	Butylbenzylphthalate	85-68-7	16	J 6.9	21		1
10138	Di-n-butylphthalate	84-74-2	6.9	U 6.9	21		1
10138	Chrysene	218-01-9	0.68	J 0.38	1.9		1
10138	Dibenz(a,h)anthracene	53-70-3	0.76	U 0.76	1.9		1
10138	Diethylphthalate	84-66-2	6.9	U 6.9	21		1
10138	Dimethylphthalate	131-11-3	6.9	U 6.9	21		1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	12	J 6.9	21		1
10138	Fluoranthene	206-44-0	0.76	U 0.76	1.9		1
10138	Fluorene	86-73-7	0.76	U 0.76	1.9		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.76	U 0.76	1.9		1
10138	1-Methylnaphthalene	90-12-0	0.76	U 0.76	1.9		1
10138	2-Methylnaphthalene	91-57-6	0.76	U 0.76	1.9		1
10138	Naphthalene	91-20-3	0.76	U 0.76	1.9		1
10138	N-Nitrosodimethylamine	62-75-9	0.76	U 0.76	1.9		1
10138	Di-n-octylphthalate	117-84-0	6.9	U 6.9	21		1
10138	Phenanthrene	85-01-8	0.76	U 0.76	1.9		1
10138	Pyrene	129-00-0	0.76	U 0.76	1.9		1
<b>Herbicides</b>	<b>SW-846 8151A</b>		<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10401	2,4-D	94-75-7	1.4	U 1.4	4.1		1
10401	Dalapon	75-99-0	5.0	U 5.0	10		1
10401	2,4-DB	94-82-6	0.71	U 0.71	1.9		1
10401	Dicamba	1918-00-9	0.46	U 0.46	1.4		1
10401	Dinoseb	88-85-7	0.92	U 0.92	2.7		1
10401	2,4-DP (Dichlorprop)	120-36-5	0.92	U 0.92	1.9		1
10401	MCPA	94-74-6	110	J 87	290		1
10401	MCPP (Mecoprop)	93-65-2	86	U 86	290		1
10401	2,4,5-T	93-76-5	0.094	U 0.094	0.19		1
10401	2,4,5-TP	93-72-1	0.086	U 0.086	0.19		1
<p>The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported.</p>							
<b>Pesticides/PCBs</b>	<b>SW-846 8081A</b>		<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
01363	Aldrin	309-00-2	0.076	U 0.076	0.19		1
01363	Alpha BHC	319-84-6	0.039	U 0.039	0.19		1

\*=This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-061-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-061-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162920  
**LLI Group #** 1225037  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 13:45

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3418 SDG#: DE034-18

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Pesticides/PCBs</b>		<b>SW-846 8081A</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
01363	Beta BHC	319-85-7	0.069 U	0.069	0.19		1
01363	Gamma BHC - Lindane	58-89-9	0.039 U	0.039	0.19		1
01363	Chlordane	57-74-9	0.92 U	0.92	3.9		1
01363	p,p-DDD	72-54-8	0.076 U	0.076	0.39		1
01363	p,p-DDE	72-55-9	0.28 U	0.28	0.39		1
01363	p,p-DDT	50-29-3	0.55 U	0.55	0.55		1
01363	Delta BHC	319-86-8	0.041 U	0.041	0.19		1
01363	Dieldrin	60-57-1	0.12 U	0.12	0.39		1
01363	Endosulfan I	959-98-8	0.050 U	0.050	0.19		1
01363	Endosulfan II	33213-65-9	0.076 U	0.076	0.39		1
01363	Endosulfan Sulfate	1031-07-8	0.076 U	0.076	0.39		1
01363	Endrin	72-20-8	0.076 U	0.076	0.39		1
01363	Endrin Aldehyde	7421-93-4	0.22 U	0.22	0.39		1
01363	Endrin Ketone	53494-70-5	0.076 U	0.076	0.39		1
01363	Heptachlor	76-44-8	0.069 U	0.069	0.19		1
01363	Heptachlor Epoxide	1024-57-3	0.077 U	0.077	0.19		1
01363	Methoxychlor	72-43-5	0.39 U	0.39	1.9		1
01363	Mirex	2385-85-5	0.14 U	0.14	0.39		1
01363	Toxaphene	8001-35-2	2.5 U	2.5	7.6		1

Various analytes in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported.

Due to interfering peaks on the chromatogram from the presence of PCBs, the values reported represent the lowest reporting limits attainable. Despite numerous cleanup methods, our usual reporting limits were not attained.

<b>Pesticides/PCBs</b>		<b>SW-846 8082</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.8	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.8	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.8	1
10225	PCB-1016	12674-11-2	0.38 U	0.38	1.9	1
10225	PCB-1221	11104-28-2	0.57 U	0.57	1.9	1
10225	PCB-1232	11141-16-5	0.60 U	0.60	1.9	1
10225	PCB-1242	53469-21-9	0.57 U	0.57	1.9	1
10225	PCB-1248	12672-29-6	12	0.38	1.9	1
10225	PCB-1254	11097-69-1	5.5	0.38	1.9	1
10225	PCB-1260	11096-82-5	3.3	0.38	1.9	1
10225	PCB-1262	37324-23-5	0.38 U	0.38	1.9	1
10225	PCB-1268	11100-14-4	0.38 U	0.38	1.9	1

The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.

<b>Metals</b>		<b>SW-846 6010B</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>
01643	Aluminum	7429-90-5	19,600	5.59	22.2	1
07914	Boron	7440-42-8	14.7	0.990	5.56	1
01650	Calcium	7440-70-2	42,700	6.82	22.2	1
01654	Iron	7439-89-6	27,000	5.24	22.2	1
01656	Lithium	7439-93-2	25.3	0.24	2.2	1
01657	Magnesium	7439-95-4	6,610	2.82	11.1	1
06958	Manganese	7439-96-5	323	0.0867	0.556	1

\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-061-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-061-SA5B-SS-0.0-0.5

LLI Sample # SW 6162920  
 LLI Group # 1225037  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 13:45

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3418 SDG#: DE034-18

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Metals</b>							
		<b>SW-846 6010B</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
10145	Phosphorus	7723-14-0	502	0.623	11.1		1
01662	Potassium	7440-09-7	4,240	20.0	55.6		1
01667	Sodium	7440-23-5	149	41.5	111		1
07968	Strontium	7440-24-6	89.5	0.0690	0.556		1
06969	Tin	7440-31-5	2.04 J	1.11	11.1		1
06970	Titanium	7440-32-6	1,420	0.431	1.13		1
10146	Zirconium	7440-67-7	3.33 J	0.934	5.56		1
		<b>SW-846 6020</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
06124	Antimony	7440-36-0	0.0703 J	0.0674	0.225		2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	6.71	0.0674	0.449		2
06126	Barium	7440-39-3	127	0.121	0.449		2
06127	Beryllium	7440-41-7	0.664	0.0180	0.112		2
06128	Cadmium	7440-43-9	0.393	0.0404	0.112		2
06131	Chromium	7440-47-3	31.5	0.135	0.449		2
06132	Cobalt	7440-48-4	9.87	0.0225	0.112		2
06133	Copper	7440-50-8	15.7	0.0741	0.449		2
06135	Lead	7439-92-1	11.3	0.0117	0.225		2
06138	Molybdenum	7439-98-7	0.618	0.0562	0.112		2
06139	Nickel	7440-02-0	19.9	0.112	0.449		2
06141	Selenium	7782-49-2	0.221 J	0.0449	0.449		2
06142	Silver	7440-22-4	0.0260 J	0.0135	0.112		2
06145	Thallium	7440-28-0	0.387	0.0337	0.112		2
06148	Vanadium	7440-62-2	45.1	0.0247	0.112		2
06149	Zinc	7440-66-6	91.8	0.629	3.37		2
		<b>SW-846 7471A</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
00159	Mercury	7439-97-6	0.0175 J	0.0032	0.111		1
<b>Wet Chemistry</b>							
		<b>EPA 300.0</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	3.9	0.92	1.1		1
		<b>EPA 314.0</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10147	7a Perchlorate EPA 314.0	14797-73-0	10.3 U	10.3	34.4		1
		<b>SW-846 7199</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
05892	3a Cr VI by EPA 7199	18540-29-9	0.23 U	0.23	1.1		1
		<b>ASTM D1498</b>	<b>mV</b>	<b>mV</b>	<b>mV</b>	<b>mV</b>	
01821	Oxidation Reduction Potential	n.a.	418	10.0	10.0		1
	The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.						

\*-This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-061-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-061-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162920  
**LLI Group #** 1225037  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 13:45

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3418 SDG#: DE034-18

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Wet Chemistry</b>							
		<b>SW-846 9045C modified</b>	Std. Units	Std. Units	Std. Units	Std. Units	
00394	22a pH by 9045C	n.a.	8.61	0.0100	0.0100		1
<b>Wet Chemistry</b>							
		<b>EPA 160.3 modified</b>	%	%	%	%	
11624	28a Moisture Content by 160.3	n.a.	12.7	0.50	0.50		1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.							

### General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10349SLJ026	01/10/2011 06:24	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10349SLG026	12/29/2010 18:48	Chad A Moline	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10349SLG026	12/16/2010 07:00	Joseph S Feister	1
00381	BNA Soil Sonication	SW-846 3550B	1	10349SLJ026	12/16/2010 07:00	Kerrie A Freeburn	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	103490015A	12/18/2010 13:09	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	103510029A	12/29/2010 18:08	Jamie L Brillhart	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	103500025A	12/21/2010 16:01	Lindsey K Lafferty	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	103510029A	12/20/2010 07:00	Joseph S Feister	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	103500025A	12/17/2010 00:40	Roman Kuropatkin	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	103490015A	12/16/2010 02:10	Roman Kuropatkin	1
01643	Aluminum	SW-846 6010B	1	103495708003	12/18/2010 00:36	John W Yanzuk II	1
07914	Boron	SW-846 6010B	1	103495708003	12/18/2010 00:36	John W Yanzuk II	1
01650	Calcium	SW-846 6010B	1	103495708003	12/18/2010 00:36	John W Yanzuk II	1
01654	Iron	SW-846 6010B	1	103495708003	12/18/2010 00:36	John W Yanzuk II	1
01656	Lithium	SW-846 6010B	1	103495708003	12/18/2010 00:36	John W Yanzuk II	1
01657	Magnesium	SW-846 6010B	1	103495708003	12/18/2010 00:36	John W Yanzuk II	1
06958	Manganese	SW-846 6010B	1	103495708003	12/18/2010 00:36	John W Yanzuk II	1
10145	Phosphorus	SW-846 6010B	1	103495708003	12/18/2010 00:36	John W Yanzuk II	1
01662	Potassium	SW-846 6010B	1	103495708003	12/18/2010 00:36	John W Yanzuk II	1
01667	Sodium	SW-846 6010B	1	103495708003	12/18/2010 00:36	John W Yanzuk II	1
07968	Strontium	SW-846 6010B	1	103495708003	12/18/2010 00:36	John W Yanzuk II	1
06969	Tin	SW-846 6010B	1	103495708003	12/18/2010 00:36	John W Yanzuk II	1

\*=This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-061-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-061-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162920  
**LLI Group #** 1225037  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 13:45

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3418 SDG#: DE034-18

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06970	Titanium	SW-846 6010B	1	103545708005	12/21/2010 21:18	John P Hook	1
10146	Zirconium	SW-846 6010B	1	103495708003	12/18/2010 00:36	John W Yanzuk II	1
06124	Antimony	SW-846 6020	1	103491026003A	12/23/2010 15:55	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103491026003A	12/23/2010 15:55	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103491026003D	12/23/2010 15:55	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103491026003A	12/23/2010 15:55	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103491026003A	12/23/2010 15:55	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103491026003A	12/23/2010 15:55	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103491026003A	12/23/2010 15:55	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103491026003A	12/23/2010 15:55	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103491026003A	12/23/2010 15:55	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103491026003C	12/23/2010 15:55	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103491026003A	12/23/2010 15:55	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103491026003B	12/23/2010 15:55	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103491026003A	12/23/2010 15:55	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103491026003A	12/23/2010 15:55	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103491026003A	12/26/2010 07:11	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	103491026003A	12/23/2010 15:55	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	103495711003	12/20/2010 05:37	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	103495708003	12/16/2010 07:00	Denise K Conners	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	103545708005	12/20/2010 20:07	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103491026003	12/16/2010 07:35	Denise K Conners	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	103495711003	12/16/2010 08:55	Denise K Conners	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10362362202A	12/30/2010 15:01	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10357357201B	12/28/2010 05:28	Ashley M Adams	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	10359243202A	12/31/2010 12:10	Ashley M Adams	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10362362202A	12/28/2010 11:00	Erik J Frederiksen	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10357357201B	12/23/2010 19:30	Carolyn M Mastropietro	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10348182103A	12/14/2010 13:00	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10348039403A	12/14/2010 13:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10359243202A	12/25/2010 22:10	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	1	10349162401B	12/15/2010 09:13	William C Schwebel	1

\*—This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.



# Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

**Sample Description:** SL-070-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-070-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162921  
**LLI Group #** 1225037  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 13:34

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3419 SDG#: DE034-19\*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04688	Aniline	62-53-3	200	U 200	590		1
04688	Benzidine	92-87-5	1,400	U 1,400	3,900		1
04688	Benzo(b)fluoranthene	205-99-2	280	U 20	200		1
04688	Benzoic acid	65-85-0	200	U 200	590		1
04688	Benzyl alcohol	100-51-6	200	U 200	590		1
04688	4-Bromophenyl-phenylether	101-55-3	20	U 20	200		1
04688	Carbazole	86-74-8	20	U 20	200		1
04688	4-Chloro-3-methylphenol	59-50-7	39	U 39	200		1
04688	4-Chloroaniline	106-47-8	79	U 79	200		1
04688	bis(2-Chloroethoxy)methane	111-91-1	20	U 20	200		1
04688	bis(2-Chloroethyl)ether	111-44-4	20	U 20	200		1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	20	U 20	200		1
04688	2-Chloronaphthalene	91-58-7	20	U 20	200		1
04688	2-Chlorophenol	95-57-8	20	U 20	200		1
04688	4-Chlorophenyl-phenylether	7005-72-3	39	U 39	200		1
04688	Dibenzofuran	132-64-9	20	U 20	200		1
04688	1,2-Dichlorobenzene	95-50-1	20	U 20	200		1
04688	1,3-Dichlorobenzene	541-73-1	20	U 20	200		1
04688	1,4-Dichlorobenzene	106-46-7	20	U 20	200		1
04688	3,3'-Dichlorobenzidine	91-94-1	120	U 120	390		1
04688	2,4-Dichlorophenol	120-83-2	20	U 20	200		1
04688	2,4-Dimethylphenol	105-67-9	39	U 39	200		1
04688	3,5-Dimethylphenol	108-68-9	39	U 39	200		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	200	U 200	590		1
04688	2,4-Dinitrophenol	51-28-5	790	U 790	2,400		1
04688	2,4-Dinitrotoluene	121-14-2	39	U 39	200		1
04688	2,6-Dinitrotoluene	606-20-2	20	U 20	200		1
04688	1,2-Diphenylhydrazine	122-66-7	20	U 20	200		1
04688	Hexachlorobenzene	118-74-1	20	U 20	200		1
04688	Hexachlorobutadiene	87-68-3	79	U 79	200		1
04688	Hexachlorocyclopentadiene	77-47-4	200	U 200	590		1
04688	Hexachloroethane	67-72-1	20	U 20	200		1
04688	Isophorone	78-59-1	20	U 20	200		1
04688	2-Methylphenol	95-48-7	39	U 39	200		1
04688	4-Methylphenol	106-44-5	39	U 39	200		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	20	U 20	200		1
04688	3-Nitroaniline	99-09-2	39	U 39	200		1
04688	4-Nitroaniline	100-01-6	79	U 79	200		1
04688	Nitrobenzene	98-95-3	20	U 20	200		1
04688	2-Nitrophenol	88-75-5	20	U 20	200		1
04688	4-Nitrophenol	100-02-7	200	U 200	590		1
04688	N-Nitroso-di-n-propylamine	621-64-7	20	U 20	200		1
04688	N-Nitrosodiphenylamine	86-30-6	20	U 20	200		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	200	U 200	590		1

\*=This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.



# Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: SL-070-SA5B-SS-0.0-0.5 Soil  
SSFL Area IV Collocated Soil Sampling  
SL-070-SA5B-SS-0.0-0.5

LLI Sample # SW 6162921  
LLI Group # 1225037  
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 13:34

CDM Federal Programs Corp.  
14420 Albemarle Point Place  
Suite 210  
Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3419 SDG#: DE034-19\*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04688	Phenol	108-95-2	20	U 20	200		1
04688	1,2,4-Trichlorobenzene	120-82-1	20	U 20	200		1
04688	2,4,5-Trichlorophenol	95-95-4	39	U 39	200		1
04688	2,4,6-Trichlorophenol	88-06-2	39	U 39	200		1
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C SIM</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10138	Acenaphthene	83-32-9	0.79	U 0.79	2.0		1
10138	Acenaphthylene	208-96-8	0.59	J 0.39	2.0		1
10138	Anthracene	120-12-7	2.5	U 0.39	2.0		1
10138	Benzo(a)anthracene	56-55-3	6.3	U 0.79	2.0		1
10138	Benzo(a)pyrene	50-32-8	8.2	U 0.79	2.0		1
10138	Benzo(g,h,i)perylene	191-24-2	4.4	U 0.79	2.0		1
10138	Benzo(k)fluoranthene	207-08-9	7.4	U 0.79	2.0		1
10138	Butylbenzylphthalate	85-68-7	7.1	U 7.1	21		1
10138	Di-n-butylphthalate	84-74-2	7.5	J 7.1	21		1
10138	Chrysene	218-01-9	15	U 0.39	2.0		1
10138	Dibenz(a,h)anthracene	53-70-3	1.5	J 0.79	2.0		1
10138	Diethylphthalate	84-66-2	7.1	U 7.1	21		1
10138	Dimethylphthalate	131-11-3	7.1	U 7.1	21		1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	20	J 7.1	21		1
10138	Fluoranthene	206-44-0	28	U 0.79	2.0		1
10138	Fluorene	86-73-7	0.79	U 0.79	2.0		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	3.1	U 0.79	2.0		1
10138	1-Methylnaphthalene	90-12-0	0.79	U 0.79	2.0		1
10138	2-Methylnaphthalene	91-57-6	0.79	U 0.79	2.0		1
10138	Naphthalene	91-20-3	0.79	U 0.79	2.0		1
10138	N-Nitrosodimethylamine	62-75-9	0.79	U 0.79	2.0		1
10138	Di-n-octylphthalate	117-84-0	7.1	U 7.1	21		1
10138	Phenanthrene	85-01-8	9.3	U 0.79	2.0		1
10138	Pyrene	129-00-0	18	U 0.79	2.0		1
<b>Herbicides</b>	<b>SW-846 8151A</b>		<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10401	2,4-D	94-75-7	1.4	U 1.4	4.2		1
10401	Dalapon	75-99-0	5.2	U 5.2	11		1
10401	2,4-DB	94-82-6	0.73	U 0.73	2.0		1
10401	Dicamba	1918-00-9	0.47	U 0.47	1.4		1
10401	Dinoseb	88-85-7	0.94	U 0.94	2.8		1
10401	2,4-DP (Dichlorprop)	120-36-5	0.94	U 0.94	2.0		1
10401	MCPA	94-74-6	160	U 160	290		1
10401	MCPP (Mecoprop)	93-65-2	88	U 88	290		1
10401	2,4,5-T	93-76-5	0.097	U 0.097	0.20		1
10401	2,4,5-TP	93-72-1	0.088	U 0.088	0.20		1

The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported.

Due to interfering peaks on the chromatogram, the values reported represent the lowest reporting limits attainable.

Despite numerous cleanup methods, our usual reporting limits were not

\*=This limit was used in the evaluation of the final result  
Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-070-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-070-SA5B-SS-0.0-0.5

LLI Sample # SW 6162921  
 LLI Group # 1225037  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 13:34

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3419 SDG#: DE034-19\*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
attained.							
<b>Pesticides/PCBs</b>		<b>SW-846 8081A</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
01363	Aldrin	309-00-2	0.078 U	0.078	0.20		1
01363	Alpha BHC	319-84-6	0.040 U	0.040	0.20		1
01363	Beta BHC	319-85-7	0.071 U	0.071	0.20		1
01363	Gamma BHC - Lindane	58-89-9	0.040 U	0.040	0.20		1
01363	Chlordane	57-74-9	0.94 U	0.94	4.0		1
01363	p,p-DDD	72-54-8	0.078 U	0.078	0.40		1
01363	p,p-DDE	72-55-9	0.078 U	0.078	0.40		1
01363	p,p-DDT	50-29-3	0.37 U	0.37	0.40		1
01363	Delta BHC	319-86-8	0.042 U	0.042	0.20		1
01363	Dieldrin	60-57-1	0.17 U	0.17	0.40		1
01363	Endosulfan I	959-98-8	0.052 U	0.052	0.20		1
01363	Endosulfan II	33213-65-9	0.078 U	0.078	0.40		1
01363	Endosulfan Sulfate	1031-07-8	0.092 U	0.092	0.40		1
01363	Endrin	72-20-8	0.078 U	0.078	0.40		1
01363	Endrin Aldehyde	7421-93-4	0.090 U	0.090	0.40		1
01363	Endrin Ketone	53494-70-5	0.078 U	0.078	0.40		1
01363	Heptachlor	76-44-8	0.071 U	0.071	0.20		1
01363	Heptachlor Epoxide	1024-57-3	0.11 J	0.11	0.20		1
01363	Methoxychlor	72-43-5	0.40 U	0.40	2.0		1
01363	Mirex	2385-85-5	0.24 U	0.24	0.40		1
01363	Toxaphene	8001-35-2	2.6 U	2.6	7.8		1

Various analytes in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported.

Due to interfering peaks on the chromatogram from the presence of PCBs, the values reported represent the lowest reporting limits attainable. Despite numerous cleanup methods, our usual reporting limits were not attained.

<b>Pesticides/PCBs</b>		<b>SW-846 8082</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>
10225	Aroclor 5432	63496-31-1	2.4 U	2.4	7.8	2
10225	Aroclor 5442	12642-23-8	2.4 U	2.4	7.8	2
10225	Aroclor 5460	11126-42-4	2.4 U	2.4	7.8	2
10225	PCB-1016	12674-11-2	0.78 U	0.78	4.0	2
10225	PCB-1221	11104-28-2	1.2 U	1.2	4.0	2
10225	PCB-1232	11141-16-5	1.2 U	1.2	4.0	2
10225	PCB-1242	53469-21-9	1.2 U	1.2	4.0	2
10225	PCB-1248	12672-29-6	15	0.78	4.0	2
10225	PCB-1254	11097-69-1	15	0.78	4.0	2
10225	PCB-1260	11096-82-5	9.6	0.78	4.0	2
10225	PCB-1262	37324-23-5	0.78 U	0.78	4.0	2
10225	PCB-1268	11100-14-4	0.78 U	0.78	4.0	2

The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.

The surrogate data is outside the QC limits due to unresolvable matrix problems evident in the sample chromatogram.

<b>Metals</b>		<b>SW-846 6010B</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>
01643	Aluminum	7429-90-5	20,100	5.87	23.3	1

\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-070-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-070-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162921  
**LLI Group #** 1225037  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 13:34

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 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3419 SDG#: DE034-19\*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Metals</b>							
	<b>SW-846 6010B</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
07914	Boron	7440-42-8	15.9	1.04	5.83		1
01650	Calcium	7440-70-2	72,300	35.7	117		5
01654	Iron	7439-89-6	26,500	5.49	23.3		1
01656	Lithium	7439-93-2	24.0	0.26	2.3		1
01657	Magnesium	7439-95-4	6,880	2.96	11.7		1
06958	Manganese	7439-96-5	329	0.0910	0.583		1
10145	Phosphorus	7723-14-0	519	0.653	11.7		1
01662	Potassium	7440-09-7	4,450	21.0	58.3		1
01667	Sodium	7440-23-5	291	43.5	117		1
07968	Strontium	7440-24-6	126	0.0723	0.583		1
06969	Tin	7440-31-5	1.26 J	1.17	11.7		1
06970	Titanium	7440-32-6	1,370	0.430	1.13		1
10146	Zirconium	7440-67-7	3.14 J	0.980	5.83		1
	<b>SW-846 6020</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
06124	Antimony	7440-36-0	0.0788 J	0.0693	0.231		2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	5.87	0.0693	0.462		2
06126	Barium	7440-39-3	125	0.125	0.462		2
06127	Beryllium	7440-41-7	0.620	0.0185	0.115		2
06128	Cadmium	7440-43-9	0.355	0.0416	0.115		2
06131	Chromium	7440-47-3	28.8	0.139	0.462		2
06132	Cobalt	7440-48-4	9.76	0.0231	0.115		2
06133	Copper	7440-50-8	15.3	0.0762	0.462		2
06135	Lead	7439-92-1	9.85	0.0120	0.231		2
06138	Molybdenum	7439-98-7	0.447	0.0577	0.115		2
06139	Nickel	7440-02-0	20.6	0.115	0.462		2
06141	Selenium	7782-49-2	0.243 J	0.0462	0.462		2
06142	Silver	7440-22-4	0.0307 J	0.0139	0.115		2
06145	Thallium	7440-28-0	0.357	0.0346	0.115		2
06148	Vanadium	7440-62-2	45.1	0.0254	0.115		2
06149	Zinc	7440-66-6	79.6	0.647	3.46		2
	<b>SW-846 7471A</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
00159	Mercury	7439-97-6	0.0090 J	0.0032	0.110		1
<b>Wet Chemistry</b>							
	<b>EPA 300.0</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	3.9	0.94	1.2		1
	<b>EPA 314.0</b>		<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10147	7a Perchlorate EPA 314.0	14797-73-0	10.6 U	10.6	35.3		1
	<b>SW-846 7199</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
05892	3a Cr VI by EPA 7199	18540-29-9	0.44 J	0.24	1.2		1

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**Sample Description:** SL-070-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-070-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162921  
**LLI Group #** 1225037  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 13:34

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Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3419 SDG#: DE034-19\*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Wet Chemistry</b>		<b>ASTM D1498</b>	mV	mV	mV	mV	
01821	Oxidation Reduction Potential The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.	n.a.	421	10.0	10.0		1
		<b>SW-846 9045C modified</b>	<b>Std. Units</b>	<b>Std. Units</b>	<b>Std. Units</b>	<b>Std. Units</b>	
00394	22a pH by 9045C	n.a.	8.52	0.0100	0.0100		1
<b>Wet Chemistry</b>		<b>EPA 160.3 modified</b>	%	%	%	%	
11624	28a Moisture Content by 160.3 "Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.	n.a.	15.1	0.50	0.50		1

### General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10349SLJ026	01/10/2011 06:49	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10349SLG026	12/29/2010 19:22	Chad A Moline	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10349SLG026	12/16/2010 07:00	Joseph S Feister	1
00381	BNA Soil Sonication	SW-846 3550B	1	10349SLJ026	12/16/2010 07:00	Kerrie A Freeburn	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	103490015A	12/18/2010 13:37	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	103510029A	12/29/2010 18:23	Jamie L Brillhart	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	103500025A	12/21/2010 16:20	Lindsey K Lafferty	2
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	103510029A	12/20/2010 07:00	Joseph S Feister	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	103500025A	12/17/2010 00:40	Roman Kuropatkin	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	103490015A	12/16/2010 02:10	Roman Kuropatkin	1
01643	Aluminum	SW-846 6010B	1	103495708003	12/18/2010 00:40	John W Yanzuk II	1
07914	Boron	SW-846 6010B	1	103495708003	12/18/2010 00:40	John W Yanzuk II	1
01650	Calcium	SW-846 6010B	1	103495708003	12/20/2010 13:12	Joanne M Gates	5
01654	Iron	SW-846 6010B	1	103495708003	12/18/2010 00:40	John W Yanzuk II	1
01656	Lithium	SW-846 6010B	1	103495708003	12/18/2010 00:40	John W Yanzuk II	1
01657	Magnesium	SW-846 6010B	1	103495708003	12/18/2010 00:40	John W Yanzuk II	1

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**Sample Description:** SL-070-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-070-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162921  
**LLI Group #** 1225037  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 13:34

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
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Submitted: 12/10/2010 09:15

Reported: 01/21/2011 10:22

E3419 SDG#: DE034-19\*

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06958	Manganese	SW-846 6010B	1	103495708003	12/18/2010 00:40	John W Yanzuk II	1
10145	Phosphorus	SW-846 6010B	1	103495708003	12/18/2010 00:40	John W Yanzuk II	1
01662	Potassium	SW-846 6010B	1	103495708003	12/18/2010 00:40	John W Yanzuk II	1
01667	Sodium	SW-846 6010B	1	103495708003	12/18/2010 00:40	John W Yanzuk II	1
07968	Strontium	SW-846 6010B	1	103495708003	12/18/2010 00:40	John W Yanzuk II	1
06969	Tin	SW-846 6010B	1	103495708003	12/18/2010 00:40	John W Yanzuk II	1
06970	Titanium	SW-846 6010B	1	103545708005	12/21/2010 21:23	John P Hook	1
10146	Zirconium	SW-846 6010B	1	103495708003	12/18/2010 00:40	John W Yanzuk II	1
06124	Antimony	SW-846 6020	1	103491026003A	12/23/2010 15:58	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103491026003A	12/23/2010 15:58	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103491026003D	12/23/2010 15:58	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103491026003A	12/23/2010 15:58	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103491026003A	12/23/2010 15:58	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103491026003A	12/23/2010 15:58	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103491026003A	12/23/2010 15:58	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103491026003A	12/23/2010 15:58	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103491026003A	12/23/2010 15:58	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103491026003C	12/23/2010 15:58	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103491026003A	12/23/2010 15:58	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103491026003B	12/23/2010 15:58	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103491026003A	12/23/2010 15:58	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103491026003A	12/23/2010 15:58	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103491026003A	12/26/2010 07:13	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	103491026003A	12/23/2010 15:58	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	103495711003	12/20/2010 05:38	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	103495708003	12/16/2010 07:00	Denise K Connors	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	103545708005	12/20/2010 20:07	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103491026003	12/16/2010 07:35	Denise K Connors	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	103495711003	12/16/2010 08:55	Denise K Connors	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10362362201B	12/30/2010 05:46	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10357357201B	12/28/2010 05:52	Ashley M Adams	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	10359243202A	12/31/2010 12:34	Ashley M Adams	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10362362201B	12/28/2010 11:00	Erik J Frederiksen	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10357357201B	12/23/2010 19:30	Carolyn M Mastropietro	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10348182103A	12/14/2010 13:00	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10348039403A	12/14/2010 13:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10359243202A	12/25/2010 22:10	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	1	10349162401B	12/15/2010 09:13	William C Schwebel	1

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## Quality Control Summary

 Client Name: CDM Federal Programs Corp.  
 Reported: 01/21/11 at 10:22 AM

Group Number: 1225037

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

## Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: B103482AA	Sample number(s): 6162903-6162904								
Acetone	6.7 U	6.7	8.0	ug/kg	183		32-209		
Benzene	0.10 U	0.10	4.0	ug/kg	100		80-120		
Bromobenzene	0.13 U	0.13	4.0	ug/kg	91		79-120		
Bromochloromethane	0.33 U	0.33	4.0	ug/kg	97		79-124		
Bromodichloromethane	0.08 U	0.08	4.0	ug/kg	97		78-120		
Bromoform	0.40 U	0.40	4.0	ug/kg	95		70-120		
Bromomethane	0.25 U	0.25	4.0	ug/kg	72		32-162		
2-Butanone	1.2 U	1.2	8.0	ug/kg	133		46-153		
n-Butylbenzene	0.12 U	0.12	4.0	ug/kg	98		72-120		
sec-Butylbenzene	0.06 U	0.06	4.0	ug/kg	97		75-120		
tert-Butylbenzene	0.16 U	0.16	4.0	ug/kg	92		75-120		
Carbon Tetrachloride	0.14 U	0.14	4.0	ug/kg	101		69-122		
Chlorobenzene	0.11 U	0.11	4.0	ug/kg	97		80-120		
Chloroethane	0.13 U	0.13	4.0	ug/kg	77		37-154		
2-Chloroethyl Vinyl Ether	0.30 U	0.30	4.0	ug/kg	94		43-146		
Chloroform	0.22 J	0.12	4.0	ug/kg	102		80-120		
Chloromethane	0.33 U	0.33	4.0	ug/kg	72		54-132		
2-Chlorotoluene	0.14 U	0.14	4.0	ug/kg	94		78-120		
4-Chlorotoluene	0.14 U	0.14	4.0	ug/kg	96		79-120		
Chlorotrifluoroethene	0.50 U	0.50	5.0	ug/kg	101		22-131		
1,2-Dibromo-3-chloropropane	0.70 U	0.70	4.0	ug/kg	90		58-120		
Dibromochloromethane	0.20 U	0.20	4.0	ug/kg	97		77-120		
1,2-Dibromoethane	0.17 U	0.17	4.0	ug/kg	95		80-120		
Dibromomethane	0.24 U	0.24	4.0	ug/kg	99		80-120		
1,2-Dichlorobenzene	0.09 U	0.09	4.0	ug/kg	95		79-120		
1,3-Dichlorobenzene	0.12 U	0.12	4.0	ug/kg	92		78-120		
1,4-Dichlorobenzene	0.16 U	0.16	4.0	ug/kg	94		79-120		
Dichlorodifluoromethane	0.12 U	0.12	4.0	ug/kg	54		20-120		
1,1-Dichloroethane	0.10 U	0.10	4.0	ug/kg	99		80-120		
1,2-Dichloroethane	0.15 U	0.15	4.0	ug/kg	100		71-129		
1,1-Dichloroethene	0.39 U	0.39	4.0	ug/kg	99		73-123		
cis-1,2-Dichloroethene	0.19 U	0.19	4.0	ug/kg	99		80-120		
trans-1,2-Dichloroethene	0.12 U	0.12	4.0	ug/kg	98		79-120		
1,2-Dichloropropane	0.17 U	0.17	4.0	ug/kg	99		80-120		
1,3-Dichloropropane	0.08 U	0.08	4.0	ug/kg	96		80-120		
2,2-Dichloropropane	0.17 U	0.17	4.0	ug/kg	98		72-123		
1,1-Dichloropropene	0.13 U	0.13	4.0	ug/kg	98		77-120		
cis-1,3-Dichloropropene	0.16 U	0.16	4.0	ug/kg	91		80-120		
trans-1,3-Dichloropropene	0.17 U	0.17	4.0	ug/kg	90		77-120		
Ethylbenzene	0.06 U	0.06	4.0	ug/kg	98		80-120		
Freon 113	0.11 U	0.11	4.0	ug/kg	100		61-126		
Freon 133a	0.50 U	0.50	5.0	ug/kg	92		78-120		
Hexachlorobutadiene	0.14 U	0.14	4.0	ug/kg	92		57-120		
2-Hexanone	1.6 U	1.6	8.0	ug/kg	87		45-155		
Isopropylbenzene	0.06 U	0.06	4.0	ug/kg	99		76-120		
p-Isopropyltoluene	0.11 U	0.11	4.0	ug/kg	98		75-120		

\*- Outside of specification

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- (2) The unspiked result was more than four times the spike added.

## Quality Control Summary

 Client Name: CDM Federal Programs Corp.  
 Reported: 01/21/11 at 10:22 AM

Group Number: 1225037

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Methyl Tertiary Butyl Ether	0.21 U	0.21	4.0	ug/kg	94		74-121		
4-Methyl-2-pentanone	0.39 U	0.39	8.0	ug/kg	78		61-134		
Methylene Chloride	1.3 J	0.24	4.0	ug/kg	99		76-124		
n-Propylbenzene	0.07 U	0.07	4.0	ug/kg	100		77-120		
Styrene	0.10 U	0.10	4.0	ug/kg	97		76-120		
1,1,1,2-Tetrachloroethane	0.11 U	0.11	4.0	ug/kg	99		80-120		
1,1,2,2-Tetrachloroethane	0.23 U	0.23	4.0	ug/kg	95		71-123		
Tetrachloroethene	0.20 U	0.20	4.0	ug/kg	99		77-120		
Toluene	0.09 J	0.08	4.0	ug/kg	98		80-120		
1,2,3-Trichlorobenzene	0.14 U	0.14	4.0	ug/kg	92		64-120		
1,2,4-Trichlorobenzene	0.18 U	0.18	4.0	ug/kg	89		68-120		
1,1,1-Trichloroethane	0.20 U	0.20	4.0	ug/kg	100		71-125		
1,1,2-Trichloroethane	0.27 U	0.27	4.0	ug/kg	96		80-120		
Trichloroethene	0.15 U	0.15	4.0	ug/kg	97		80-120		
Trichlorofluoromethane	0.29 U	0.29	4.0	ug/kg	85		58-133		
1,2,3-Trichloropropane	0.33 U	0.33	4.0	ug/kg	93		71-123		
1,2,4-Trimethylbenzene	0.40 U	0.40	4.0	ug/kg	97		79-120		
1,3,5-Trimethylbenzene	0.10 U	0.10	4.0	ug/kg	96		78-120		
Vinyl Chloride	0.20 U	0.20	4.0	ug/kg	76		53-120		
m+p-Xylene	0.17 U	0.17	4.0	ug/kg	99		80-120		
o-Xylene	0.17 U	0.17	4.0	ug/kg	95		80-120		
Batch number: E103493AA Sample number(s): 6162903-6162904									
1,4-Dioxane	5.0 U	5.0	15	ug/kg	108	112	70-130	4	30
Batch number: 10349SLE026 Sample number(s): 6162903-6162904									
N-Nitrosodimethylamine	16.7 U	16.7	33.3	ng/kg	99		70-130		
Batch number: 10349SLG026 Sample number(s): 6162903-6162921									
Acenaphthene	0.67 U	0.67	1.7	ug/kg	94		63-120		
Acenaphthylene	0.33 U	0.33	1.7	ug/kg	101		60-120		
Anthracene	0.33 U	0.33	1.7	ug/kg	102		55-120		
Benzo(a)anthracene	0.67 U	0.67	1.7	ug/kg	103		74-120		
Benzo(a)pyrene	0.67 U	0.67	1.7	ug/kg	100		58-129		
Benzo(b)fluoranthene	0.67 U	0.67	1.7	ug/kg	113		63-143		
Benzo(g,h,i)perylene	0.67 U	0.67	1.7	ug/kg	97		44-138		
Benzo(k)fluoranthene	0.67 U	0.67	1.7	ug/kg	97		66-137		
Butylbenzylphthalate	6.0 U	6.0	18	ug/kg	116		65-131		
Di-n-butylphthalate	6.0 U	6.0	18	ug/kg	112		84-132		
Chrysene	0.33 U	0.33	1.7	ug/kg	102		79-120		
Dibenz(a,h)anthracene	0.67 U	0.67	1.7	ug/kg	99		62-142		
Diethylphthalate	6.0 U	6.0	18	ug/kg	119		68-125		
Dimethylphthalate	6.0 U	6.0	18	ug/kg	108		70-130		
Bis(2-Ethylhexyl)phthalate	6.0 U	6.0	18	ug/kg	130		67-143		
Fluoranthene	0.67 U	0.67	1.7	ug/kg	106		78-120		
Fluorene	0.67 U	0.67	1.7	ug/kg	103		71-120		
Indeno(1,2,3-cd)pyrene	0.67 U	0.67	1.7	ug/kg	98		62-141		
1-Methylnaphthalene	0.67 U	0.67	1.7	ug/kg	100		72-120		
2-Methylnaphthalene	0.67 U	0.67	1.7	ug/kg	89		62-120		
Naphthalene	0.67 U	0.67	1.7	ug/kg	93		67-120		
N-Nitrosodimethylamine	0.67 U	0.67	1.7	ug/kg	105		39-148		
Di-n-octylphthalate	6.0 U	6.0	18	ug/kg	110		55-176		
Phenanthrene	0.67 U	0.67	1.7	ug/kg	99		75-120		
Pyrene	0.67 U	0.67	1.7	ug/kg	103		56-121		
Batch number: 10349SLJ026 Sample number(s): 6162903-6162921									
Aniline	170 U	170.	500	ug/kg	70		10-107		

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## Quality Control Summary

 Client Name: CDM Federal Programs Corp.  
 Reported: 01/21/11 at 10:22 AM

Group Number: 1225037

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Benzenidine	1,200 U	1,200.	3,300	ug/kg	48		15-121		
Benzo(a)anthracene	17	U 17.	170	ug/kg	94		73-112		
Benzo(a)pyrene	17	U 17.	170	ug/kg	86		69-122		
Benzo(b)fluoranthene	17	U 17.	170	ug/kg	88		61-127		
Benzo(g,h,i)perylene	17	U 17.	170	ug/kg	79		65-122		
Benzo(k)fluoranthene	17	U 17.	170	ug/kg	90		67-125		
Benzoic acid	170 U	170.	500	ug/kg	101		10-154		
Benzyl alcohol	170 U	170.	500	ug/kg	107		68-111		
4-Bromophenyl-phenylether	17	U 17.	170	ug/kg	91		79-117		
Di-n-butylphthalate	17	U 17.	170	ug/kg	96		79-112		
Carbazole	17	U 17.	170	ug/kg	95		77-113		
4-Chloro-3-methylphenol	33	U 33.	170	ug/kg	100		74-119		
4-Chloroaniline	67	U 67.	170	ug/kg	36		10-110		
bis(2-Chloroethoxy)methane	17	U 17.	170	ug/kg	96		70-118		
bis(2-Chloroethyl)ether	17	U 17.	170	ug/kg	98		70-104		
bis(2-Chloroisopropyl)ether	17	U 17.	170	ug/kg	103		68-131		
2-Chloronaphthalene	17	U 17.	170	ug/kg	91		67-127		
2-Chlorophenol	17	U 17.	170	ug/kg	106		72-112		
4-Chlorophenyl-phenylether	33	U 33.	170	ug/kg	95		79-110		
Chrysene	17	U 17.	170	ug/kg	97		76-113		
Dibenz(a,h)anthracene	17	U 17.	170	ug/kg	80		70-128		
Dibenzofuran	17	U 17.	170	ug/kg	97		79-108		
1,2-Dichlorobenzene	17	U 17.	170	ug/kg	91		79-102		
1,3-Dichlorobenzene	17	U 17.	170	ug/kg	88		70-98		
1,4-Dichlorobenzene	17	U 17.	170	ug/kg	90		74-106		
3,3'-Dichlorobenzidine	100 U	100.	330	ug/kg	39		38-105		
2,4-Dichlorophenol	17	U 17.	170	ug/kg	104		75-111		
2,4-Dimethylphenol	33	U 33.	170	ug/kg	102		72-111		
3,5-Dimethylphenol	33	U 33.	170	ug/kg	101		70-130		
4,6-Dinitro-2-methylphenol	170 U	170.	500	ug/kg	84		53-110		
2,4-Dinitrophenol	670 U	670.	2,000	ug/kg	75		37-120		
2,4-Dinitrotoluene	33	U 33.	170	ug/kg	97		73-115		
2,6-Dinitrotoluene	17	U 17.	170	ug/kg	97		79-115		
1,2-Diphenylhydrazine	17	U 17.	170	ug/kg	103		77-111		
Fluoranthene	17	U 17.	170	ug/kg	94		78-116		
Hexachlorobenzene	17	U 17.	170	ug/kg	93		78-116		
Hexachlorobutadiene	67	U 67.	170	ug/kg	83		70-112		
Hexachlorocyclopentadiene	170 U	170.	500	ug/kg	79		46-115		
Hexachloroethane	17	U 17.	170	ug/kg	87		68-105		
Indeno(1,2,3-cd)pyrene	17	U 17.	170	ug/kg	80		64-119		
Isophorone	17	U 17.	170	ug/kg	99		69-110		
2-Methylphenol	33	U 33.	170	ug/kg	110		66-110		
4-Methylphenol	33	U 33.	170	ug/kg	108		66-117		
2-Nitroaniline	17	U 17.	170	ug/kg	97		78-116		
3-Nitroaniline	33	U 33.	170	ug/kg	90		62-109		
4-Nitroaniline	67	U 67.	170	ug/kg	71		49-98		
Nitrobenzene	17	U 17.	170	ug/kg	93		71-104		
2-Nitrophenol	17	U 17.	170	ug/kg	93		81-114		
4-Nitrophenol	170 U	170.	500	ug/kg	90		56-118		
N-Nitroso-di-n-propylamine	17	U 17.	170	ug/kg	103		63-107		

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## Quality Control Summary

 Client Name: CDM Federal Programs Corp.  
 Reported: 01/21/11 at 10:22 AM

Group Number: 1225037

<u>Analysis Name</u>	<u>Blank Result</u>		<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
N-Nitrosodiphenylamine	17	U	17.	170	ug/kg	97		67-141		
Pentachlorophenol	170		170.	500	ug/kg	69		35-106		
	U									
Phenanthrene	17	U	17.	170	ug/kg	95		77-113		
Phenol	17	U	17.	170	ug/kg	101		58-112		
Pyrene	17	U	17.	170	ug/kg	103		75-115		
1,2,4-Trichlorobenzene	17	U	17.	170	ug/kg	88		73-108		
2,4,5-Trichlorophenol	33	U	33.	170	ug/kg	92		76-107		
2,4,6-Trichlorophenol	33	U	33.	170	ug/kg	95		78-111		
Batch number: 10348A34A	Sample number(s): 6162903-6162904									
9a TPH by EPA 8015B Gas C5-C12	0.2	U	0.2	1.0	mg/kg	75	69	67-119	8	30
Batch number: 103480012A	Sample number(s): 6162903-6162904									
4-Amino-2,6-Dinitrotoluene	75	U	75.	150	ug/kg	108		80-120		
2-Amino-4,6-Dinitrotoluene	50	U	50.	150	ug/kg	107		80-120		
2,6-Diamino-4-nitrotoluene	100		100.	300	ug/kg	95	96	54-134	1	30
	U									
2,4-Diamino-6-nitrotoluene	100		100.	300	ug/kg	95	96	54-134	1	30
	U									
1,3-Dinitrobenzene	50	U	50.	150	ug/kg	106		51-171		
2,4-Dinitrotoluene	50	U	50.	150	ug/kg	103		72-135		
2,6-Dinitrotoluene	50	U	50.	150	ug/kg	110		80-120		
HMX	130		130.	380	ug/kg	93		74-130		
	U									
Nitrobenzene	50	U	50.	150	ug/kg	105		80-120		
Nitroglycerin	1,000		1,000.	3,000	ug/kg	94		80-120		
	U									
2-Nitrotoluene	100		100.	150	ug/kg	107		78-128		
	U									
3-Nitrotoluene	130		130.	150	ug/kg	108		73-127		
	U									
4-Nitrotoluene	100		100.	150	ug/kg	107		80-120		
	U									
PETN	1,000		1,000.	3,000	ug/kg	105		80-120		
	U									
RDX	63	U	63.	150	ug/kg	105		75-131		
Tetryl	77	U	77.	150	ug/kg	115		70-168		
1,3,5-Trinitrobenzene	50	U	50.	150	ug/kg	115		77-137		
2,4,6-Trinitrotoluene	50	U	50.	150	ug/kg	109		80-120		
Batch number: 103480007A	Sample number(s): 6162903-6162904									
17a Formaldehyde by 8315A	600		600.	1,500	ug/kg	99		80-126		
	U									
Batch number: 103490015A	Sample number(s): 6162905-6162921									
2,4-D	1.2	U	1.2	3.6	ug/kg	109		40-140		
Dalapon	4.4	U	4.4	9.0	ug/kg	69		24-89		
2,4-DB	0.62	U	0.62	1.7	ug/kg	99		34-138		
Dicamba	0.40	U	0.40	1.2	ug/kg	99		20-164		
Dinoseb	0.80	U	0.80	2.4	ug/kg	6*		10-36		
2,4-DP (Dichlorprop)	0.80	U	0.80	1.7	ug/kg	144*		60-141		
MCPA	76	U	76.	250	ug/kg	97		34-113		
MCPP (Mecoprop)	75	U	75.	250	ug/kg	101		29-154		
2,4,5-T	0.082	U	0.082	0.17	ug/kg	95		33-145		
2,4,5-TP	0.075	U	0.075	0.17	ug/kg	88		48-138		
Batch number: 103500011A	Sample number(s): 6162905-6162919									

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## Quality Control Summary

 Client Name: CDM Federal Programs Corp.  
 Reported: 01/21/11 at 10:22 AM

Group Number: 1225037

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Aldrin	0.066 U	0.066	0.17	ug/kg	94		44-135		
Alpha BHC	0.034 U	0.034	0.17	ug/kg	112		38-130		
Beta BHC	0.060 U	0.060	0.17	ug/kg	94		56-134		
Gamma BHC - Lindane	0.034 U	0.034	0.17	ug/kg	118		46-127		
Chlordane	0.80 U	0.80	3.4	ug/kg					
p,p-DDD	0.066 U	0.066	0.34	ug/kg	131		60-137		
p,p-DDE	0.066 U	0.066	0.34	ug/kg	100		59-141		
p,p-DDT	0.066 U	0.066	0.34	ug/kg	134*		54-130		
Delta BHC	0.036 U	0.036	0.17	ug/kg	97		55-144		
Dieldrin	0.066 U	0.066	0.34	ug/kg	99		65-129		
Endosulfan I	0.044 U	0.044	0.17	ug/kg	112		45-123		
Endosulfan II	0.066 U	0.066	0.34	ug/kg	95		63-127		
Endosulfan Sulfate	0.066 U	0.066	0.34	ug/kg	113		72-138		
Endrin	0.066 U	0.066	0.34	ug/kg	121		62-129		
Endrin Aldehyde	0.066 U	0.066	0.34	ug/kg	98		55-132		
Endrin Ketone	0.066 U	0.066	0.34	ug/kg	116		69-139		
Heptachlor	0.060 U	0.060	0.17	ug/kg	106		43-124		
Heptachlor Epoxide	0.034 U	0.034	0.17	ug/kg	103		65-131		
Methoxychlor	0.34 U	0.34	1.7	ug/kg	141*		59-125		
Mirex	0.066 U	0.066	0.34	ug/kg					
Toxaphene	2.2 U	2.2	6.6	ug/kg					

Batch number: 103500025A

Sample number(s): 6162903-6162921

Aroclor 5432	1.0 U	1.0	3.3	ug/kg					
Aroclor 5442	1.0 U	1.0	3.3	ug/kg	62*	65*	75-125	5	30
Aroclor 5460	1.0 U	1.0	3.3	ug/kg					
PCB-1016	0.33 U	0.33	1.7	ug/kg	85		72-120		
PCB-1221	0.50 U	0.50	1.7	ug/kg					
PCB-1232	0.52 U	0.52	1.7	ug/kg					
PCB-1242	0.50 U	0.50	1.7	ug/kg					
PCB-1248	0.33 U	0.33	1.7	ug/kg					
PCB-1254	0.33 U	0.33	1.7	ug/kg					
PCB-1260	0.33 U	0.33	1.7	ug/kg	99		65-137		
PCB-1262	0.33 U	0.33	1.7	ug/kg					
PCB-1268	0.33 U	0.33	1.7	ug/kg					

Batch number: 103510029A

Sample number(s): 6162920-6162921

Aldrin	0.066 U	0.066	0.17	ug/kg	87		44-135		
Alpha BHC	0.034 U	0.034	0.17	ug/kg	103		38-130		
Beta BHC	0.060 U	0.060	0.17	ug/kg	88		56-134		
Gamma BHC - Lindane	0.034 U	0.034	0.17	ug/kg	106		46-127		
Chlordane	0.80 U	0.80	3.4	ug/kg					
p,p-DDD	0.066 U	0.066	0.34	ug/kg	104		60-137		
p,p-DDE	0.066 U	0.066	0.34	ug/kg	105		59-141		
p,p-DDT	0.066 U	0.066	0.34	ug/kg	126		54-130		
Delta BHC	0.036 U	0.036	0.17	ug/kg	94		55-144		
Dieldrin	0.066 U	0.066	0.34	ug/kg	101		65-129		
Endosulfan I	0.044 U	0.044	0.17	ug/kg	97		45-123		
Endosulfan II	0.066 U	0.066	0.34	ug/kg	100		63-127		
Endosulfan Sulfate	0.066 U	0.066	0.34	ug/kg	111		72-138		
Endrin	0.066 U	0.066	0.34	ug/kg	118		62-129		
Endrin Aldehyde	0.066 U	0.066	0.34	ug/kg	95		55-132		
Endrin Ketone	0.066 U	0.066	0.34	ug/kg	113		69-139		
Heptachlor	0.060 U	0.060	0.17	ug/kg	121		43-124		
Heptachlor Epoxide	0.034 U	0.034	0.17	ug/kg	103		65-131		
Methoxychlor	0.34 U	0.34	1.7	ug/kg	131*		59-125		
Mirex	0.066 U	0.066	0.34	ug/kg					
Toxaphene	2.2 U	2.2	6.6	ug/kg					

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## Quality Control Summary

 Client Name: CDM Federal Programs Corp.  
 Reported: 01/21/11 at 10:22 AM

Group Number: 1225037

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 103470024A	Sample number(s): 6162903-6162904								
EFH (C12-C14)	0.40 U	0.40	1.2	mg/kg	88		66-113		
EFH (C15-C20)	0.40 U	0.40	1.2	mg/kg	90		66-113		
EFH (C21-C30)	0.40 U	0.40	1.2	mg/kg	92		66-113		
EFH (C30 - C40)	0.40 U	0.40	1.2	mg/kg	92		66-113		
EFH (C8-C11)	0.40 U	0.40	1.2	mg/kg	89		66-113		
Batch number: 103480003A	Sample number(s): 6162903-6162904								
Ethanol	100 U	100.	500	ug/kg	86		75-112		
Isopropanol	100 U	100.	500	ug/kg	88		75-125		
Methanol	100 U	100.	500	ug/kg	87		75-134		
Batch number: 103480019A	Sample number(s): 6162903-6162904								
Diethylene glycol	5.0 U	5.0	13	mg/kg	92		75-125		
Ethylene glycol	5.0 U	5.0	13	mg/kg	85		75-125		
Propylene glycol	5.0 U	5.0	13	mg/kg	93		75-125		
Batch number: 103550026A	Sample number(s): 6162903-6162904								
m-Terphenyl	1.5 U	1.5	3.5	mg/kg	99		75-125		
o-Terphenyl	1.5 U	1.5	3.5	mg/kg	102		75-125		
p-Terphenyl	1.5 U	1.5	3.5	mg/kg	98		75-125		
Batch number: 103491026003A	Sample number(s): 6162903-6162921								
Antimony	0.0588 U	0.0588	0.196	mg/kg	50		11-208		
Arsenic	0.0588 U	0.0588	0.392	mg/kg	91		80-120		
Beryllium	0.0157 U	0.0157	0.0980	mg/kg	95		82-118		
Cadmium	0.0353 U	0.0353	0.0980	mg/kg	91		82-118		
Chromium	0.118 U	0.118	0.392	mg/kg	85		80-120		
Cobalt	0.0196 U	0.0196	0.0980	mg/kg	91		82-118		
Copper	0.0647 U	0.0647	0.392	mg/kg	91		80-120		
Lead	0.0102 U	0.0102	0.196	mg/kg	99		80-120		
Nickel	0.0980 U	0.0980	0.392	mg/kg	97		80-120		
Silver	0.0118 U	0.0118	0.0980	mg/kg	93		66-134		
Thallium	0.0294 U	0.0294	0.0980	mg/kg	95		81-119		
Vanadium	0.0216 U	0.0216	0.0980	mg/kg	94		90-110		
Zinc	0.549 U	0.549	2.94	mg/kg	91		78-122		
Batch number: 103491026003B	Sample number(s): 6162903-6162921								
Selenium	0.0392 U	0.0392	0.392	mg/kg	91		79-122		
Batch number: 103491026003C	Sample number(s): 6162903-6162921								
Molybdenum	0.0490 U	0.0490	0.0980	mg/kg	90		78-122		
Batch number: 103491026003D	Sample number(s): 6162903-6162921								
Barium	0.106 U	0.106	0.392	mg/kg	96		79-121		
Batch number: 103495708003	Sample number(s): 6162903-6162921								
Aluminum	4.98 U	4.98	19.8	mg/kg	84		61-110		
Boron	0.881 U	0.881	4.95	mg/kg	88		78-110		
Calcium	6.07 U	6.07	19.8	mg/kg	98		88-110		
Iron	4.66 U	4.66	19.8	mg/kg	85		61-110		
Lithium	0.22 U	0.22	2.0	mg/kg	101		80-120		
Magnesium	2.51 U	2.51	9.90	mg/kg	92		82-110		
Manganese	0.0772 U	0.0772	0.495	mg/kg	97		81-119		

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## Quality Control Summary

 Client Name: CDM Federal Programs Corp.  
 Reported: 01/21/11 at 10:22 AM

Group Number: 1225037

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Phosphorus	1.90 J	0.554	9.90	mg/kg	101		80-120		
Potassium	17.8 U	17.8	49.5	mg/kg	91		78-110		
Sodium	36.9 U	36.9	99.0	mg/kg	93		87-110		
Strontium	0.0614 U	0.0614	0.495	mg/kg	102		79-121		
Tin	1.82 J	0.990	9.90	mg/kg	98		90-114		
Zirconium	0.832 U	0.832	4.95	mg/kg	101		80-120		
Batch number: 103495711003	Sample number(s): 6162903-6162921								
Mercury	0.0028 U	0.0028	0.0979	mg/kg	101		88-123		
Batch number: 103545708005	Sample number(s): 6162903-6162921								
Titanium	0.380 U	0.380	1.00	mg/kg	110		80-120		
Batch number: 10356356201A	Sample number(s): 6162903-6162905								
7a Perchlorate EPA 314.0	14.6 J	9.0	30.0	ug/kg	97		85-115		
Batch number: 10357102201A	Sample number(s): 6162903-6162904								
21a Cyanide by 9012B	0.18 U	0.18	0.50	mg/kg	101		80-120		
Batch number: 10357357201A	Sample number(s): 6162906-6162915								
7a Perchlorate EPA 314.0	9.0 U	9.0	30.0	ug/kg	107		85-115		
Batch number: 10357357201B	Sample number(s): 6162916-6162921								
7a Perchlorate EPA 314.0	9.0 U	9.0	30.0	ug/kg	107		85-115		
Batch number: 10359243202A	Sample number(s): 6162903-6162921								
3a Cr VI by EPA 7199	0.20 U	0.20	1.0	mg/kg	96		80-120		
Batch number: 10361361201A	Sample number(s): 6162903-6162910								
11a Anions by 300.0 - Fluoride	0.80 U	0.80	1.0	mg/kg	105		90-110		
11a Anions by 300.0 - Nitrate	0.80 U	0.80	1.5	mg/kg	103		90-110		
Batch number: 10362362201B	Sample number(s): 6162921								
11a Anions by 300.0 - Fluoride	0.80 U	0.80	1.0	mg/kg	107		90-110		
Batch number: 10362362202A	Sample number(s): 6162911-6162920								
11a Anions by 300.0 - Fluoride	0.80 U	0.80	1.0	mg/kg	103		90-110		
Batch number: 10348039402A	Sample number(s): 6162903-6162905								
22a pH by 9045C					100		95-105		
Batch number: 10348039402B	Sample number(s): 6162906-6162916								
22a pH by 9045C					100		95-105		
Batch number: 10348039403A	Sample number(s): 6162917-6162921								
22a pH by 9045C					100		95-105		
Batch number: 10348182102A	Sample number(s): 6162903-6162905								
Oxidation Reduction Potential					99		98-102		
Batch number: 10348182102B	Sample number(s): 6162906-6162916								
Oxidation Reduction Potential					99		98-102		
Batch number: 10348182103A	Sample number(s): 6162917-6162921								
Oxidation Reduction Potential					99		98-102		
Batch number: 10349162401A	Sample number(s): 6162905-6162914								
28a Moisture Content by 160.3					100		80-120		

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## Quality Control Summary

 Client Name: CDM Federal Programs Corp.  
 Reported: 01/21/11 at 10:22 AM

Group Number: 1225037

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 10349162401B 28a Moisture Content by 160.3	Sample number(s): 6162915-6162921				100		80-120		
Batch number: 10357162401A 28a Moisture Content by 160.3	Sample number(s): 6162903-6162904				99		80-120		

## Sample Matrix Quality Control

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 Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: B103482AA	Sample number(s): 6162903-6162904 UNSPK: P163871								
Acetone	169	181	15-210	3	30				
Benzene	99	95	55-143	8	30				
Bromobenzene	87	77	43-139	16	30				
Bromochloromethane	97	91	60-137	10	30				
Bromodichloromethane	96	90	53-136	10	30				
Bromoform	85	81	38-124	9	30				
Bromomethane	72	64	42-168	16	30				
2-Butanone	114	120	37-163	1	30				
n-Butylbenzene	82	67	30-146	24	30				
sec-Butylbenzene	87	73	33-157	21	30				
tert-Butylbenzene	88	74	41-152	20	30				
Carbon Tetrachloride	102	96	45-153	10	30				
Chlorobenzene	92	83	49-135	15	30				
Chloroethane	78	68	39-152	18	30				
2-Chloroethyl Vinyl Ether	84	89	32-139	2	30				
Chloroform	103	96	61-142	10	30				
Chloromethane	77	72	51-163	10	30				
2-Chlorotoluene	89	77	42-146	18	30				
4-Chlorotoluene	88	75	39-145	19	30				
Chlorotrifluoroethene	104	104	70-130	2	30				
1,2-Dibromo-3-chloropropane	79	77	30-139	7	30				
Dibromochloromethane	93	88	51-128	10	30				
1,2-Dibromoethane	88	86	54-129	6	30				
Dibromomethane	94	90	57-130	8	30				
1,2-Dichlorobenzene	83	71	36-133	19	30				
1,3-Dichlorobenzene	81	69	34-134	19	30				
1,4-Dichlorobenzene	82	70	35-136	19	30				
Dichlorodifluoromethane	53	50	26-151	11	30				
1,1-Dichloroethane	101	96	63-142	9	30				
1,2-Dichloroethane	98	94	68-131	8	30				
1,1-Dichloroethene	101	97	61-149	7	30				
cis-1,2-Dichloroethene	98	93	60-136	9	30				
trans-1,2-Dichloroethene	99	92	59-142	11	30				
1,2-Dichloropropane	98	93	62-135	9	30				
1,3-Dichloropropane	94	90	58-129	8	30				
2,2-Dichloropropane	96	92	53-147	8	30				
1,1-Dichloropropene	97	93	54-145	8	30				
cis-1,3-Dichloropropene	85	83	51-131	6	30				
trans-1,3-Dichloropropene	87	83	49-129	8	30				

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## Quality Control Summary

 Client Name: CDM Federal Programs Corp.  
 Reported: 01/21/11 at 10:22 AM

Group Number: 1225037

### Sample Matrix Quality Control

 Unspiked (UNSPK) = the sample used in conjunction with the matrix spike  
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<u>Analysis Name</u>	<u>MS</u> <u>%REC</u>	<u>MSD</u> <u>%REC</u>	<u>MS/MSD</u> <u>Limits</u>	<u>RPD</u> <u>RPD</u>	<u>RPD</u> <u>MAX</u>	<u>BKG</u> <u>Conc</u>	<u>DUP</u> <u>Conc</u>	<u>DUP</u> <u>RPD</u>	<u>Dup RPD</u> <u>Max</u>
Ethylbenzene	92	83	44-141	15	30				
Freon 113	102	95	56-156	11	30				
Freon 133a	90	94	70-130	6	30				
Hexachlorobutadiene	65	51	10-155	28	30				
2-Hexanone	76	80	32-160	0	30				
Isopropylbenzene	89	78	38-144	17	30				
p-Isopropyltoluene	85	71	29-152	21	30				
Methyl Tertiary Butyl Ether	88	87	55-129	4	30				
4-Methyl-2-pentanone	66	70	46-139	3	30				
Methylene Chloride	99	87	61-141	16	30				
n-Propylbenzene	92	80	39-157	17	30				
Styrene	89	79	35-134	16	30				
1,1,1,2-Tetrachloroethane	97	87	52-130	15	30				
1,1,2,2-Tetrachloroethane	90	87	40-152	7	30				
Tetrachloroethene	94	84	42-149	14	30				
Toluene	97	90	50-146	11	30				
1,2,3-Trichlorobenzene	60	50	10-140	21	30				
1,2,4-Trichlorobenzene	61	50	10-136	24	30				
1,1,1-Trichloroethane	101	95	64-142	9	30				
1,1,2-Trichloroethane	93	89	54-139	9	30				
Trichloroethene	95	90	53-144	9	30				
Trichlorofluoromethane	88	81	47-163	12	30				
1,2,3-Trichloropropane	90	88	45-154	5	30				
1,2,4-Trimethylbenzene	89	76	37-149	19	30				
1,3,5-Trimethylbenzene	89	77	38-150	18	30				
Vinyl Chloride	78	74	50-154	9	30				
m+p-Xylene	93	82	44-137	16	30				
o-Xylene	88	78	42-137	16	30				
Batch number: E103493AA			Sample number(s): 6162903-6162904	UNSPK: P163871					
1,4-Dioxane	104	95	70-130	9	30				
Batch number: 10349SLE026			Sample number(s): 6162903-6162904	UNSPK: P162828					
N-Nitrosodimethylamine	94	87	70-130	7	30				
Batch number: 10349SLG026			Sample number(s): 6162903-6162921	UNSPK: 6162903					
Acenaphthene	72	95	63-105	27	30				
Acenaphthylene	76	101	55-126	28	30				
Anthracene	80	104	46-136	26	30				
Benzo(a)anthracene	79	104	39-144	27	30				
Benzo(a)pyrene	80	102	34-156	23	30				
Benzo(b)fluoranthene	105	141	43-155	29	30				
Benzo(g,h,i)perylene	32*	39	33-141	20	30				
Benzo(k)fluoranthene	97	119	42-144	21	30				
Butylbenzylphthalate	84	129	73-140	42*	30				
Di-n-butylphthalate	88	113	78-160	25	30				
Chrysene	77	98	29-156	24	30				
Dibenz(a,h)anthracene	45	55	41-130	19	30				
Diethylphthalate	91	119	87-131	27	30				
Dimethylphthalate	83	109	74-118	27	30				
Bis(2-Ethylhexyl)phthalate	85	92	39-167	6	30				
Fluoranthene	83	110	26-166	28	30				
Fluorene	78	101	45-121	26	30				

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## Quality Control Summary

 Client Name: CDM Federal Programs Corp.  
 Reported: 01/21/11 at 10:22 AM

Group Number: 1225037

### Sample Matrix Quality Control

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<u>Analysis Name</u>	<u>MS</u> <u>%REC</u>	<u>MSD</u> <u>%REC</u>	<u>MS/MSD</u> <u>Limits</u>	<u>RPD</u> <u>RPD</u>	<u>RPD</u> <u>MAX</u>	<u>BKG</u> <u>Conc</u>	<u>DUP</u> <u>Conc</u>	<u>DUP</u> <u>RPD</u>	<u>Dup RPD</u> <u>Max</u>
Indeno(1,2,3-cd)pyrene	41	51	21-143	22	30				
1-Methylnaphthalene	75	100	72-123	28	30				
2-Methylnaphthalene	68	90	28-121	27	30				
Naphthalene	72	94	61-102	26	30				
N-Nitrosodimethylamine	83	113	48-113	31*	30				
Di-n-octylphthalate	134	185	40-192	27	30				
Phenanthrene	75	98	12-165	26	30				
Pyrene	86	110	15-153	24	30				

Batch number: 10349SLJ026

Sample number(s): 6162903-6162921 UNSPK: 6162903

Aniline	57	54	14-114	6	30				
Benzidine	0*	0*	35-141	0	30				
Benzo(a)anthracene	93	95	65-122	3	30				
Benzo(a)pyrene	86	86	57-126	1	30				
Benzo(b)fluoranthene	85	86	59-125	2	30				
Benzo(g,h,i)perylene	83	84	59-127	2	30				
Benzo(k)fluoranthene	87	88	56-132	1	30				
Benzoic acid	40	34	10-173	15	30				
Benzyl alcohol	104	102	55-123	2	30				
4-Bromophenyl-phenylether	96	97	67-129	2	30				
Di-n-butylphthalate	97	97	67-123	0	30				
Carbazole	89	90	64-120	1	30				
4-Chloro-3-methylphenol	97	97	53-130	0	30				
4-Chloroaniline	56	65	23-95	14	30				
bis(2-Chloroethoxy)methane	94	97	54-117	3	30				
bis(2-Chloroethyl)ether	97	96	60-116	0	30				
bis(2-Chloroisopropyl)ether	96	97	55-142	2	30				
2-Chloronaphthalene	92	82	50-141	11	30				
2-Chlorophenol	104	103	73-121	1	30				
4-Chlorophenyl-phenylether	96	96	64-119	1	30				
Chrysene	95	97	62-128	2	30				
Dibenz(a,h)anthracene	84	85	65-125	1	30				
Dibenzofuran	96	97	71-112	1	30				
1,2-Dichlorobenzene	90	93	66-108	3	30				
1,3-Dichlorobenzene	88	90	63-109	2	30				
1,4-Dichlorobenzene	89	92	53-113	3	30				
3,3'-Dichlorobenzidine	73	72	25-123	0	30				
2,4-Dichlorophenol	104	106	78-117	1	30				
2,4-Dimethylphenol	101	100	56-130	1	30				
3,5-Dimethylphenol	93	94	70-130	1	30				
4,6-Dinitro-2-methylphenol	62	50	10-148	22	30				
2,4-Dinitrophenol	37	24	20-143	44*	30				
2,4-Dinitrotoluene	95	96	57-114	1	30				
2,6-Dinitrotoluene	96	96	69-123	1	30				
1,2-Diphenylhydrazine	102	105	71-129	2	30				
Fluoranthene	88	89	59-122	1	30				
Hexachlorobenzene	97	99	61-111	3	30				
Hexachlorobutadiene	88	91	62-120	4	30				
Hexachlorocyclopentadiene	43	47	10-153	9	30				
Hexachloroethane	87	89	57-109	3	30				
Indeno(1,2,3-cd)pyrene	84	85	61-126	2	30				
Isophorone	96	96	51-118	0	30				
2-Methylphenol	105	104	47-142	1	30				

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## Quality Control Summary

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 Reported: 01/21/11 at 10:22 AM

Group Number: 1225037

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<u>Analysis Name</u>	<u>MS</u> <u>%REC</u>	<u>MSD</u> <u>%REC</u>	<u>MS/MSD</u> <u>Limits</u>	<u>RPD</u> <u>RPD</u>	<u>BKG</u> <u>Conc</u>	<u>DUP</u> <u>Conc</u>	<u>DUP</u> <u>RPD</u>	<u>Dup RPD</u> <u>Max</u>
4-Methylphenol	100	99	55-126	1	30			
2-Nitroaniline	96	95	67-125	1	30			
3-Nitroaniline	89	89	59-122	0	30			
4-Nitroaniline	68	69	52-112	2	30			
Nitrobenzene	95	96	51-114	2	30			
2-Nitrophenol	93	93	74-115	0	30			
4-Nitrophenol	77	75	39-133	2	30			
N-Nitroso-di-n-propylamine	97	96	60-116	1	30			
N-Nitrosodiphenylamine	97	100	86-145	2	30			
Pentachlorophenol	52	52	17-149	0	30			
Phenanthrene	95	96	65-125	1	30			
Phenol	97	97	58-126	0	30			
Pyrene	108	110	51-151	2	30			
1,2,4-Trichlorobenzene	92	95	72-115	3	30			
2,4,5-Trichlorophenol	92	90	34-139	2	30			
2,4,6-Trichlorophenol	93	94	49-140	1	30			
Batch number: 103480012A Sample number(s): 6162903-6162904 UNSPK: P162818								
4-Amino-2,6-Dinitrotoluene	104	96	80-127	8	50			
2-Amino-4,6-Dinitrotoluene	103	95	80-137	7	50			
1,3-Dinitrobenzene	103	97	38-166	6	50			
2,4-Dinitrotoluene	100	94	80-131	6	50			
2,6-Dinitrotoluene	105	99	80-127	6	50			
HMX	92	81	63-128	12	50			
Nitrobenzene	103	98	80-125	5	50			
Nitroglycerin	92	86	80-120	7	50			
2-Nitrotoluene	106	100	80-122	6	50			
3-Nitrotoluene	106	100	72-119	6	50			
4-Nitrotoluene	105	99	80-125	6	50			
PETN	103	94	80-121	9	50			
RDX	95	84	75-129	13	50			
Tetryl	106	90	55-174	16	50			
1,3,5-Trinitrobenzene	110	102	82-126	8	50			
2,4,6-Trinitrotoluene	103	96	82-130	7	50			
Batch number: 103480007A Sample number(s): 6162903-6162904 UNSPK: P162812								
17a Formaldehyde by 8315A	29*	26*	80-120	3	50			
Batch number: 103490015A Sample number(s): 6162905-6162921 UNSPK: 6162905								
2,4-D	106	101	28-161	5	35			
Dalapon	73	65	12-86	11	50			
2,4-DB	0*	41	20-170	200*	50			
Dicamba	106	98	33-120	8	50			
Dinoseb	0*	0*	1-44	0	35			
2,4-DP (Dichlorprop)	115	110	55-141	4	50			
MCPA	113	110	31-184	2	50			
MCPP (Mecoprop)	0*	0*	16-174	0	50			
2,4,5-T	95	82	25-132	15	35			
2,4,5-TP	0*	0*	10-183	0	35			
Batch number: 103500011A Sample number(s): 6162905-6162919 UNSPK: P162864								
Aldrin	74	71	16-126	4	50			
Alpha BHC	106	94	10-129	12	50			

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## Quality Control Summary

 Client Name: CDM Federal Programs Corp.  
 Reported: 01/21/11 at 10:22 AM

Group Number: 1225037

### Sample Matrix Quality Control

 Unspiked (UNSPK) = the sample used in conjunction with the matrix spike  
 Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS</u> <u>%REC</u>	<u>MSD</u> <u>%REC</u>	<u>MS/MSD</u> <u>Limits</u>	<u>RPD</u> <u>RPD</u>	<u>RPD</u> <u>MAX</u>	<u>BKG</u> <u>Conc</u>	<u>DUP</u> <u>Conc</u>	<u>DUP</u> <u>RPD</u>	<u>Dup RPD</u> <u>Max</u>
Beta BHC	88	84	14-147	4	50				
Gamma BHC - Lindane	100	94	10-140	6	50				
p,p-DDD	91	90	16-163	2	50				
p,p-DDE	82	79	18-161	4	50				
p,p-DDT	110	106	10-176	4	50				
Delta BHC	88	81	23-140	7	50				
Dieldrin	73	69	19-154	5	50				
Endosulfan I	79	79	16-137	0	50				
Endosulfan II	73	73	28-154	0	50				
Endosulfan Sulfate	113	98	21-160	14	50				
Endrin	84	79	11-149	6	50				
Endrin Aldehyde	74	65	10-148	14	35				
Endrin Ketone	81	79	22-165	2	50				
Heptachlor	90	86	13-126	5	50				
Heptachlor Epoxide	97	97	13-157	0	50				
Methoxychlor	104	101	32-147	3	50				
Batch number: 103500025A      Sample number(s): 6162903-6162921 UNSPK: 6162903									
PCB-1016	94	92	29-146	2	50				
PCB-1260	109	107	39-149	2	50				
Batch number: 103510029A      Sample number(s): 6162920-6162921 UNSPK: P162943									
Aldrin	77	87	16-126	12	50				
Alpha BHC	100	109	10-129	9	50				
Beta BHC	88	97	14-147	10	50				
Gamma BHC - Lindane	100	109	10-140	9	50				
p,p-DDD	80	88	16-163	10	50				
p,p-DDE	90	102	18-161	12	50				
p,p-DDT	103	116	10-176	12	50				
Delta BHC	94	106	23-140	13	50				
Dieldrin	76	84	19-154	10	50				
Endosulfan I	76	82	16-137	8	50				
Endosulfan II	70	76	28-154	9	50				
Endosulfan Sulfate	86	94	21-160	9	50				
Endrin	88	99	11-149	11	50				
Endrin Aldehyde	77	87	10-148	12	35				
Endrin Ketone	82	85	22-165	4	50				
Heptachlor	118	136*	13-126	14	50				
Heptachlor Epoxide	81	90	13-157	11	50				
Methoxychlor	102	114	32-147	11	50				
Batch number: 103470024A      Sample number(s): 6162903-6162904 UNSPK: P158224									
EFH (C12-C14)	83	92	49-123	10	20				
EFH (C15-C20)	106	113	49-123	7	20				
EFH (C21-C30)	97	99	49-123	2	20				
EFH (C30 - C40)	98	91	49-123	5	20				
EFH (C8-C11)	69	81	49-123	16	20				
Batch number: 103480003A      Sample number(s): 6162903-6162904 UNSPK: P162876									
Ethanol	89	102	24-143	13	20				
Isopropanol	88	91	75-125	4	20				
Methanol	90	115	45-136	25*	20				

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## Quality Control Summary

 Client Name: CDM Federal Programs Corp.  
 Reported: 01/21/11 at 10:22 AM

Group Number: 1225037

### Sample Matrix Quality Control

 Unspiked (UNSPK) = the sample used in conjunction with the matrix spike  
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<u>Analysis Name</u>	<u>MS</u> <u>%REC</u>	<u>MSD</u> <u>%REC</u>	<u>MS/MSD</u> <u>Limits</u>	<u>RPD</u> <u>RPD</u>	<u>BKG</u> <u>MAX</u> <u>Conc</u>	<u>DUP</u> <u>Conc</u>	<u>DUP</u> <u>RPD</u>	<u>Dup RPD</u> <u>Max</u>
Batch number: 103480019A	Sample number(s): 6162903-6162904 UNSPK: P162876							
Diethylene glycol	18*	27*	59-109	40*	20			
Ethylene glycol	57*	62*	63-107	9	20			
Propylene glycol	50*	52*	63-107	3	20			
Batch number: 103550026A	Sample number(s): 6162903-6162904 UNSPK: P163871							
m-Terphenyl	90	88	75-125	3	20			
o-Terphenyl	93	91	75-125	2	20			
p-Terphenyl	95	93	75-125	2	20			
Batch number: 103491026003A	Sample number(s): 6162903-6162921 UNSPK: 6162905 BKG: 6162905							
Antimony	36*	27*	75-125	19	20	0.144 J	0.344	82* (1) 20
Arsenic	128*	165*	75-125	11	20	4.18	3.47	19 20
Beryllium	107	122	75-125	12	20	0.275	0.235	16 (1) 20
Cadmium	129*	144*	75-125	12	20	0.173	0.181	4 (1) 20
Chromium	124	154*	75-125	12	20	15.4	13.1	16 20
Cobalt	107	128*	75-125	19	20	5.15	5.62	9 20
Copper	98	115	75-125	10	20	10.8	12.4	14 20
Lead	143*	226*	75-125	25*	20	4.95	5.72	15 20
Nickel	113	139*	75-125	14	20	8.96	7.58	17 20
Silver	121	130*	75-125	10	20	0.0591 J	0.0610 J	3 (1) 20
Thallium	118	135*	75-125	13	20	0.167	0.118	34* (1) 20
Vanadium	86	87	75-125	1	20	25.0	19.4	25* 20
Zinc	375 (2)	355 (2)	75-125	1	20	75.7	67.8	11 20
Batch number: 103491026003B	Sample number(s): 6162903-6162921 UNSPK: 6162905 BKG: 6162905							
Selenium	111	125	75-125	14	20	0.122 J	0.180 J	38* (1) 20
Batch number: 103491026003C	Sample number(s): 6162903-6162921 UNSPK: 6162905 BKG: 6162905							
Molybdenum	130*	151*	75-125	17	20	0.786	0.692	13 20
Batch number: 103491026003D	Sample number(s): 6162903-6162921 UNSPK: 6162905 BKG: 6162905							
Barium	194 (2)	364 (2)	75-125	14	20	96.6	87.3	10 20
Batch number: 103495708003	Sample number(s): 6162903-6162921 UNSPK: 6162905 BKG: 6162905							
Aluminum	902 (2)	1684 (2)	75-125	14	20	8,440	8,290	2 20
Boron	91	91	84-115	2	20	8.25	7.98	3 (1) 20
Calcium	-7886 (2)	-6941 (2)	75-125	32*	20	40,100	9,280	125* 20
Iron	509 (2)	2302 (2)	75-125	11	20	14,200	14,200	0 20
Lithium	102	101	82-114	0	20	12.1	13.7	12 20
Magnesium	197 (2)	318 (2)	75-125	5	20	4,090	4,220	3 20
Manganese	118 (2)	165 (2)	75-125	8	20	212	236	11 20
Phosphorus	141 (2)	97 (2)	75-125	7	20	510	546	7 20
Potassium	156*	145*	75-125	2	20	2,210	2,220	0 20
Sodium	97	105	75-125	7	20	283	265	6 (1) 20
Strontium	-127*	-88*	75-115	24*	20	261	43.3	143* 20
Tin	93	92	80-110	0	20	1.53 J	1.58 J	3 (1) 20
Zirconium	99	99	75-125	1	20	1.30 J	1.80 J	32* (1) 20
Batch number: 103495711003	Sample number(s): 6162903-6162921 UNSPK: 6162905 BKG: 6162905							

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## Quality Control Summary

 Client Name: CDM Federal Programs Corp.  
 Reported: 01/21/11 at 10:22 AM

Group Number: 1225037

### Sample Matrix Quality Control

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<u>Analysis Name</u>	<u>MS</u> <u>%REC</u>	<u>MSD</u> <u>%REC</u>	<u>MS/MSD</u> <u>Limits</u>	<u>RPD</u> <u>RPD</u>	<u>RPD</u> <u>MAX</u>	<u>BKG</u> <u>Conc</u>	<u>DUP</u> <u>Conc</u>	<u>DUP</u> <u>RPD</u>	<u>Dup</u> <u>RPD</u> <u>Max</u>
Mercury	98	91	65-135	8	20	0.0122 J	0.0078 J	43* (1)	20
Batch number: 103545708005 Titanium	Sample number(s): 6162903-6162921 UNSPK: 6162903 BKG: 6162903 302 (2) 338 (2) 75-125 2 20 1,210 1,190 2 20								
Batch number: 10356356201A 7a Perchlorate EPA 314.0	Sample number(s): 6162903-6162905 UNSPK: P162864 BKG: P162864 101 80-120 9.0 U 9.0 U 0 (1) 15								
Batch number: 10357102201A 21a Cyanide by 9012B	Sample number(s): 6162903-6162904 UNSPK: P162827 BKG: P162827 105 75-125 0.18 U 0.18 U 0 (1) 20								
Batch number: 10357357201A 7a Perchlorate EPA 314.0	Sample number(s): 6162906-6162915 UNSPK: 6162906 BKG: 6162906 91 80-120 19.9 J 9.0 U 200* (1) 15								
Batch number: 10357357201B 7a Perchlorate EPA 314.0	Sample number(s): 6162916-6162921 UNSPK: P162943 BKG: P162943 100 80-120 9.0 U 9.0 U 0 (1) 15								
Batch number: 10359243202A 3a Cr VI by EPA 7199	Sample number(s): 6162903-6162921 UNSPK: 6162910 BKG: 6162910 91 75-125 1.5 1.0 36* (1) 20								
Batch number: 10361361201A 11a Anions by 300.0 - Fluoride 11a Anions by 300.0 - Nitrate	Sample number(s): 6162903-6162910 UNSPK: P162791 BKG: P162791 94 80-120 1.8 1.7 7 (1) 20 99 80-120 5.8 5.5 6 (1) 20								
Batch number: 10362362201B 11a Anions by 300.0 - Fluoride	Sample number(s): 6162921 UNSPK: P162960 BKG: P162960 72* 80-120 4.7 5.8 21* (1) 20								
Batch number: 10362362202A 11a Anions by 300.0 - Fluoride	Sample number(s): 6162911-6162920 UNSPK: 6162911 BKG: 6162911 67* 80-120 3.2 2.1 42* (1) 20								
Batch number: 10348039402A 22a pH by 9045C	Sample number(s): 6162903-6162905 BKG: P162875 7.26 7.26 0 1								
Batch number: 10348039402B 22a pH by 9045C	Sample number(s): 6162906-6162916 BKG: 6162906 8.57 8.57 0 1								
Batch number: 10348039403A 22a pH by 9045C	Sample number(s): 6162917-6162921 BKG: 6162917 8.50 8.52 0 1								
Batch number: 10348182102A Oxidation Reduction Potential	Sample number(s): 6162903-6162905 BKG: P162875 473 473 0 6								
Batch number: 10348182102B Oxidation Reduction Potential	Sample number(s): 6162906-6162916 BKG: 6162906 414 414 0 6								
Batch number: 10348182103A Oxidation Reduction Potential	Sample number(s): 6162917-6162921 BKG: 6162917 389 391 0 6								
Batch number: 10349162401A 28a Moisture Content by 160.3	Sample number(s): 6162905-6162914 BKG: P154843 20.4 27.1 28* 20								
Batch number: 10349162401B 28a Moisture Content by 160.3	Sample number(s): 6162915-6162921 BKG: 6162915 13.7 13.5 1 20								

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## Quality Control Summary

 Client Name: CDM Federal Programs Corp.  
 Reported: 01/21/11 at 10:22 AM

Group Number: 1225037

### Sample Matrix Quality Control

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<u>Analysis Name</u>	<u>MS</u> <u>%REC</u>	<u>MSD</u> <u>%REC</u>	<u>MS/MSD</u> <u>Limits</u>	<u>RPD</u> <u>MAX</u>	<u>BKG</u> <u>Conc</u>	<u>DUP</u> <u>Conc</u>	<u>DUP</u> <u>RPD</u>	<u>Dup RPD</u> <u>Max</u>
Batch number: 10357162401A 28a Moisture Content by 160.3			Sample number(s): 6162903-6162904		BKG: P162818 10	10.2	2	20

### Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 1a Volatile Organics EPA 8260B

Batch number: B103482AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
6162903	104	99	98	87
6162904	104	103	96	93
Blank	104	102	96	92
LCS	101	105	100	100
MS	100	100	102	98
MSD	101	103	101	98
Limits:	80-120	80-120	81-117	74-121

Analysis Name: 14a 1,4-Dioxane by 8260B SIM

Batch number: E103493AA

	Toluene-d8
6162903	100
6162904	100
Blank	99
LCS	99
LCSD	101
MS	101
MSD	100

Limits: 70-130

Analysis Name: 19a NDMA by 1625C

Batch number: 10349SLE026

	N-Nitrosodimethylamine-d6
6162903	80
6162904	101
Blank	98
LCS	90
MS	91
MSD	103

Limits: 50-150

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## Quality Control Summary

 Client Name: CDM Federal Programs Corp.  
 Reported: 01/21/11 at 10:22 AM

Group Number: 1225037

### Surrogate Quality Control

 Analysis Name: 4a Select SVOC EPA 8270SIM  
 Batch number: 10349SLG026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6162903	99	86	112
6162904	95	87	102
6162905	93	82	98
6162906	98	91	115
6162907	92	84	107
6162908	95	89	113
6162909	97	87	106
6162910	96	86	107
6162911	96	88	105
6162912	103	96	100
6162913	93	88	88
6162914	95	91	89
6162915	100	94	94
6162916	101	96	98
6162917	98	95	102
6162918	100	96	106
6162919	96	92	92
6162920	100	93	95
6162921	103	67	90
Blank	99	87	95
LCS	99	86	95
MS	76	66	86
MSD	100	86	106
Limits:	40-130	45-130	45-135

 Analysis Name: 5a Semivolatiles by EPA 8270C  
 Batch number: 10349SLJ026

	Phenol-d6	2-Fluorophenol	2,4,6-Tribromophenol	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6162903	96	94	82	86	86	94
6162904	97	93	80	84	84	97
6162905	98	94	84	88	93	93
6162906	93	89	80	84	87	87
6162907	94	91	83	86	89	89
6162908	91	88	78	84	84	90
6162909	93	90	81	86	90	95
6162910	94	91	80	86	90	91
6162911	93	89	76	83	86	92
6162912	94	92	77	88	91	89
6162913	94	92	77	87	89	90
6162914	92	91	77	87	89	92
6162915	96	93	78	87	92	91
6162916	92	90	77	87	91	92
6162917	107	107	89	108	107	105
6162918	93	91	80	86	89	93
6162919	95	92	81	89	91	92
6162920	90	96	90	89	85	89
6162921	93	100	90	92	91	99
Blank	94	89	84	86	84	85
LCS	104	98	89	89	88	89
MS	101	98	89	91	90	96
MSD	99	96	86	91	90	97

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## Quality Control Summary

Client Name: CDM Federal Programs Corp.  
Reported: 01/21/11 at 10:22 AM

Group Number: 1225037

### Surrogate Quality Control

Limits: 25-120                      25-130                      35-130                      40-130                      45-130                      45-135

Analysis Name: 9a TPH by EPA 8015B Gas C5-C12  
Batch number: 10348A34A  
Trifluorotoluene-F

---

6162903	79
6162904	81
Blank	94
LCS	96
LCSD	90

---

Limits: 61-122

Analysis Name: 17a Formaldehyde by 8315A  
Batch number: 103480007A  
Butyraldehyde

---

6162903	107
6162904	105
Blank	102
LCS	100
MS	102
MSD	99

---

Limits: 64-126

Analysis Name: 20a Energetics by 8330A  
Batch number: 103480012A  
2-Nitro-m-xylene

---

6162903	105
6162904	110
Blank	116
LCS	116
LCSD	113
MS	114
MSD	105

---

Limits: 80-146

Analysis Name: 13a Herbicides by EPA 8151  
Batch number: 103490015A  
2,4-Dichlorophenylacetic acid

---

6162905	84
6162906	99
6162907	113
6162908	122
6162909	94
6162910	88
6162911	87
6162912	99
6162913	108
6162914	94
6162915	85

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## Quality Control Summary

Client Name: CDM Federal Programs Corp.  
Reported: 01/21/11 at 10:22 AM

Group Number: 1225037

### Surrogate Quality Control

6162916 89  
6162917 109  
6162918 88  
6162919 69  
6162920 97  
6162921 101  
Blank 90  
LCS 104  
MS 83  
MSD 88

Limits: 36-156

Analysis Name: 12a Pesticides by 8081A

Batch number: 103500011A

Tetrachloro-m-xylene      Decachlorobiphenyl

6162905	77	302*
6162906	72	90
6162907	76	80
6162908	78	59
6162909	68	73
6162910	81	91
6162911	78	66
6162912	89	102
6162913	52	79
6162914	90	87
6162915	84	89
6162916	103	102
6162917	90	102
6162918	78	59
6162919	84	81
Blank	91	113
LCS	88	108
MS	83	80
MSD	77	87

Limits: 50-130      20-120

Analysis Name: 8a PCBs/PCTs by 8082

Batch number: 103500025A

Tetrachloro-m-xylene      Decachlorobiphenyl

6162903	103	118
6162904	102	118
6162905	109	74
6162906	113	108
6162907	101	104
6162908	107	112
6162909	111	121*
6162910	110	135
6162911	106	115
6162912	111	123*
6162913	108	109
6162914	109	106
6162915	102	111
6162916	101	105
6162917	100	102

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

## Quality Control Summary

Client Name: CDM Federal Programs Corp.  
Reported: 01/21/11 at 10:22 AM

Group Number: 1225037

### Surrogate Quality Control

6162918	104	105
6162919	96	102
6162920	103	102
6162921	98	107
Blank	104	108
LCS	104	112
LCSD	104	115
MS	110	122*
MSD	103	116

Limits: 53-139                      45-120

Analysis Name: 12a Pesticides by 8081A

Batch number: 103510029A

Tetrachloro-m-xylene	Decachlorobiphenyl
----------------------	--------------------

6162920	84	87
6162921	82	71
Blank	85	105
LCS	81	107
MS	81	80
MSD	89	79

Limits: 50-130                      20-120

Analysis Name: 9a TPH by EPA 8015B Oil/Diesel

Batch number: 103470024A

Chlorobenzene	Orthoterphenyl
---------------	----------------

6162903	61	82
6162904	67	78
Blank	80	89
LCS	82	86
MS	78	83
MSD	82	88

Limits: 37-125                      47-145

Analysis Name: 25a Alcohols by 8015B

Batch number: 103480003A

Acetone

6162903	84
6162904	84
Blank	88
LCS	92
MS	89
MSD	87

Limits: 42-138

Analysis Name: 27a Glycols by 8015B

Batch number: 103480019A

Tetramethylene glycol

6162903	82
6162904	78

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

## Quality Control Summary

Client Name: CDM Federal Programs Corp.  
Reported: 01/21/11 at 10:22 AM

Group Number: 1225037

### Surrogate Quality Control

Blank	95
LCS	96
MS	59
MSD	50

---

Limits: 50-119

Analysis Name: 26a Terphenyls by 8015B  
Batch number: 103550026A  
n-Triacontane-d62

---

6162903	92
6162904	95
Blank	97
LCS	94
MS	91
MSD	93

---

Limits: 50-150

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.



acct #13013 Cp# 1225037

sample # 6162903-21

CHAIN OF CUSTODY RECORD

CDM SSFL AREA IV COLLOCATED SOIL SAMPLING						VOCs/EPA 8260B	1,4-Dioxane EPA 8260SIM	SVOCs EPA 8270C & PAHs 8270 SIM	TPH-GRO EPA 8015B	TPH-EPA 8015B Mod.	*Metals EPA 6010/6020B&741A	*Hex Chrome EPA 7199*	*Fluoride EPA 300.0	*PCBs EPA 8082	*Dioxin/Furan EPA 1613B	*Perchlorate EPA 314.0	Perchlorate Confirmation by EPA 6850	*Pesticides EPA 8081A (surface soil only)	*Herbicides EPA 8151 (surface soil only)	**Nitrates EPA 300.0	**Formaldehyde EPA 8315A	**n-NDMA EPA 1625C	**Energetics EPA 8330A	**Cyanide EPA 9012B	**pH EPA 9045C	**Terphenyls EPA 8015B	**Glycols EPA 8015B	**Alcohols EPA 8015B	Other Instructions and Notes	
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers																									
SL-051-SASB-SS-0.0-0.5	12.10.10	1320	soil	none	1 x 16 oz. jar & 1 sleeve			X			X	X	X	X	X		X	X												
SL-062-SASB-SS-0.0-0.5	12.10.10	1300	soil	none	1 x 16 oz. jar & 1 sleeve			X			X	X	X	X	X		X	X												
SL-064-SASB-SS-0.0-0.5	12.10.10	1315	soil	none	1 x 16 oz. jar & 1 sleeve			X			X	X	X	X	X		X	X												
SL-232-SASB-SS-0.0-0.5	12.10.10	1259	soil	none	1 x 16 oz. jar & 1 sleeve			X			X	X	X	X	X		X	X												
SL-233-SASB-SS-0.0-0.5	12.10.10	1246	soil	none	1 x 16 oz. jar & 1 sleeve			X			X	X	X	X	X		X	X												
SL-299-SASB-SS-0.0-0.5	12.10.10	1049	soil	none	1 x 16 oz. jar & 1 sleeve			X			X	X	X	X	X		X	X												
SL-300-SASB-SS-0.0-0.5	12.10.10	1104	soil	none	1 x 16 oz. jar & 1 sleeve			X			X	X	X	X	X		X	X												
SL-067-SASB-SS-0.0-0.5	12.10.10	1355	soil	none	1 x 16 oz. jar & 1 sleeve			X			X	X	X	X	X		X	X												
SL-059-SASB-SS-0.0-0.5	12.10.10	1424	soil	none	1 x 16 oz. jar & 1 sleeve			X			X	X	X	X	X		X	X												
SL-065-SASB-SS-0.0-0.5	12.10.10	1425	soil	none	1 x 16 oz. jar & 1 sleeve			X			X	X	X	X	X		X	X												
SL-061-SASB-SS-0.0-0.5	12.10.10	1345	soil	none	1 x 16 oz. jar & 1 sleeve			X			X	X	X	X	X		X	X												
SL-070-SASB-SS-0.0-0.5	12.10.10	1334	soil	none	1 x 16 oz. jar & 1 sleeve			X			X	X	X	X	X		X	X												
Relinquished by: (Signature) <i>[Signature]</i>						Date/Time		Received for Laboratory by: (Signature) <i>[Signature]</i>						Date/Time		Laboratory:														
Received by: (Signature) <i>[Signature]</i>						Date/Time		Airbill No.						Tracking Number		Lancaster Laboratories, Inc.														
						12.10.10 1630		00732992						869514317145		Cooler 4														

869514317145



# Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

<b>RL</b>	Reporting Limit	<b>BMQL</b>	Below Minimum Quantitation Level
<b>N.D.</b>	none detected	<b>MPN</b>	Most Probable Number
<b>TNTC</b>	Too Numerous To Count	<b>CP Units</b>	cobalt-chloroplatinate units
<b>IU</b>	International Units	<b>NTU</b>	nephelometric turbidity units
<b>umhos/cm</b>	micromhos/cm	<b>ng</b>	nanogram(s)
<b>C</b>	degrees Celsius	<b>F</b>	degrees Fahrenheit
<b>meq</b>	milliequivalents	<b>lb.</b>	pound(s)
<b>g</b>	gram(s)	<b>kg</b>	kilogram(s)
<b>ug</b>	microgram(s)	<b>mg</b>	milligram(s)
<b>ml</b>	milliliter(s)	<b>l</b>	liter(s)
<b>m3</b>	cubic meter(s)	<b>ul</b>	microliter(s)
<b>&lt;</b>	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
<b>&gt;</b>	greater than		
<b>J</b>	estimated value – The result is $\geq$ the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
<b>ppm</b>	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
<b>ppb</b>	parts per billion		
<b>Dry weight basis</b>	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

## U.S. EPA CLP Data Qualifiers:

Organic Qualifiers	Inorganic Qualifiers
<b>A</b> TIC is a possible aldol-condensation product	<b>B</b> Value is $<$ CRDL, but $\geq$ IDL
<b>B</b> Analyte was also detected in the blank	<b>E</b> Estimated due to interference
<b>C</b> Pesticide result confirmed by GC/MS	<b>M</b> Duplicate injection precision not met
<b>D</b> Compound quantitated on a diluted sample	<b>N</b> Spike sample not within control limits
<b>E</b> Concentration exceeds the calibration range of the instrument	<b>S</b> Method of standard additions (MSA) used for calculation
<b>N</b> Presumptive evidence of a compound (TICs only)	<b>U</b> Compound was not detected
<b>P</b> Concentration difference between primary and confirmation columns $>$ 25%	<b>W</b> Post digestion spike out of control limits
<b>U</b> Compound was not detected	<b>*</b> Duplicate analysis not within control limits
<b>X,Y,Z</b> Defined in case narrative	<b>+</b> Correlation coefficient for MSA $<$ 0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

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## ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories  
2425 New Holland Pike  
Lancaster, PA 17605-2425

Prepared for:

CDM Federal Programs Corp.  
14420 Albemarle Point Place  
Suite 210  
Chantilly VA 20151

January 13, 2011

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 12/11/2010  
Group Number: 1225039  
SDG: DE035  
PO Number: 1203-004-007-AL  
Release Number: Tracking #11667  
State of Sample Origin: CA

<u>Client Sample Description</u>	<u>Lancaster Labs (LLI) #</u>
SL-011-SA5C-SB-4.0-5.0 Soil	6162941
SL-011-SA5C-SB-9.0-10.0 Soil	6162942
SL-288-SA5B-SS-0.0-0.5 Soil	6162943
SL-288-SA5B-SS-0.0-0.5MS Soil	6162944
SL-288-SA5B-SS-0.0-0.5MSD Soil	6162945
SL-288-SA5B-SS-0.0-0.5DUP Soil	6162946
SL-290-SA5B-SS-0.0-0.5 Soil	6162947
DUP03-SA5B-QC-121010 Soil	6162948
SL-010-SA5C-SB-4.0-5.0 Soil	6162949
SL-010-SA5C-SB-9.0-10.0 Soil	6162950
SL-008-SA5C-SB-4.0-5.0 Soil	6162951
SL-008-SA5C-SB-8.0-9.0 Soil	6162952
SL-057-SA5B-SS-0.0-0.5 Soil	6162953
SL-234-SA5B-SS-0.0-0.5 Soil	6162954
SL-235-SA5B-SS-0.0-0.5 Soil	6162955
SL-287-SA5B-SS-0.0-0.5 Soil	6162956
SL-005-SA5C-SB-4.0-5.0 Soil	6162957
SL-005-SA5C-SB-9.0-10.0 Soil	6162958
SL-009-SA5C-SB-4.0-5.0 Soil	6162959
SL-009-SA5C-SB-9.0-10.0 Soil	6162960

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC      CDM Federal Services Program  
COPY TO  
1 COPY TO      Data Package Group

Attn: Todd Burgess

Questions? Contact your Client Services Representative  
Nicole L Maljovec at (717) 656-2300 Ext. 1537

Respectfully Submitted,



Chad A. Moline  
Group Leader

**Sample Description:** SL-011-SA5C-SB-4.0-5.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-011-SA5C-SB-4.0-5.0

LLI Sample # SW 6162941  
 LLI Group # 1225039  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 09:39

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3501 SDG#: DE035-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
06192	Acetone	67-64-1	7.0 U	7.0	8.3		0.95
06192	Benzene	71-43-2	0.10 U	0.10	4.2		0.95
06192	Bromobenzene	108-86-1	0.14 U	0.14	4.2		0.95
06192	Bromochloromethane	74-97-5	0.34 U	0.34	4.2		0.95
06192	Bromodichloromethane	75-27-4	0.08 U	0.08	4.2		0.95
06192	Bromoform	75-25-2	0.42 U	0.42	4.2		0.95
06192	Bromomethane	74-83-9	0.26 U	0.26	4.2		0.95
06192	2-Butanone	78-93-3	1.3 U	1.3	8.3		0.95
06192	n-Butylbenzene	104-51-8	0.13 U	0.13	4.2		0.95
06192	sec-Butylbenzene	135-98-8	0.06 U	0.06	4.2		0.95
06192	tert-Butylbenzene	98-06-6	0.17 U	0.17	4.2		0.95
06192	Carbon Tetrachloride	56-23-5	0.15 U	0.15	4.2		0.95
06192	Chlorobenzene	108-90-7	0.11 U	0.11	4.2		0.95
06192	Chloroethane	75-00-3	0.14 U	0.14	4.2		0.95
06192	2-Chloroethyl Vinyl Ether	110-75-8	0.31 U	0.31	4.2		0.95
06192	Chloroform	67-66-3	0.13 U	0.13	4.2		0.95
06192	Chloromethane	74-87-3	0.34 U	0.34	4.2		0.95
06192	2-Chlorotoluene	95-49-8	0.15 U	0.15	4.2		0.95
06192	4-Chlorotoluene	106-43-4	0.15 U	0.15	4.2		0.95
06192	Chlorotrifluoroethene	79-38-9	0.52 U	0.52	5.2		0.95
06192	1,2-Dibromo-3-chloropropane	96-12-8	0.73 U	0.73	4.2		0.95
06192	Dibromochloromethane	124-48-1	0.21 U	0.21	4.2		0.95
06192	1,2-Dibromoethane	106-93-4	0.18 U	0.18	4.2		0.95
06192	Dibromomethane	74-95-3	0.25 U	0.25	4.2		0.95
06192	1,2-Dichlorobenzene	95-50-1	0.09 U	0.09	4.2		0.95
06192	1,3-Dichlorobenzene	541-73-1	0.13 U	0.13	4.2		0.95
06192	1,4-Dichlorobenzene	106-46-7	0.17 U	0.17	4.2		0.95
06192	Dichlorodifluoromethane	75-71-8	0.13 U	0.13	4.2		0.95
06192	1,1-Dichloroethane	75-34-3	0.10 U	0.10	4.2		0.95
06192	1,2-Dichloroethane	107-06-2	0.16 U	0.16	4.2		0.95
06192	1,1-Dichloroethene	75-35-4	0.41 U	0.41	4.2		0.95
06192	cis-1,2-Dichloroethene	156-59-2	0.20 U	0.20	4.2		0.95
06192	trans-1,2-Dichloroethene	156-60-5	0.13 U	0.13	4.2		0.95
06192	1,2-Dichloropropane	78-87-5	0.18 U	0.18	4.2		0.95
06192	1,3-Dichloropropane	142-28-9	0.08 U	0.08	4.2		0.95
06192	2,2-Dichloropropane	594-20-7	0.18 U	0.18	4.2		0.95
06192	1,1-Dichloropropene	563-58-6	0.14 U	0.14	4.2		0.95
06192	cis-1,3-Dichloropropene	10061-01-5	0.17 U	0.17	4.2		0.95
06192	trans-1,3-Dichloropropene	10061-02-6	0.18 U	0.18	4.2		0.95
06192	Ethylbenzene	100-41-4	0.06 U	0.06	4.2		0.95
06192	Freon 113	76-13-1	0.11 U	0.11	4.2		0.95
06192	Freon 133a	75-88-7	0.52 U	0.52	5.2		0.95
06192	Hexachlorobutadiene	87-68-3	0.15 U	0.15	4.2		0.95
06192	2-Hexanone	591-78-6	1.7 U	1.7	8.3		0.95
06192	Isopropylbenzene	98-82-8	0.06 U	0.06	4.2		0.95
06192	p-Isopropyltoluene	99-87-6	0.11 U	0.11	4.2		0.95
06192	Methyl Tertiary Butyl Ether	1634-04-4	0.22 U	0.22	4.2		0.95
06192	4-Methyl-2-pentanone	108-10-1	0.41 U	0.41	8.3		0.95
06192	Methylene Chloride	75-09-2	0.94 J	0.25	4.2		0.95
06192	n-Propylbenzene	103-65-1	0.07 U	0.07	4.2		0.95

\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-011-SA5C-SB-4.0-5.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-011-SA5C-SB-4.0-5.0

**LLI Sample #** SW 6162941  
**LLI Group #** 1225039  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 09:39

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3501 SDG#: DE035-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS Volatiles SW-846 8260B</b>							
06192	Styrene	100-42-5	0.10 U	0.10	4.2		0.95
06192	1,1,1,2-Tetrachloroethane	630-20-6	0.11 U	0.11	4.2		0.95
06192	1,1,2,2-Tetrachloroethane	79-34-5	0.24 U	0.24	4.2		0.95
06192	Tetrachloroethene	127-18-4	0.21 U	0.21	4.2		0.95
06192	Toluene	108-88-3	0.11 J	0.08	4.2		0.95
06192	1,2,3-Trichlorobenzene	87-61-6	0.15 U	0.15	4.2		0.95
06192	1,2,4-Trichlorobenzene	120-82-1	0.19 U	0.19	4.2		0.95
06192	1,1,1-Trichloroethane	71-55-6	0.21 U	0.21	4.2		0.95
06192	1,1,2-Trichloroethane	79-00-5	0.28 U	0.28	4.2		0.95
06192	Trichloroethene	79-01-6	0.16 U	0.16	4.2		0.95
06192	Trichlorofluoromethane	75-69-4	0.30 U	0.30	4.2		0.95
06192	1,2,3-Trichloropropane	96-18-4	0.34 U	0.34	4.2		0.95
06192	1,2,4-Trimethylbenzene	95-63-6	0.42 U	0.42	4.2		0.95
06192	1,3,5-Trimethylbenzene	108-67-8	0.10 U	0.10	4.2		0.95
06192	Vinyl Chloride	75-01-4	0.21 U	0.21	4.2		0.95
06192	m+p-Xylene	179601-23-1	0.18 U	0.18	4.2		0.95
06192	o-Xylene	95-47-6	0.18 U	0.18	4.2		0.95
<b>GC/MS Volatiles SW-846 8260B SIM</b>							
10326	1,4-Dioxane	123-91-1	5.2 U	5.2	15		23.41
<b>GC/MS Semivolatiles EPA 1625C</b>							
11622	N-Nitrosodimethylamine	62-75-9	18.3 U	18.3	36.7		1
<b>GC/MS Semivolatiles SW-846 8270C</b>							
04688	Aniline	62-53-3	180	U 180	550		1
04688	Benzidine	92-87-5	1,300	U 1,300	3,700		1
04688	Benzoic acid	65-85-0	180	U 180	550		1
04688	Benzyl alcohol	100-51-6	180	U 180	550		1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180		1
04688	Di-n-butylphthalate	84-74-2	18	U 18	180		1
04688	Carbazole	86-74-8	18	U 18	180		1
04688	4-Chloro-3-methylphenol	59-50-7	37	U 37	180		1
04688	4-Chloroaniline	106-47-8	73	U 73	180		1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180		1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180		1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180		1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180		1
04688	2-Chlorophenol	95-57-8	18	U 18	180		1
04688	4-Chlorophenyl-phenylether	7005-72-3	37	U 37	180		1
04688	Dibenzofuran	132-64-9	18	U 18	180		1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180		1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180		1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180		1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	370		1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180		1
04688	2,4-Dimethylphenol	105-67-9	37	U 37	180		1
04688	3,5-Dimethylphenol	108-68-9	37	U 37	180		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	550		1

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**Sample Description:** SL-011-SA5C-SB-4.0-5.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-011-SA5C-SB-4.0-5.0

**LLI Sample #** SW 6162941  
**LLI Group #** 1225039  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 09:39

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3501 SDG#: DE035-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04688	2,4-Dinitrophenol	51-28-5	730	U 730	2,200		1
04688	2,4-Dinitrotoluene	121-14-2	37	U 37	180		1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180		1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180		1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	21	J 18	370		1
04688	Hexachlorobenzene	118-74-1	18	U 18	180		1
04688	Hexachlorobutadiene	87-68-3	73	U 73	180		1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	550		1
04688	Hexachloroethane	67-72-1	18	U 18	180		1
04688	Isophorone	78-59-1	18	U 18	180		1
04688	2-Methylphenol	95-48-7	37	U 37	180		1
04688	4-Methylphenol	106-44-5	37	U 37	180		1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.							
04688	2-Nitroaniline	88-74-4	18	U 18	180		1
04688	3-Nitroaniline	99-09-2	37	U 37	180		1
04688	4-Nitroaniline	100-01-6	73	U 73	180		1
04688	Nitrobenzene	98-95-3	18	U 18	180		1
04688	2-Nitrophenol	88-75-5	18	U 18	180		1
04688	4-Nitrophenol	100-02-7	180	U 180	550		1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180		1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180		1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.							
04688	Pentachlorophenol	87-86-5	180	U 180	550		1
04688	Phenol	108-95-2	18	U 18	180		1
04688	1,2,4-Trichlorobenzene	120-82-1	18	U 18	180		1
04688	2,4,5-Trichlorophenol	95-95-4	37	U 37	180		1
04688	2,4,6-Trichlorophenol	88-06-2	37	U 37	180		1
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C SIM</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10138	Acenaphthene	83-32-9	0.73	U 0.73	1.8		1
10138	Acenaphthylene	208-96-8	0.37	U 0.37	1.8		1
10138	Anthracene	120-12-7	0.37	U 0.37	1.8		1
10138	Benzo(a)anthracene	56-55-3	1.3	J 0.73	1.8		1
10138	Benzo(a)pyrene	50-32-8	1.4	J 0.73	1.8		1
10138	Benzo(b)fluoranthene	205-99-2	1.9	U 0.73	1.8		1
10138	Benzo(g,h,i)perylene	191-24-2	0.74	J 0.73	1.8		1
10138	Benzo(k)fluoranthene	207-08-9	0.73	U 0.73	1.8		1
10138	Butylbenzylphthalate	85-68-7	6.6	U 6.6	20		1
10138	Chrysene	218-01-9	1.9	U 0.37	1.8		1
10138	Dibenz(a,h)anthracene	53-70-3	0.73	U 0.73	1.8		1
10138	Diethylphthalate	84-66-2	6.6	U 6.6	20		1
10138	Dimethylphthalate	131-11-3	6.6	U 6.6	20		1
10138	Fluoranthene	206-44-0	2.5	U 0.73	1.8		1
10138	Fluorene	86-73-7	0.73	U 0.73	1.8		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.73	U 0.73	1.8		1

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 SSFL Area IV Collocated Soil Sampling  
 SL-011-SA5C-SB-4.0-5.0

**LLI Sample #** SW 6162941  
**LLI Group #** 1225039  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

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D3501 SDG#: DE035-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS Semivolatiles SW-846 8270C SIM</b>							
10138	1-Methylnaphthalene	90-12-0	0.73 U	0.73	1.8	ug/kg	1
10138	2-Methylnaphthalene	91-57-6	0.73 U	0.73	1.8	ug/kg	1
10138	Naphthalene	91-20-3	0.73 U	0.73	1.8	ug/kg	1
10138	N-Nitrosodimethylamine	62-75-9	0.73 U	0.73	1.8	ug/kg	1
10138	Di-n-octylphthalate	117-84-0	6.6 U	6.6	20	ug/kg	1
10138	Phenanthrene	85-01-8	0.73 U	0.73	1.8	ug/kg	1
10138	Pyrene	129-00-0	2.5 U	0.73	1.8	ug/kg	1
<b>GC Volatiles TPH GRO SW-846 8015B mod</b>							
05551	9a TPH by EPA 8015B Gas C5-C12	n.a.	0.2 U	0.2	1.0	mg/kg	23.72
<b>Explosives SW-846 8330A</b>							
10132	4-Amino-2,6-Dinitrotoluene	19406-51-0	83 U	83	170	1000000	1
10132	2-Amino-4,6-Dinitrotoluene	35572-78-2	55 U	55	170	1000000	1
10132	2,6-Diamino-4-nitrotoluene	59229-75-3	110 U	110	330	1000000	1
10132	2,4-Diamino-6-nitrotoluene	6629-29-4	110 U	110	330	1000000	1
10132	1,3-Dinitrobenzene	99-65-0	55 U	55	170	1000000	1
10132	2,4-Dinitrotoluene	121-14-2	55 U	55	170	1000000	1
10132	2,6-Dinitrotoluene	606-20-2	55 U	55	170	1000000	1
10132	HMX	2691-41-0	140 U	140	410	1000000	1
10132	Nitrobenzene	98-95-3	55 U	55	170	1000000	1
10132	Nitroglycerin	55-63-0	1,100 U	1,100	3,300	1000000	1
10132	2-Nitrotoluene	88-72-2	110 U	110	170	1000000	1
10132	3-Nitrotoluene	99-08-1	140 U	140	170	1000000	1
10132	4-Nitrotoluene	99-99-0	110 U	110	170	1000000	1
10132	PETN	78-11-5	1,100 U	1,100	3,300	1000000	1
10132	RDX	121-82-4	69 U	69	170	1000000	1
10132	Tetryl	479-45-8	84 U	84	170	1000000	1
10132	1,3,5-Trinitrobenzene	99-35-4	55 U	55	170	1000000	1
10132	2,4,6-Trinitrotoluene	118-96-7	55 U	55	170	1000000	1

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LLI Sample # SW 6162941  
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CAT No.	Analysis Name	CAS Number	Dry Result		Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>HPLC Organics</b>								
	<b>SW-846 8315A</b>		<b>ug/kg</b>		<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04173	17a Formaldehyde by 8315A	50-00-0	660 U		660	1,700		1
<b>Pesticides/PCBs</b>								
	<b>SW-846 8082</b>		<b>ug/kg</b>		<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10225	Aroclor 5432	63496-31-1	1.1 U		1.1	3.6		1
10225	Aroclor 5442	12642-23-8	1.1 U		1.1	3.6		1
10225	Aroclor 5460	11126-42-4	1.4 J		1.1	3.6		1
10225	PCB-1016	12674-11-2	0.36 U		0.36	1.9		1
10225	PCB-1221	11104-28-2	0.55 U		0.55	1.9		1
10225	PCB-1232	11141-16-5	0.57 U		0.57	1.9		1
10225	PCB-1242	53469-21-9	0.55 U		0.55	1.9		1
10225	PCB-1248	12672-29-6	2.7		0.36	1.9		1
10225	PCB-1254	11097-69-1	0.36 U		0.36	1.9		1
10225	PCB-1260	11096-82-5	0.64 J		0.36	1.9		1
10225	PCB-1262	37324-23-5	0.36 U		0.36	1.9		1
10225	PCB-1268	11100-14-4	0.36 U		0.36	1.9		1
The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.								
<b>GC Extractable TPH</b>								
	<b>SW-846 8015B modified</b>		<b>mg/kg</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
10199	EFH (C12-C14)	n.a.	0.88 U		0.88	2.6		2
10199	EFH (C15-C20)	n.a.	0.88 U		0.88	2.6		2
10199	EFH (C21-C30)	n.a.	25		0.88	2.6		2
10199	EFH (C30 - C40)	n.a.	75		0.88	2.6		2
10199	EFH (C8-C11)	n.a.	0.88 U		0.88	2.6		2
<b>GC Miscellaneous</b>								
	<b>SW-846 8015B</b>		<b>ug/kg</b>		<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10501	Ethanol	64-17-5	230 J		110	550		1
10501	Isopropanol	67-63-0	110 U		110	550		1
10501	Methanol	67-56-1	110 U		110	550		1
<b>GC Miscellaneous</b>								
	<b>SW-846 8015B modified</b>		<b>mg/kg</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
08283	Diethylene glycol	111-46-6	5.5 U		5.5	14		1
08283	Ethylene glycol	107-21-1	5.5 U		5.5	14		1
08283	Propylene glycol	57-55-6	5.5 U		5.5	14		1
<b>Terphenyls</b>								
	<b>SW-846 8015B</b>		<b>mg/kg</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
10318	m-Terphenyl	92-06-8	1.7 U		1.7	3.9		1
10318	o-Terphenyl	84-15-1	1.7 U		1.7	3.9		1
10318	p-Terphenyl	92-94-4	1.7 U		1.7	3.9		1
<b>Metals</b>								
	<b>SW-846 6010B</b>		<b>mg/kg</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
01643	Aluminum	7429-90-5	14,500		5.43	21.6		1
07914	Boron	7440-42-8	7.01		0.960	5.39		1
01650	Calcium	7440-70-2	3,650		6.61	21.6		1
01654	Iron	7439-89-6	19,200		5.08	21.6		1

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 SSFL Area IV Collocated Soil Sampling  
 SL-011-SA5C-SB-4.0-5.0

LLI Sample # SW 6162941  
 LLI Group # 1225039  
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Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3501 SDG#: DE035-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Metals</b>							
		<b>SW-846 6010B</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
01656	Lithium	7439-93-2	18.6	0.24	2.2		1
01657	Magnesium	7439-95-4	3,810	2.74	10.8		1
06958	Manganese	7439-96-5	253	0.0841	0.539		1
10145	Phosphorus	7723-14-0	296	0.604	10.8		1
01662	Potassium	7440-09-7	2,600	19.4	53.9		1
01667	Sodium	7440-23-5	215	40.2	108		1
07968	Strontium	7440-24-6	19.3	0.0669	0.539		1
06969	Tin	7440-31-5	2.43 J	1.08	10.8		1
06970	Titanium	7440-32-6	1,170	0.418	1.10		1
10146	Zirconium	7440-67-7	0.930 J	0.906	5.39		1
		<b>SW-846 6020</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
06124	Antimony	7440-36-0	0.219	0.0647	0.216		2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	7.91	0.0647	0.431		2
06126	Barium	7440-39-3	129	0.116	0.431		2
06127	Beryllium	7440-41-7	0.804	0.0173	0.108		2
06128	Cadmium	7440-43-9	0.176	0.0388	0.108		2
06131	Chromium	7440-47-3	23.9	0.129	0.431		2
06132	Cobalt	7440-48-4	7.33	0.0216	0.108		2
06133	Copper	7440-50-8	10.5	0.0712	0.431		2
06135	Lead	7439-92-1	9.04	0.0112	0.216		2
06138	Molybdenum	7439-98-7	0.860	0.0539	0.108		2
06139	Nickel	7440-02-0	13.8	0.108	0.431		2
06141	Selenium	7782-49-2	0.213 J	0.0431	0.431		2
06142	Silver	7440-22-4	0.0422 J	0.0129	0.108		2
06145	Thallium	7440-28-0	0.424	0.0324	0.108		2
06148	Vanadium	7440-62-2	50.2	0.0237	0.108		2
06149	Zinc	7440-66-6	83.8	0.604	3.24		2
		<b>SW-846 7471A</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
00159	Mercury	7439-97-6	0.0031 U	0.0031	0.108		1
<b>Wet Chemistry</b>							
		<b>EPA 300.0</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	5.5	0.88	1.1		1
07336	11a Anions by 300.0 - Nitrate	14797-55-8	0.88 U	0.88	1.7		1
		<b>EPA 314.0</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.9 U	9.9	33.0		1
		<b>SW-846 7199</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
05892	3a Cr VI by EPA 7199	18540-29-9	1.5	0.22	1.1		1
		<b>SW-846 9012B</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
05895	21a Cyanide by 9012B	57-12-5	0.19 U	0.19	0.54		1

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 SSFL Area IV Collocated Soil Sampling  
 SL-011-SA5C-SB-4.0-5.0

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D3501 SDG#: DE035-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Wet Chemistry</b>		<b>SW-846 9012B</b>	mg/kg	mg/kg	mg/kg	mg/kg	
The sample was analyzed outside of the 14 day holding time for Total Cyanide.							
		<b>ASTM D1498</b>	mV	mV	mV	mV	
01821	Oxidation Reduction Potential	n.a.	446	10.0	10.0		1
The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.							
		<b>SW-846 9045C modified</b>	Std. Units	Std. Units	Std. Units	Std. Units	
00394	22a pH by 9045C	n.a.	8.45	0.0100	0.0100		1
<b>Wet Chemistry</b>		<b>EPA 160.3 modified</b>	%	%	%	%	
11624	28a Moisture Content by 160.3	n.a.	9.1	0.50	0.50		1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.							

### General Sample Comments

State of California Lab Certification No. 2501  
 The volatile analysis was performed on soil from SL-011-SA5C-SB-4.5.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06192	1a Volatile Organics EPA 8260B	SW-846 8260B	1	B103482AA	12/15/2010 00:35	Laura M Krieger	0.95
10326	14a 1,4-Dioxane by 8260B SIM	SW-846 8260B SIM	1	E103493AA	12/16/2010 00:10	Sara E Johnson	23.41
08390	GC/MS - HL Encore Prep	SW-846 5035	1	201034523272	12/11/2010 18:36	Christopher D Meeks	n.a.
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035	1	201034523272	12/11/2010 19:11	Christopher D Meeks	n.a.
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035	2	201034523272	12/11/2010 19:11	Christopher D Meeks	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035	1	201034523272	12/11/2010 18:36	Christopher D Meeks	n.a.
11622	19a NDMA by 1625C	EPA 1625C	1	10354SLC026	12/30/2010 21:56	Timothy J Trees	1
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10350SLB026	01/01/2011 01:09	Ryan P Byrne	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10349SLH026	12/22/2010 13:16	Mark A Clark	1
11630	NDMA Soil Microwave	SW-846 3546	1	10354SLC026	12/20/2010 14:45	Olivia I Santiago	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10349SLH026	12/16/2010 06:15	Joseph S Feister	1

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D3501 SDG#: DE035-01

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00381	BNA Soil Sonication	SW-846 3550B	1	10350SLB026	12/16/2010 17:30	Sally L Appleyard	1
05551	9a TPH by EPA 8015B Gas C5-C12	TPH GRO SW-846 8015B mod	1	10340B34B	12/14/2010 13:58	Elizabeth J Marin	23.72
06130	GC - 5 g HL Encore Prep	SW-846 5035	1	201034523272	12/11/2010 18:36	Christopher D Meeks	n.a.
10132	20a Energetics by 8330A	SW-846 8330A	1	103480012A	12/16/2010 22:21	Michele D Hamilton	1
04173	17a Formaldehyde by 8315A	SW-846 8315A	1	103480007A	12/16/2010 01:19	Michele D Hamilton	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	103500026A	12/22/2010 00:43	Lindsey K Lafferty	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	103500026A	12/17/2010 00:40	David V Hershey Jr	1
05876	Formaldehyde Solid Extraction	SW-846 8315A	1	103480007A	12/14/2010 15:00	Kelli M Barto	1
11137	Energetics Extraction	SW-846 8330	1	103480012A	12/14/2010 14:45	Wanda F Oswald	1
10199	9a TPH by EPA 8015B Oil/Diesel	SW-846 8015B modified	1	103570006A	12/29/2010 22:07	Heather E Williams	2
10501	25a Alcohols by 8015B	SW-846 8015B	1	103480003A	12/15/2010 18:07	Dustin A Underkoffler	1
08283	27a Glycols by 8015B	SW-846 8015B modified	1	103480019A	12/17/2010 16:42	Robert Brown	1
10318	26a Terphenyls by 8015B	SW-846 8015B	1	103570035A	12/25/2010 07:54	Heather E Williams	1
11238	EFH Extraction - Soils	SW-846 3550B	2	103570006A	12/23/2010 17:00	JoElla L Rice	1
10303	Terphenyls soil prep	SW-846 3550B	1	103570035A	12/24/2010 03:55	David V Hershey Jr	1
11551	Direct Inj. Solids Glycol Ext.	SW-846 8015B	1	103480019A	12/15/2010 12:00	Dustin A Underkoffler	1
00380	Direct Injection Solids Ext	SW-846 8015B	1	103480003A	12/15/2010 12:00	Dustin A Underkoffler	1
01643	Aluminum	SW-846 6010B	1	103495708006	12/17/2010 19:23	John P Hook	1
07914	Boron	SW-846 6010B	1	103495708006	12/17/2010 19:23	John P Hook	1
01650	Calcium	SW-846 6010B	1	103495708006	12/17/2010 19:23	John P Hook	1
01654	Iron	SW-846 6010B	1	103495708006	12/17/2010 19:23	John P Hook	1
01656	Lithium	SW-846 6010B	1	103495708006	12/22/2010 15:46	John P Hook	1
01657	Magnesium	SW-846 6010B	1	103495708006	12/17/2010 19:23	John P Hook	1
06958	Manganese	SW-846 6010B	1	103495708006	12/17/2010 19:23	John P Hook	1
10145	Phosphorus	SW-846 6010B	1	103495708006	12/17/2010 19:23	John P Hook	1
01662	Potassium	SW-846 6010B	1	103495708006	12/17/2010 19:23	John P Hook	1
01667	Sodium	SW-846 6010B	1	103495708006	12/17/2010 19:23	John P Hook	1
07968	Strontium	SW-846 6010B	1	103495708006	12/17/2010 19:23	John P Hook	1
06969	Tin	SW-846 6010B	1	103495708006	12/17/2010 19:23	John P Hook	1
06970	Titanium	SW-846 6010B	1	103555708001	12/22/2010 07:50	Joanne M Gates	1
10146	Zirconium	SW-846 6010B	1	103495708006	12/21/2010 07:44	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	103491026005A	12/23/2010 11:52	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103491026005A	12/23/2010 11:52	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103491026005D	12/23/2010 11:52	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103491026005A	12/23/2010 11:52	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103491026005A	12/23/2010 11:52	Choon Y Tian	2

\*—This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description: SL-011-SA5C-SB-4.0-5.0 Soil**  
**SSFL Area IV Collocated Soil Sampling**  
**SL-011-SA5C-SB-4.0-5.0**

**LLI Sample # SW 6162941**  
**LLI Group # 1225039**  
**Account # 13013**

**Project Name: SSFL Area IV Collocated Soil Sampling**

Collected: 12/10/2010 09:39

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3501 SDG#: DE035-01

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06131	Chromium	SW-846 6020	1	103491026005A	12/23/2010 11:52	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103491026005A	12/23/2010 11:52	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103491026005A	12/23/2010 11:52	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103491026005A	12/23/2010 11:52	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103491026005C	12/23/2010 11:52	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103491026005A	12/23/2010 11:52	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103491026005B	12/23/2010 11:52	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103491026005A	12/23/2010 11:52	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103491026005A	12/23/2010 11:52	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103491026005A	12/23/2010 11:52	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	103491026005A	12/23/2010 11:52	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	103495711005	12/16/2010 06:34	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	103495708006	12/15/2010 20:01	Annamaria Stipkovits	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	103555708001	12/21/2010 12:28	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103491026005	12/15/2010 20:03	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	103495711005	12/15/2010 22:15	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10362362201A	12/30/2010 00:47	Ashley M Adams	1
07336	11a Anions by 300.0 - Nitrate	EPA 300.0	1	10362362201A	12/30/2010 00:47	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10357357201B	12/28/2010 06:40	Ashley M Adams	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	10358243201A	12/29/2010 09:47	Ashley M Adams	1
05895	21a Cyanide by 9012B	SW-846 9012B	1	10361102201A	12/27/2010 18:34	Joseph E McKenzie	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10362362201A	12/28/2010 11:00	Erik J Frederiksen	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10357357201B	12/23/2010 19:30	Carolyn M Mastropietro	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	10361102201A	12/27/2010 08:55	Nancy J Shoop	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10348182103A	12/14/2010 13:00	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10348039403A	12/14/2010 13:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10358243201A	12/24/2010 07:00	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	1	10357162401B	12/23/2010 21:06	Scott W Freisher	1

\*-This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-011-SA5C-SB-9.0-10.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-011-SA5C-SB-9.0-10.0

LLI Sample # SW 6162942  
 LLI Group # 1225039  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 09:45

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3502 SDG#: DE035-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
06192	Acetone	67-64-1	6.8 U	6.8	8.1		0.93
06192	Benzene	71-43-2	0.10 U	0.10	4.0		0.93
06192	Bromobenzene	108-86-1	0.13 U	0.13	4.0		0.93
06192	Bromochloromethane	74-97-5	0.33 U	0.33	4.0		0.93
06192	Bromodichloromethane	75-27-4	0.08 U	0.08	4.0		0.93
06192	Bromoform	75-25-2	0.40 U	0.40	4.0		0.93
06192	Bromomethane	74-83-9	0.25 U	0.25	4.0		0.93
06192	2-Butanone	78-93-3	1.2 U	1.2	8.1		0.93
06192	n-Butylbenzene	104-51-8	0.12 U	0.12	4.0		0.93
06192	sec-Butylbenzene	135-98-8	0.06 U	0.06	4.0		0.93
06192	tert-Butylbenzene	98-06-6	0.16 U	0.16	4.0		0.93
06192	Carbon Tetrachloride	56-23-5	0.14 U	0.14	4.0		0.93
06192	Chlorobenzene	108-90-7	0.11 U	0.11	4.0		0.93
06192	Chloroethane	75-00-3	0.13 U	0.13	4.0		0.93
06192	2-Chloroethyl Vinyl Ether	110-75-8	0.30 U	0.30	4.0		0.93
06192	Chloroform	67-66-3	0.12 U	0.12	4.0		0.93
06192	Chloromethane	74-87-3	0.33 U	0.33	4.0		0.93
06192	2-Chlorotoluene	95-49-8	0.14 U	0.14	4.0		0.93
06192	4-Chlorotoluene	106-43-4	0.14 U	0.14	4.0		0.93
06192	Chlorotrifluoroethene	79-38-9	0.50 U	0.50	5.0		0.93
06192	1,2-Dibromo-3-chloropropane	96-12-8	0.71 U	0.71	4.0		0.93
06192	Dibromochloromethane	124-48-1	0.20 U	0.20	4.0		0.93
06192	1,2-Dibromoethane	106-93-4	0.17 U	0.17	4.0		0.93
06192	Dibromomethane	74-95-3	0.24 U	0.24	4.0		0.93
06192	1,2-Dichlorobenzene	95-50-1	0.09 U	0.09	4.0		0.93
06192	1,3-Dichlorobenzene	541-73-1	0.12 U	0.12	4.0		0.93
06192	1,4-Dichlorobenzene	106-46-7	0.16 U	0.16	4.0		0.93
06192	Dichlorodifluoromethane	75-71-8	0.12 U	0.12	4.0		0.93
06192	1,1-Dichloroethane	75-34-3	0.10 U	0.10	4.0		0.93
06192	1,2-Dichloroethane	107-06-2	0.15 U	0.15	4.0		0.93
06192	1,1-Dichloroethene	75-35-4	0.39 U	0.39	4.0		0.93
06192	cis-1,2-Dichloroethene	156-59-2	0.19 U	0.19	4.0		0.93
06192	trans-1,2-Dichloroethene	156-60-5	0.12 U	0.12	4.0		0.93
06192	1,2-Dichloropropane	78-87-5	0.17 U	0.17	4.0		0.93
06192	1,3-Dichloropropane	142-28-9	0.08 U	0.08	4.0		0.93
06192	2,2-Dichloropropane	594-20-7	0.17 U	0.17	4.0		0.93
06192	1,1-Dichloropropene	563-58-6	0.13 U	0.13	4.0		0.93
06192	cis-1,3-Dichloropropene	10061-01-5	0.16 U	0.16	4.0		0.93
06192	trans-1,3-Dichloropropene	10061-02-6	0.17 U	0.17	4.0		0.93
06192	Ethylbenzene	100-41-4	0.06 U	0.06	4.0		0.93
06192	Freon 113	76-13-1	0.11 U	0.11	4.0		0.93
06192	Freon 133a	75-88-7	0.50 U	0.50	5.0		0.93
06192	Hexachlorobutadiene	87-68-3	0.14 U	0.14	4.0		0.93
06192	2-Hexanone	591-78-6	1.6 U	1.6	8.1		0.93
06192	Isopropylbenzene	98-82-8	0.06 U	0.06	4.0		0.93
06192	p-Isopropyltoluene	99-87-6	0.11 U	0.11	4.0		0.93
06192	Methyl Tertiary Butyl Ether	1634-04-4	0.21 U	0.21	4.0		0.93
06192	4-Methyl-2-pentanone	108-10-1	0.39 U	0.39	8.1		0.93
06192	Methylene Chloride	75-09-2	1.0 J	0.24	4.0		0.93
06192	n-Propylbenzene	103-65-1	0.07 U	0.07	4.0		0.93

\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-011-SA5C-SB-9.0-10.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-011-SA5C-SB-9.0-10.0

**LLI Sample #** SW 6162942  
**LLI Group #** 1225039  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 09:45

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3502 SDG#: DE035-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS Volatiles SW-846 8260B</b>							
06192	Styrene	100-42-5	0.10 U	0.10	4.0		0.93
06192	1,1,1,2-Tetrachloroethane	630-20-6	0.11 U	0.11	4.0		0.93
06192	1,1,2,2-Tetrachloroethane	79-34-5	0.23 U	0.23	4.0		0.93
06192	Tetrachloroethene	127-18-4	0.20 U	0.20	4.0		0.93
06192	Toluene	108-88-3	0.09 J	0.08	4.0		0.93
06192	1,2,3-Trichlorobenzene	87-61-6	0.14 U	0.14	4.0		0.93
06192	1,2,4-Trichlorobenzene	120-82-1	0.18 U	0.18	4.0		0.93
06192	1,1,1-Trichloroethane	71-55-6	0.20 U	0.20	4.0		0.93
06192	1,1,2-Trichloroethane	79-00-5	0.27 U	0.27	4.0		0.93
06192	Trichloroethene	79-01-6	0.15 U	0.15	4.0		0.93
06192	Trichlorofluoromethane	75-69-4	0.29 U	0.29	4.0		0.93
06192	1,2,3-Trichloropropane	96-18-4	0.33 U	0.33	4.0		0.93
06192	1,2,4-Trimethylbenzene	95-63-6	0.40 U	0.40	4.0		0.93
06192	1,3,5-Trimethylbenzene	108-67-8	0.10 U	0.10	4.0		0.93
06192	Vinyl Chloride	75-01-4	0.20 U	0.20	4.0		0.93
06192	m+p-Xylene	179601-23-1	0.17 U	0.17	4.0		0.93
06192	o-Xylene	95-47-6	0.17 U	0.17	4.0		0.93
<b>GC/MS Volatiles SW-846 8260B SIM</b>							
10326	1,4-Dioxane	123-91-1	4.9 U	4.9	15		22.52
<b>GC/MS Semivolatiles EPA 1625C</b>							
11622	N-Nitrosodimethylamine	62-75-9	18.0 U	18.0	36.1		1
<b>GC/MS Semivolatiles SW-846 8270C</b>							
04688	Aniline	62-53-3	180	U 180	540		1
04688	Benzidine	92-87-5	1,300	U 1,300	3,600		1
04688	Benzoic acid	65-85-0	180	U 180	540		1
04688	Benzyl alcohol	100-51-6	180	U 180	540		1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180		1
04688	Carbazole	86-74-8	18	U 18	180		1
04688	4-Chloro-3-methylphenol	59-50-7	36	U 36	180		1
04688	4-Chloroaniline	106-47-8	72	U 72	180		1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180		1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180		1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180		1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180		1
04688	2-Chlorophenol	95-57-8	18	U 18	180		1
04688	4-Chlorophenyl-phenylether	7005-72-3	36	U 36	180		1
04688	Dibenzofuran	132-64-9	18	U 18	180		1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180		1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180		1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180		1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	360		1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180		1
04688	2,4-Dimethylphenol	105-67-9	36	U 36	180		1
04688	3,5-Dimethylphenol	108-68-9	36	U 36	180		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	540		1
04688	2,4-Dinitrophenol	51-28-5	720	U 720	2,200		1

\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-011-SA5C-SB-9.0-10.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-011-SA5C-SB-9.0-10.0

**LLI Sample #** SW 6162942  
**LLI Group #** 1225039  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 09:45

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3502 SDG#: DE035-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04688	2,4-Dinitrotoluene	121-14-2	36	U 36	180		1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180		1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180		1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	23	J 18	360		1
04688	Hexachlorobenzene	118-74-1	18	U 18	180		1
04688	Hexachlorobutadiene	87-68-3	72	U 72	180		1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	540		1
04688	Hexachloroethane	67-72-1	18	U 18	180		1
04688	Isophorone	78-59-1	18	U 18	180		1
04688	2-Methylphenol	95-48-7	36	U 36	180		1
04688	4-Methylphenol	106-44-5	36	U 36	180		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	18	U 18	180		1
04688	3-Nitroaniline	99-09-2	36	U 36	180		1
04688	4-Nitroaniline	100-01-6	72	U 72	180		1
04688	Nitrobenzene	98-95-3	18	U 18	180		1
04688	2-Nitrophenol	88-75-5	18	U 18	180		1
04688	4-Nitrophenol	100-02-7	180	U 180	540		1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180		1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	180	U 180	540		1
04688	Phenol	108-95-2	18	U 18	180		1
04688	1,2,4-Trichlorobenzene	120-82-1	18	U 18	180		1
04688	2,4,5-Trichlorophenol	95-95-4	36	U 36	180		1
04688	2,4,6-Trichlorophenol	88-06-2	36	U 36	180		1
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C SIM</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10138	Acenaphthene	83-32-9	0.72	U 0.72	1.8		1
10138	Acenaphthylene	208-96-8	0.36	U 0.36	1.8		1
10138	Anthracene	120-12-7	0.36	U 0.36	1.8		1
10138	Benzo(a)anthracene	56-55-3	0.72	U 0.72	1.8		1
10138	Benzo(a)pyrene	50-32-8	0.72	U 0.72	1.8		1
10138	Benzo(b)fluoranthene	205-99-2	0.81	J 0.72	1.8		1
10138	Benzo(g,h,i)perylene	191-24-2	0.72	U 0.72	1.8		1
10138	Benzo(k)fluoranthene	207-08-9	0.72	U 0.72	1.8		1
10138	Butylbenzylphthalate	85-68-7	6.5	U 6.5	19		1
10138	Di-n-butylphthalate	84-74-2	6.5	U 6.5	19		1
10138	Chrysene	218-01-9	0.60	J 0.36	1.8		1
10138	Dibenz(a,h)anthracene	53-70-3	0.72	U 0.72	1.8		1
10138	Diethylphthalate	84-66-2	6.5	U 6.5	19		1
10138	Dimethylphthalate	131-11-3	6.5	U 6.5	19		1
10138	Fluoranthene	206-44-0	0.74	J 0.72	1.8		1
10138	Fluorene	86-73-7	0.72	U 0.72	1.8		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.72	U 0.72	1.8		1

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**Sample Description:** SL-011-SA5C-SB-9.0-10.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-011-SA5C-SB-9.0-10.0

**LLI Sample #** SW 6162942  
**LLI Group #** 1225039  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 09:45

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3502 SDG#: DE035-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS Semivolatiles SW-846 8270C SIM</b>							
10138	1-Methylnaphthalene	90-12-0	0.72 U	0.72	1.8	ug/kg	1
10138	2-Methylnaphthalene	91-57-6	0.72 U	0.72	1.8	ug/kg	1
10138	Naphthalene	91-20-3	0.78 J	0.72	1.8	ug/kg	1
10138	N-Nitrosodimethylamine	62-75-9	0.72 U	0.72	1.8	ug/kg	1
10138	Di-n-octylphthalate	117-84-0	6.5 U	6.5	19	ug/kg	1
10138	Phenanthrene	85-01-8	0.72 U	0.72	1.8	ug/kg	1
10138	Pyrene	129-00-0	0.72 U	0.72	1.8	ug/kg	1
<b>GC Volatiles TPH GRO SW-846 8015B mod</b>							
05551	9a TPH by EPA 8015B Gas C5-C12	n.a.	0.2 U	0.2	1	mg/kg	23.02
<b>Explosives SW-846 8330A</b>							
10132	4-Amino-2,6-Dinitrotoluene	19406-51-0	81 U	81	160	1000000	1
10132	2-Amino-4,6-Dinitrotoluene	35572-78-2	54 U	54	160	1000000	1
10132	2,6-Diamino-4-nitrotoluene	59229-75-3	110 U	110	320	1000000	1
10132	2,4-Diamino-6-nitrotoluene	6629-29-4	110 U	110	320	1000000	1
10132	1,3-Dinitrobenzene	99-65-0	54 U	54	160	1000000	1
10132	2,4-Dinitrotoluene	121-14-2	54 U	54	160	1000000	1
10132	2,6-Dinitrotoluene	606-20-2	54 U	54	160	1000000	1
10132	HMX	2691-41-0	140 U	140	410	1000000	1
10132	Nitrobenzene	98-95-3	54 U	54	160	1000000	1
10132	Nitroglycerin	55-63-0	1,100 U	1,100	3,200	1000000	1
10132	2-Nitrotoluene	88-72-2	110 U	110	160	1000000	1
10132	3-Nitrotoluene	99-08-1	140 U	140	160	1000000	1
10132	4-Nitrotoluene	99-99-0	110 U	110	160	1000000	1
10132	PETN	78-11-5	1,100 U	1,100	3,200	1000000	1
10132	RDX	121-82-4	68 U	68	160	1000000	1
10132	Tetryl	479-45-8	83 U	83	160	1000000	1
10132	1,3,5-Trinitrobenzene	99-35-4	54 U	54	160	1000000	1
10132	2,4,6-Trinitrotoluene	118-96-7	54 U	54	160	1000000	1

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 SSFL Area IV Collocated Soil Sampling  
 SL-011-SA5C-SB-9.0-10.0

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D3502 SDG#: DE035-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>HPLC Organics</b>								
		<b>SW-846 8315A</b>	<b>ug/kg</b>		<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04173	17a Formaldehyde by	8315A 50-00-0	650 U		650	1,600		1
<b>Pesticides/PCBs</b>								
		<b>SW-846 8082</b>	<b>ug/kg</b>		<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10225	Aroclor 5432	63496-31-1	1.1 U		1.1	3.6		1
10225	Aroclor 5442	12642-23-8	1.1 U		1.1	3.6		1
10225	Aroclor 5460	11126-42-4	1.1 U		1.1	3.6		1
10225	PCB-1016	12674-11-2	0.36 U		0.36	1.8		1
10225	PCB-1221	11104-28-2	0.54 U		0.54	1.8		1
10225	PCB-1232	11141-16-5	0.56 U		0.56	1.8		1
10225	PCB-1242	53469-21-9	0.54 U		0.54	1.8		1
10225	PCB-1248	12672-29-6	0.36 U		0.36	1.8		1
10225	PCB-1254	11097-69-1	2.1		0.36	1.8		1
10225	PCB-1260	11096-82-5	0.48 J		0.36	1.8		1
10225	PCB-1262	37324-23-5	0.36 U		0.36	1.8		1
10225	PCB-1268	11100-14-4	0.36 U		0.36	1.8		1
The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.								
<b>GC Extractable TPH</b>								
		<b>SW-846 8015B modified</b>	<b>mg/kg</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
10199	EFH (C12-C14)	n.a.	0.43 U		0.43	1.3		1
10199	EFH (C15-C20)	n.a.	0.43 U		0.43	1.3		1
10199	EFH (C21-C30)	n.a.	8.0		0.43	1.3		1
10199	EFH (C30 - C40)	n.a.	15		0.43	1.3		1
10199	EFH (C8-C11)	n.a.	0.43 U		0.43	1.3		1
<b>GC Miscellaneous</b>								
		<b>SW-846 8015B</b>	<b>ug/kg</b>		<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10501	Ethanol	64-17-5	200 J		110	540		1
10501	Isopropanol	67-63-0	110 U		110	540		1
10501	Methanol	67-56-1	110 U		110	540		1
<b>GC Miscellaneous</b>								
		<b>SW-846 8015B modified</b>	<b>mg/kg</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
08283	Diethylene glycol	111-46-6	5.4 U		5.4	14		1
08283	Ethylene glycol	107-21-1	5.4 U		5.4	14		1
08283	Propylene glycol	57-55-6	5.4 U		5.4	14		1
<b>Terphenyls</b>								
		<b>SW-846 8015B</b>	<b>mg/kg</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
10318	m-Terphenyl	92-06-8	1.6 U		1.6	3.8		1
10318	o-Terphenyl	84-15-1	1.6 U		1.6	3.8		1
10318	p-Terphenyl	92-94-4	1.6 U		1.6	3.8		1
<b>Metals</b>								
		<b>SW-846 6010B</b>	<b>mg/kg</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
01643	Aluminum	7429-90-5	11,400		5.23	20.8		1
07914	Boron	7440-42-8	6.02		0.926	5.20		1
01650	Calcium	7440-70-2	3,630		6.38	20.8		1
01654	Iron	7439-89-6	18,700		4.90	20.8		1

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**Sample Description:** SL-011-SA5C-SB-9.0-10.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-011-SA5C-SB-9.0-10.0

**LLI Sample #** SW 6162942  
**LLI Group #** 1225039  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 09:45

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 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3502 SDG#: DE035-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Metals</b>							
	<b>SW-846 6010B</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
01656	Lithium	7439-93-2	19.0	0.23	2.1		1
01657	Magnesium	7439-95-4	3,730	2.64	10.4		1
06958	Manganese	7439-96-5	251	0.0812	0.520		1
10145	Phosphorus	7723-14-0	376	0.583	10.4		1
01662	Potassium	7440-09-7	2,630	18.7	52.0		1
01667	Sodium	7440-23-5	173	38.8	104		1
07968	Strontium	7440-24-6	18.1	0.0645	0.520		1
06969	Tin	7440-31-5	2.21 J	1.04	10.4		1
06970	Titanium	7440-32-6	1,120	0.411	1.08		1
10146	Zirconium	7440-67-7	0.874 U	0.874	5.20		1
	<b>SW-846 6020</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
06124	Antimony	7440-36-0	0.122 J	0.0637	0.212		2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	4.44	0.0637	0.424		2
06126	Barium	7440-39-3	104	0.115	0.424		2
06127	Beryllium	7440-41-7	0.465	0.0170	0.106		2
06128	Cadmium	7440-43-9	0.125	0.0382	0.106		2
06131	Chromium	7440-47-3	14.7	0.127	0.424		2
06132	Cobalt	7440-48-4	5.78	0.0212	0.106		2
06133	Copper	7440-50-8	8.60	0.0700	0.424		2
06135	Lead	7439-92-1	5.62	0.0110	0.212		2
06138	Molybdenum	7439-98-7	0.520	0.0531	0.106		2
06139	Nickel	7440-02-0	9.10	0.106	0.424		2
06141	Selenium	7782-49-2	0.132 J	0.0424	0.424		2
06142	Silver	7440-22-4	0.0214 J	0.0127	0.106		2
06145	Thallium	7440-28-0	0.288	0.0318	0.106		2
06148	Vanadium	7440-62-2	39.0	0.0233	0.106		2
06149	Zinc	7440-66-6	70.2	0.594	3.18		2
	<b>SW-846 7471A</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
00159	Mercury	7439-97-6	0.0029 U	0.0029	0.101		1
<b>Wet Chemistry</b>							
	<b>EPA 300.0</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	3.5	0.87	1.1		1
07336	11a Anions by 300.0 - Nitrate	14797-55-8	1.1 J	0.87	1.6		1
	<b>EPA 314.0</b>		<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.7 U	9.7	32.5		1
	<b>SW-846 7199</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
05892	3a Cr VI by EPA 7199	18540-29-9	1.3	0.22	1.1		1
	<b>SW-846 9012B</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
05895	21a Cyanide by 9012B	57-12-5	0.19 U	0.19	0.53		1

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 SSFL Area IV Collocated Soil Sampling  
 SL-011-SA5C-SB-9.0-10.0

**LLI Sample #** SW 6162942  
**LLI Group #** 1225039  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 09:45  
 Submitted: 12/11/2010 09:40  
 Reported: 01/13/2011 09:58

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
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 Chantilly VA 20151

D3502 SDG#: DE035-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Wet Chemistry</b>		<b>SW-846 9012B</b>	mg/kg	mg/kg	mg/kg	mg/kg	
The sample was analyzed outside of the 14 day holding time for Total Cyanide.							
		<b>ASTM D1498</b>	mV	mV	mV	mV	
01821	Oxidation Reduction Potential	n.a.	455	10.0	10.0		1
The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.							
		<b>SW-846 9045C modified</b>	Std. Units	Std. Units	Std. Units	Std. Units	
00394	22a pH by 9045C	n.a.	8.60	0.0100	0.0100		1
<b>Wet Chemistry</b>		<b>EPA 160.3 modified</b>	%	%	%	%	
11624	28a Moisture Content by 160.3	n.a.	7.6	0.50	0.50		1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.							

### General Sample Comments

State of California Lab Certification No. 2501  
 The volatile analysis was performed on soil from SL-011-SA5C-SB-9.5.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06192	1a Volatile Organics EPA 8260B	SW-846 8260B	1	B103482AA	12/15/2010 00:58	Laura M Krieger	0.93
10326	14a 1,4-Dioxane by 8260B SIM	SW-846 8260B SIM	1	E103493AA	12/16/2010 00:29	Sara E Johnson	22.52
08390	GC/MS - HL Encore Prep	SW-846 5035	1	201034523272	12/11/2010 18:40	Christopher D Meeks	n.a.
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035	1	201034523272	12/11/2010 19:12	Christopher D Meeks	n.a.
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035	2	201034523272	12/11/2010 19:12	Christopher D Meeks	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035	1	201034523272	12/11/2010 18:40	Christopher D Meeks	n.a.
11622	19a NDMA by 1625C	EPA 1625C	1	10354SLC026	12/30/2010 22:13	Timothy J Trees	1
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10350SLB026	01/01/2011 01:35	Ryan P Byrne	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10349SLH026	12/22/2010 13:50	Mark A Clark	1
11630	NDMA Soil Microwave	SW-846 3546	1	10354SLC026	12/20/2010 14:45	Olivia I Santiago	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10349SLH026	12/16/2010 06:15	Joseph S Feister	1

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**SSFL Area IV Collocated Soil Sampling**  
**SL-011-SA5C-SB-9.0-10.0**

**LLI Sample # SW 6162942**  
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D3502 SDG#: DE035-02

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00381	BNA Soil Sonication	SW-846 3550B	1	10350SLB026	12/16/2010 17:30	Sally L Appleyard	1
05551	9a TPH by EPA 8015B Gas C5-C12	TPH GRO SW-846 8015B mod	1	10340B34B	12/14/2010 14:35	Elizabeth J Marin	23.02
06130	GC - 5 g HL Encore Prep	SW-846 5035	1	201034523272	12/11/2010 18:40	Christopher D Meeks	n.a.
10132	20a Energetics by 8330A	SW-846 8330A	1	103480012A	12/16/2010 23:03	Michele D Hamilton	1
04173	17a Formaldehyde by 8315A	SW-846 8315A	1	103480007A	12/16/2010 01:29	Michele D Hamilton	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	103500026A	12/22/2010 01:02	Lindsey K Lafferty	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	103500026A	12/17/2010 00:40	David V Hershey Jr	1
05876	Formaldehyde Solid Extraction	SW-846 8315A	1	103480007A	12/14/2010 15:00	Kelli M Barto	1
11137	Energetics Extraction	SW-846 8330	1	103480012A	12/14/2010 14:45	Wanda F Oswald	1
10199	9a TPH by EPA 8015B Oil/Diesel	SW-846 8015B modified	1	103570006A	12/27/2010 17:26	Heather E Williams	1
10501	25a Alcohols by 8015B	SW-846 8015B	1	103480003A	12/15/2010 18:22	Dustin A Underkoffler	1
08283	27a Glycols by 8015B	SW-846 8015B modified	1	103480019A	12/16/2010 16:57	Robert Brown	1
10318	26a Terphenyls by 8015B	SW-846 8015B	1	103550026A	12/23/2010 18:31	Heather E Williams	1
11238	EFH Extraction - Soils	SW-846 3550B	2	103570006A	12/23/2010 17:00	JoElla L Rice	1
10303	Terphenyls soil prep	SW-846 3550B	1	103550026A	12/22/2010 07:00	Kerrie A Freeburn	1
11551	Direct Inj. Solids Glycol Ext.	SW-846 8015B	1	103480019A	12/15/2010 12:00	Dustin A Underkoffler	1
00380	Direct Injection Solids Ext	SW-846 8015B	1	103480003A	12/15/2010 12:00	Dustin A Underkoffler	1
01643	Aluminum	SW-846 6010B	1	103495708006	12/17/2010 19:33	John P Hook	1
07914	Boron	SW-846 6010B	1	103495708006	12/17/2010 19:33	John P Hook	1
01650	Calcium	SW-846 6010B	1	103495708006	12/17/2010 19:33	John P Hook	1
01654	Iron	SW-846 6010B	1	103495708006	12/17/2010 19:33	John P Hook	1
01656	Lithium	SW-846 6010B	1	103495708006	12/22/2010 15:53	John P Hook	1
01657	Magnesium	SW-846 6010B	1	103495708006	12/17/2010 19:33	John P Hook	1
06958	Manganese	SW-846 6010B	1	103495708006	12/17/2010 19:33	John P Hook	1
10145	Phosphorus	SW-846 6010B	1	103495708006	12/17/2010 19:33	John P Hook	1
01662	Potassium	SW-846 6010B	1	103495708006	12/17/2010 19:33	John P Hook	1
01667	Sodium	SW-846 6010B	1	103495708006	12/17/2010 19:33	John P Hook	1
07968	Strontium	SW-846 6010B	1	103495708006	12/17/2010 19:33	John P Hook	1
06969	Tin	SW-846 6010B	1	103495708006	12/17/2010 19:33	John P Hook	1
06970	Titanium	SW-846 6010B	1	103555708001	12/22/2010 07:54	Joanne M Gates	1
10146	Zirconium	SW-846 6010B	1	103495708006	12/21/2010 07:55	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	103491026005A	12/23/2010 11:55	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103491026005A	12/23/2010 11:55	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103491026005D	12/23/2010 11:55	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103491026005A	12/23/2010 11:55	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103491026005A	12/23/2010 11:55	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103491026005A	12/23/2010 11:55	Choon Y Tian	2

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 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description: SL-011-SA5C-SB-9.0-10.0 Soil**  
**SSFL Area IV Collocated Soil Sampling**  
**SL-011-SA5C-SB-9.0-10.0**

**LLI Sample # SW 6162942**  
**LLI Group # 1225039**  
**Account # 13013**

**Project Name: SSFL Area IV Collocated Soil Sampling**

Collected: 12/10/2010 09:45

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3502 SDG#: DE035-02

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
06132	Cobalt	SW-846 6020	1	103491026005A	12/23/2010	11:55	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103491026005A	12/23/2010	11:55	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103491026005A	12/23/2010	11:55	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103491026005C	12/23/2010	11:55	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103491026005A	12/23/2010	11:55	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103491026005B	12/23/2010	11:55	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103491026005A	12/23/2010	11:55	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103491026005A	12/23/2010	11:55	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103491026005A	12/23/2010	11:55	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	103491026005A	12/23/2010	11:55	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	103495711005	12/16/2010	06:35	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	103495708006	12/15/2010	20:01	Annamaria Stipkovits	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	103555708001	12/21/2010	12:28	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103491026005	12/15/2010	20:03	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	103495711005	12/15/2010	22:15	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10362362201A	12/30/2010	01:02	Ashley M Adams	1
07336	11a Anions by 300.0 - Nitrate	EPA 300.0	1	10362362201A	12/30/2010	01:02	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10357357201B	12/28/2010	07:04	Ashley M Adams	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	10358243201A	12/29/2010	10:00	Ashley M Adams	1
05895	21a Cyanide by 9012B	SW-846 9012B	1	10361102201A	12/27/2010	18:35	Joseph E McKenzie	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10362362201A	12/28/2010	11:00	Erik J Frederiksen	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10357357201B	12/23/2010	19:30	Carolyn M Mastropietro	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	10361102201A	12/27/2010	08:55	Nancy J Shoop	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10348182103A	12/14/2010	13:00	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10348039403A	12/14/2010	13:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10358243201A	12/24/2010	07:00	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	1	10357162401B	12/23/2010	21:06	Scott W Freisher	1

\*-This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-288-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-288-SA5B-SS-0.0-0.5

LLI Sample # SW 6162943  
 LLI Group # 1225039  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 09:40

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3503 SDG#: DE035-03BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04688	Aniline	62-53-3	170	U 170	520		1
04688	Benzidine	92-87-5	1,200	U 1,200	3,500		1
04688	Benzoic acid	65-85-0	170	U 170	520		1
04688	Benzyl alcohol	100-51-6	170	U 170	520		1
04688	4-Bromophenyl-phenylether	101-55-3	17	U 17	170		1
04688	Di-n-butylphthalate	84-74-2	17	U 17	170		1
04688	Carbazole	86-74-8	17	U 17	170		1
04688	4-Chloro-3-methylphenol	59-50-7	35	U 35	170		1
04688	4-Chloroaniline	106-47-8	70	U 70	170		1
04688	bis(2-Chloroethoxy)methane	111-91-1	17	U 17	170		1
04688	bis(2-Chloroethyl)ether	111-44-4	17	U 17	170		1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	17	U 17	170		1
04688	2-Chloronaphthalene	91-58-7	17	U 17	170		1
04688	2-Chlorophenol	95-57-8	17	U 17	170		1
04688	4-Chlorophenyl-phenylether	7005-72-3	35	U 35	170		1
04688	Dibenzofuran	132-64-9	17	U 17	170		1
04688	1,2-Dichlorobenzene	95-50-1	17	U 17	170		1
04688	1,3-Dichlorobenzene	541-73-1	17	U 17	170		1
04688	1,4-Dichlorobenzene	106-46-7	17	U 17	170		1
04688	3,3'-Dichlorobenzidine	91-94-1	100	U 100	350		1
04688	2,4-Dichlorophenol	120-83-2	17	U 17	170		1
04688	2,4-Dimethylphenol	105-67-9	35	U 35	170		1
04688	3,5-Dimethylphenol	108-68-9	35	U 35	170		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	170	U 170	520		1
04688	2,4-Dinitrophenol	51-28-5	700	U 700	2,100		1
04688	2,4-Dinitrotoluene	121-14-2	35	U 35	170		1
04688	2,6-Dinitrotoluene	606-20-2	17	U 17	170		1
04688	1,2-Diphenylhydrazine	122-66-7	17	U 17	170		1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	17	U 17	350		1
04688	Hexachlorobenzene	118-74-1	17	U 17	170		1
04688	Hexachlorobutadiene	87-68-3	70	U 70	170		1
04688	Hexachlorocyclopentadiene	77-47-4	170	U 170	520		1
04688	Hexachloroethane	67-72-1	17	U 17	170		1
04688	Isophorone	78-59-1	17	U 17	170		1
04688	2-Methylphenol	95-48-7	35	U 35	170		1
04688	4-Methylphenol	106-44-5	35	U 35	170		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	17	U 17	170		1
04688	3-Nitroaniline	99-09-2	35	U 35	170		1
04688	4-Nitroaniline	100-01-6	70	U 70	170		1
04688	Nitrobenzene	98-95-3	17	U 17	170		1
04688	2-Nitrophenol	88-75-5	17	U 17	170		1
04688	4-Nitrophenol	100-02-7	170	U 170	520		1
04688	N-Nitroso-di-n-propylamine	621-64-7	17	U 17	170		1
04688	N-Nitrosodiphenylamine	86-30-6	17	U 17	170		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						

\*—This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-288-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-288-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162943  
**LLI Group #** 1225039  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 09:40

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3503 SDG#: DE035-03BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04688	Pentachlorophenol	87-86-5	170	U 170	520		1
04688	Phenol	108-95-2	17	U 17	170		1
04688	1,2,4-Trichlorobenzene	120-82-1	17	U 17	170		1
04688	2,4,5-Trichlorophenol	95-95-4	35	U 35	170		1
04688	2,4,6-Trichlorophenol	88-06-2	35	U 35	170		1
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C SIM</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10138	Acenaphthene	83-32-9	0.70	U 0.70	1.7		1
10138	Acenaphthylene	208-96-8	0.35	U 0.35	1.7		1
10138	Anthracene	120-12-7	0.84	J 0.35	1.7		1
10138	Benzo(a)anthracene	56-55-3	1.0	J 0.70	1.7		1
10138	Benzo(a)pyrene	50-32-8	1.5	J 0.70	1.7		1
10138	Benzo(b)fluoranthene	205-99-2	4.1	J 0.70	1.7		1
10138	Benzo(g,h,i)perylene	191-24-2	1.1	J 0.70	1.7		1
10138	Benzo(k)fluoranthene	207-08-9	1.6	J 0.70	1.7		1
10138	Butylbenzylphthalate	85-68-7	6.3	U 6.3	19		1
10138	Chrysene	218-01-9	2.6	J 0.35	1.7		1
10138	Dibenz(a,h)anthracene	53-70-3	0.70	U 0.70	1.7		1
10138	Diethylphthalate	84-66-2	6.3	U 6.3	19		1
10138	Dimethylphthalate	131-11-3	6.3	U 6.3	19		1
10138	Fluoranthene	206-44-0	2.8	J 0.70	1.7		1
10138	Fluorene	86-73-7	0.70	U 0.70	1.7		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.99	J 0.70	1.7		1
10138	1-Methylnaphthalene	90-12-0	0.70	U 0.70	1.7		1
10138	2-Methylnaphthalene	91-57-6	0.70	U 0.70	1.7		1
10138	Naphthalene	91-20-3	0.70	U 0.70	1.7		1
10138	N-Nitrosodimethylamine	62-75-9	0.70	U 0.70	1.7		1
10138	Di-n-octylphthalate	117-84-0	6.3	U 6.3	19		1
10138	Phenanthrene	85-01-8	1.6	J 0.70	1.7		1
10138	Pyrene	129-00-0	2.2	J 0.70	1.7		1
<b>Herbicides</b>	<b>SW-846 8151A</b>		<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10401	2,4-D	94-75-7	1.3	U 1.3	3.8		1
10401	Dalapon	75-99-0	4.6	U 4.6	9.4		1
10401	2,4-DB	94-82-6	0.65	U 0.65	1.8		1
10401	Dicamba	1918-00-9	0.42	U 0.42	1.3		1
10401	Dinoseb	88-85-7	0.84	U 0.84	2.5		1
10401	2,4-DP (Dichlorprop)	120-36-5	0.84	U 0.84	1.8		1
10401	MCPA	94-74-6	290	U 290	290		1
10401	MCPP (Mecoprop)	93-65-2	78	U 78	260		1
10401	2,4,5-T	93-76-5	0.086	U 0.086	0.18		1
10401	2,4,5-TP	93-72-1	0.078	U 0.078	0.18		1

The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported.

Due to interfering peaks on the chromatogram, the values reported represent the lowest reporting limits attainable.

Despite numerous cleanup methods, our usual reporting limits were not

\*=This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-288-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-288-SA5B-SS-0.0-0.5

LLI Sample # SW 6162943  
 LLI Group # 1225039  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 09:40

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3503 SDG#: DE035-03BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
attained.							
<b>Pesticides/PCBs</b>		<b>SW-846 8081A</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
01363	Aldrin	309-00-2	0.069 U	0.069	0.17		1
01363	Alpha BHC	319-84-6	0.036 U	0.036	0.17		1
01363	Beta BHC	319-85-7	0.063 U	0.063	0.17		1
01363	Gamma BHC - Lindane	58-89-9	0.036 U	0.036	0.17		1
01363	Chlordane	57-74-9	0.84 U	0.84	3.6		1
01363	p,p-DDD	72-54-8	0.069 U	0.069	0.36		1
01363	p,p-DDE	72-55-9	0.069 U	0.069	0.36		1
01363	p,p-DDT	50-29-3	0.13 U	0.13	0.36		1
01363	Delta BHC	319-86-8	0.038 U	0.038	0.17		1
01363	Dieldrin	60-57-1	0.069 U	0.069	0.36		1
01363	Endosulfan I	959-98-8	0.046 U	0.046	0.17		1
01363	Endosulfan II	33213-65-9	0.069 U	0.069	0.36		1
01363	Endosulfan Sulfate	1031-07-8	0.086 U	0.086	0.36		1
01363	Endrin	72-20-8	0.069 U	0.069	0.36		1
01363	Endrin Aldehyde	7421-93-4	0.084 U	0.084	0.36		1
01363	Endrin Ketone	53494-70-5	0.069 U	0.069	0.36		1
01363	Heptachlor	76-44-8	0.063 U	0.063	0.17		1
01363	Heptachlor Epoxide	1024-57-3	0.036 U	0.036	0.17		1
01363	Methoxychlor	72-43-5	0.36 U	0.36	1.7		1
01363	Mirex	2385-85-5	0.24 U	0.24	0.36		1
01363	Toxaphene	8001-35-2	2.3 U	2.3	6.9		1

Various analytes in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported.

Due to interfering peaks on the chromatogram from the presence of PCBs, the values reported represent the lowest reporting limits attainable. Despite numerous cleanup methods, our usual reporting limits were not attained.

<b>Pesticides/PCBs</b>		<b>SW-846 8082</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.4	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.4	1
10225	Aroclor 5460	11126-42-4	2.7 J	1.0	3.4	1
10225	PCB-1016	12674-11-2	0.34 U	0.34	1.8	1
10225	PCB-1221	11104-28-2	0.52 U	0.52	1.8	1
10225	PCB-1232	11141-16-5	0.54 U	0.54	1.8	1
10225	PCB-1242	53469-21-9	0.52 U	0.52	1.8	1
10225	PCB-1248	12672-29-6	0.34 U	0.34	1.8	1
10225	PCB-1254	11097-69-1	1.2 J	0.34	1.8	1
10225	PCB-1260	11096-82-5	3.8	0.34	1.8	1
10225	PCB-1262	37324-23-5	0.34 U	0.34	1.8	1
10225	PCB-1268	11100-14-4	0.34 U	0.34	1.8	1

The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.

The surrogate data is outside the QC limits due to unresolvable matrix problems evident in the sample chromatogram.

<b>Metals</b>		<b>SW-846 6010B</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>
01643	Aluminum	7429-90-5	3,760	5.10	20.3	1

\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-288-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-288-SA5B-SS-0.0-0.5

LLI Sample # SW 6162943  
 LLI Group # 1225039  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 09:40

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3503 SDG#: DE035-03BKG

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Metals</b>								
		<b>SW-846 6010B</b>	<b>mg/kg</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
07914	Boron	7440-42-8	3.02	J	0.903	5.07		1
01650	Calcium	7440-70-2	7,300		6.22	20.3		1
01654	Iron	7439-89-6	5,330		4.78	20.3		1
01656	Lithium	7439-93-2	3.2		0.22	2.0		1
01657	Magnesium	7439-95-4	1,030		2.58	10.1		1
06958	Manganese	7439-96-5	104		0.0791	0.507		1
10145	Phosphorus	7723-14-0	320		0.568	10.1		1
01662	Potassium	7440-09-7	595		18.3	50.7		1
01667	Sodium	7440-23-5	51.4	J	37.8	101		1
07968	Strontium	7440-24-6	14.8		0.0629	0.507		1
06969	Tin	7440-31-5	1.85	J	1.01	10.1		1
06970	Titanium	7440-32-6	310		0.378	0.995		1
10146	Zirconium	7440-67-7	2.52	J	0.852	5.07		1
		<b>SW-846 6020</b>	<b>mg/kg</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
06124	Antimony	7440-36-0	0.366		0.0615	0.205		2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.							
06125	Arsenic	7440-38-2	3.22		0.0615	0.410		2
06126	Barium	7440-39-3	21.9		0.111	0.410		2
06127	Beryllium	7440-41-7	0.161		0.0164	0.102		2
06128	Cadmium	7440-43-9	0.0987	J	0.0369	0.102		2
06131	Chromium	7440-47-3	13.2		0.123	0.410		2
06132	Cobalt	7440-48-4	2.34		0.0205	0.102		2
06133	Copper	7440-50-8	3.30		0.0676	0.410		2
06135	Lead	7439-92-1	1.78		0.0107	0.205		2
06138	Molybdenum	7439-98-7	0.841		0.0512	0.102		2
06139	Nickel	7440-02-0	7.44		0.102	0.410		2
06141	Selenium	7782-49-2	0.193	J	0.0410	0.410		2
06142	Silver	7440-22-4	0.0123	U	0.0123	0.102		2
06145	Thallium	7440-28-0	0.0604	J	0.0307	0.102		2
06148	Vanadium	7440-62-2	15.3		0.0225	0.102		2
06149	Zinc	7440-66-6	13.0		0.574	3.07		2
		<b>SW-846 7471A</b>	<b>mg/kg</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
00159	Mercury	7439-97-6	0.0030	U	0.0030	0.103		1
<b>Wet Chemistry</b>								
		<b>EPA 300.0</b>	<b>mg/kg</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	0.84	U	0.84	1.0		1
		<b>EPA 314.0</b>	<b>ug/kg</b>		<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.4	U	9.4	31.3		1
		<b>SW-846 7199</b>	<b>mg/kg</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
05892	3a Cr VI by EPA 7199	18540-29-9	0.21	U	0.21	1.0		1

\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-288-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-288-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162943  
**LLI Group #** 1225039  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 09:40

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3503 SDG#: DE035-03BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Wet Chemistry ASTM D1498</b>							
01821	Oxidation Reduction Potential	n.a.	439	10.0	10.0	mV	1
The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.							
<b>SW-846 9045C modified</b>							
			Std. Units	Std. Units	Std. Units	Std. Units	
00394	22a pH by 9045C	n.a.	8.71	0.0100	0.0100		1
<b>Wet Chemistry EPA 160.3 modified</b>							
11624	28a Moisture Content by 160.3	n.a.	4.3	0.50	0.50	%	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.							

### General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10350SLB026	12/31/2010 23:28	Ryan P Byrne	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10349SLH026	12/22/2010 11:35	Mark A Clark	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10349SLH026	12/16/2010 06:15	Joseph S Feister	1
00381	BNA Soil Sonication	SW-846 3550B	1	10350SLB026	12/16/2010 17:30	Sally L Appleyard	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	103510024A	12/20/2010 19:44	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	103510029A	12/29/2010 18:37	Jamie L Brillhart	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	103500026A	12/22/2010 01:20	Lindsey K Lafferty	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	103510029A	12/20/2010 07:00	Joseph S Feister	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	103500026A	12/17/2010 00:40	David V Hershey Jr	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	103510024A	12/20/2010 01:40	David V Hershey Jr	1
01643	Aluminum	SW-846 6010B	1	103495708006	12/17/2010 19:02	John P Hook	1
07914	Boron	SW-846 6010B	1	103495708006	12/17/2010 19:02	John P Hook	1
01650	Calcium	SW-846 6010B	1	103495708006	12/17/2010 19:02	John P Hook	1
01654	Iron	SW-846 6010B	1	103495708006	12/17/2010 19:02	John P Hook	1
01656	Lithium	SW-846 6010B	1	103495708006	12/22/2010 15:25	John P Hook	1
01657	Magnesium	SW-846 6010B	1	103495708006	12/17/2010 19:02	John P Hook	1

\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-288-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-288-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162943  
**LLI Group #** 1225039  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 09:40

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3503 SDG#: DE035-03BKG

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06958	Manganese	SW-846 6010B	1	103495708006	12/17/2010 19:02	John P Hook	1
10145	Phosphorus	SW-846 6010B	1	103495708006	12/17/2010 19:02	John P Hook	1
01662	Potassium	SW-846 6010B	1	103495708006	12/17/2010 19:02	John P Hook	1
01667	Sodium	SW-846 6010B	1	103495708006	12/17/2010 19:02	John P Hook	1
07968	Strontium	SW-846 6010B	1	103495708006	12/17/2010 19:02	John P Hook	1
06969	Tin	SW-846 6010B	1	103495708006	12/17/2010 19:02	John P Hook	1
06970	Titanium	SW-846 6010B	1	103555708001	12/22/2010 07:29	Joanne M Gates	1
10146	Zirconium	SW-846 6010B	1	103495708006	12/21/2010 07:23	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	103491026005A	12/23/2010 11:33	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103491026005A	12/23/2010 11:33	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103491026005D	12/23/2010 11:33	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103491026005A	12/23/2010 11:33	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103491026005A	12/23/2010 11:33	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103491026005A	12/23/2010 11:33	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103491026005A	12/23/2010 11:33	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103491026005A	12/23/2010 11:33	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103491026005A	12/23/2010 11:33	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103491026005C	12/23/2010 11:33	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103491026005A	12/23/2010 11:33	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103491026005B	12/23/2010 11:33	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103491026005A	12/23/2010 11:33	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103491026005A	12/23/2010 11:33	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103491026005A	12/23/2010 11:33	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	103491026005A	12/23/2010 11:33	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	103495711005	12/16/2010 06:36	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	103495708006	12/15/2010 20:01	Annamaria Stipkovits	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	103555708001	12/21/2010 12:28	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103491026005	12/15/2010 20:03	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	103495711005	12/15/2010 22:15	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10362362201A	12/30/2010 00:05	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10357357201B	12/28/2010 02:39	Ashley M Adams	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	10358243201A	12/29/2010 10:06	Ashley M Adams	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10362362201A	12/28/2010 11:00	Erik J Frederiksen	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10357357201B	12/23/2010 19:30	Carolyn M Mastropietro	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10348182103B	12/14/2010 13:00	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10348039403B	12/14/2010 13:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10358243201A	12/24/2010 07:00	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	1	10349162402A	12/15/2010 09:36	William C Schwebel	1

\*—This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-288-SA5B-SS-0.0-0.5MS Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-288-SA5B-SS-0.0-0.5

LLI Sample # SW 6162944  
 LLI Group # 1225039  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 09:40

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3503 SDG#: DE035-03MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04688	Acenaphthene	83-32-9	1,700	17	170		1
04688	Acenaphthylene	208-96-8	1,700	17	170		1
04688	Aniline	62-53-3	960	170	520		1
04688	Anthracene	120-12-7	1,600	17	170		1
04688	Benzidine	92-87-5	3,400	J 1,200	3,500		1
04688	Benzo(a)anthracene	56-55-3	1,700	17	170		1
04688	Benzo(a)pyrene	50-32-8	1,500	17	170		1
04688	Benzo(b)fluoranthene	205-99-2	1,500	17	170		1
04688	Benzo(g,h,i)perylene	191-24-2	1,500	17	170		1
04688	Benzo(k)fluoranthene	207-08-9	1,600	17	170		1
04688	Benzoic acid	65-85-0	850	170	520		1
04688	Benzyl alcohol	100-51-6	1,800	170	520		1
04688	4-Bromophenyl-phenylether	101-55-3	1,500	17	170		1
04688	Butylbenzylphthalate	85-68-7	1,800	17	170		1
04688	Di-n-butylphthalate	84-74-2	1,700	17	170		1
04688	Carbazole	86-74-8	1,700	17	170		1
04688	4-Chloro-3-methylphenol	59-50-7	1,700	35	170		1
04688	4-Chloroaniline	106-47-8	950	70	170		1
04688	bis(2-Chloroethoxy)methane	111-91-1	1,600	17	170		1
04688	bis(2-Chloroethyl)ether	111-44-4	1,700	17	170		1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	1,700	17	170		1
04688	2-Chloronaphthalene	91-58-7	1,600	17	170		1
04688	2-Chlorophenol	95-57-8	1,700	17	170		1
04688	4-Chlorophenyl-phenylether	7005-72-3	1,600	35	170		1
04688	Chrysene	218-01-9	1,700	17	170		1
04688	Dibenz(a,h)anthracene	53-70-3	1,500	17	170		1
04688	Dibenzofuran	132-64-9	1,700	17	170		1
04688	1,2-Dichlorobenzene	95-50-1	1,600	17	170		1
04688	1,3-Dichlorobenzene	541-73-1	1,500	17	170		1
04688	1,4-Dichlorobenzene	106-46-7	1,500	17	170		1
04688	3,3'-Dichlorobenzidine	91-94-1	730	100	350		1
04688	2,4-Dichlorophenol	120-83-2	1,700	17	170		1
04688	Diethylphthalate	84-66-2	1,700	17	170		1
04688	2,4-Dimethylphenol	105-67-9	1,800	35	170		1
04688	3,5-Dimethylphenol	108-68-9	1,800	35	170		1
04688	Dimethylphthalate	131-11-3	1,700	17	170		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	1,300	170	520		1
04688	2,4-Dinitrophenol	51-28-5	2,000	J 700	2,100		1
04688	2,4-Dinitrotoluene	121-14-2	1,700	35	170		1
04688	2,6-Dinitrotoluene	606-20-2	1,700	17	170		1
04688	1,2-Diphenylhydrazine	122-66-7	1,700	17	170		1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	1,700	17	350		1
04688	Fluoranthene	206-44-0	1,700	17	170		1
04688	Fluorene	86-73-7	1,700	17	170		1
04688	Hexachlorobenzene	118-74-1	1,600	17	170		1
04688	Hexachlorobutadiene	87-68-3	1,400	70	170		1
04688	Hexachlorocyclopentadiene	77-47-4	2,500	170	520		1
04688	Hexachloroethane	67-72-1	1,500	17	170		1
04688	Indeno(1,2,3-cd)pyrene	193-39-5	1,500	17	170		1
04688	Isophorone	78-59-1	1,600	17	170		1

\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-288-SA5B-SS-0.0-0.5MS Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-288-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162944  
**LLI Group #** 1225039  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 09:40

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3503 SDG#: DE035-03MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04688	1-Methylnaphthalene	90-12-0	1,700	17	170		1
04688	2-Methylnaphthalene	91-57-6	1,500	17	170		1
04688	2-Methylphenol	95-48-7	1,800	35	170		1
04688	4-Methylphenol	106-44-5	1,700	35	170		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	Naphthalene	91-20-3	1,600	17	170		1
04688	2-Nitroaniline	88-74-4	1,700	17	170		1
04688	3-Nitroaniline	99-09-2	1,600	35	170		1
04688	4-Nitroaniline	100-01-6	1,300	70	170		1
04688	Nitrobenzene	98-95-3	1,600	17	170		1
04688	2-Nitrophenol	88-75-5	1,600	17	170		1
04688	4-Nitrophenol	100-02-7	1,600	170	520		1
04688	N-Nitrosodimethylamine	62-75-9	1,600	35	170		1
04688	N-Nitroso-di-n-propylamine	621-64-7	1,700	17	170		1
04688	N-Nitrosodiphenylamine	86-30-6	1,700	17	170		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Di-n-octylphthalate	117-84-0	1,700	17	170		1
04688	Pentachlorophenol	87-86-5	1,100	170	520		1
04688	Phenanthrene	85-01-8	1,700	17	170		1
04688	Phenol	108-95-2	1,700	17	170		1
04688	Pyrene	129-00-0	1,800	17	170		1
04688	1,2,4-Trichlorobenzene	120-82-1	1,500	17	170		1
04688	2,4,5-Trichlorophenol	95-95-4	1,600	35	170		1
04688	2,4,6-Trichlorophenol	88-06-2	1,600	35	170		1
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C SIM</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10138	Acenaphthene	83-32-9	33	0.70	1.7		1
10138	Acenaphthylene	208-96-8	34	0.35	1.7		1
10138	Anthracene	120-12-7	36	0.35	1.7		1
10138	Benzo(a)anthracene	56-55-3	36	0.70	1.7		1
10138	Benzo(a)pyrene	50-32-8	34	0.70	1.7		1
10138	Benzo(b)fluoranthene	205-99-2	40	0.70	1.7		1
10138	Benzo(g,h,i)perylene	191-24-2	25	0.70	1.7		1
10138	Benzo(k)fluoranthene	207-08-9	30	0.70	1.7		1
10138	Butylbenzylphthalate	85-68-7	39	6.3	19		1
10138	Di-n-butylphthalate	84-74-2	40	6.3	19		1
10138	Chrysene	218-01-9	34	0.35	1.7		1
10138	Dibenz(a,h)anthracene	53-70-3	29	0.70	1.7		1
10138	Diethylphthalate	84-66-2	39	6.3	19		1
10138	Dimethylphthalate	131-11-3	37	6.3	19		1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	97	6.3	19		1
10138	Fluoranthene	206-44-0	40	0.70	1.7		1
10138	Fluorene	86-73-7	35	0.70	1.7		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	29	0.70	1.7		1
10138	1-Methylnaphthalene	90-12-0	34	0.70	1.7		1

\*=This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-288-SA5B-SS-0.0-0.5MS Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-288-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162944  
**LLI Group #** 1225039  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 09:40

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3503 SDG#: DE035-03MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C SIM</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10138	2-Methylnaphthalene	91-57-6	31	0.70	1.7		1
10138	Naphthalene	91-20-3	32	0.70	1.7		1
10138	N-Nitrosodimethylamine	62-75-9	36	0.70	1.7		1
10138	Di-n-octylphthalate	117-84-0	37	6.3	19		1
10138	Phenanthrene	85-01-8	34	0.70	1.7		1
10138	Pyrene	129-00-0	33	0.70	1.7		1

The following compounds were detected in the method blank at the respective concentrations of:

di-n-butylphthalate 6.1 ug/kg

bis(2-ethylhexyl)phthalate 6.7 ug/kg

These blank values were not subtracted from the analytical results.

<b>Herbicides</b>		<b>SW-846 8151A</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>
10401	2,4-D	94-75-7	8.6	1.3	3.8	1
10401	Dalapon	75-99-0	17	4.6	9.4	1
10401	2,4-DB	94-82-6	10	0.65	1.8	1
10401	Dicamba	1918-00-9	0.95	J 0.42	1.3	1
10401	Dinoseb	88-85-7	1.5	J 0.84	2.5	1
10401	2,4-DP (Dichlorprop)	120-36-5	8.9	0.84	1.8	1
10401	MCPA	94-74-6	970	79	260	1
10401	MCPP (Mecoprop)	93-65-2	1,100	78	260	1
10401	2,4,5-T	93-76-5	0.75	0.086	0.18	1
10401	2,4,5-TP	93-72-1	0.70	0.078	0.18	1

The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported.

<b>Pesticides/PCBs</b>		<b>SW-846 8081A</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>
01363	Aldrin	309-00-2	0.25	0.069	0.18	1
01363	Alpha BHC	319-84-6	0.34	0.036	0.18	1
01363	Beta BHC	319-85-7	0.29	0.063	0.18	1
01363	Gamma BHC - Lindane	58-89-9	0.34	0.036	0.18	1
01363	Chlordane	57-74-9	0.84	U 0.84	3.6	1
01363	p,p-DDD	72-54-8	0.77	0.069	0.36	1
01363	p,p-DDE	72-55-9	0.59	0.069	0.36	1
01363	p,p-DDT	50-29-3	0.73	0.069	0.36	1
01363	Delta BHC	319-86-8	0.31	0.038	0.18	1
01363	Dieldrin	60-57-1	0.70	0.069	0.36	1
01363	Endosulfan I	959-98-8	0.26	0.046	0.18	1
01363	Endosulfan II	33213-65-9	0.46	0.069	0.36	1
01363	Endosulfan Sulfate	1031-07-8	0.56	0.069	0.36	1
01363	Endrin	72-20-8	0.71	0.069	0.36	1
01363	Endrin Aldehyde	7421-93-4	0.50	0.069	0.36	1
01363	Endrin Ketone	53494-70-5	0.53	0.069	0.36	1
01363	Heptachlor	76-44-8	0.41	0.063	0.18	1
01363	Heptachlor Epoxide	1024-57-3	0.26	0.036	0.18	1
01363	Methoxychlor	72-43-5	3.8	0.36	1.7	1
01363	Mirex	2385-85-5	0.069	U 0.069	0.36	1
01363	Toxaphene	8001-35-2	2.3	U 2.3	6.9	1

\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description: SL-288-SA5B-SS-0.0-0.5MS Soil**  
**SSFL Area IV Collocated Soil Sampling**  
**SL-288-SA5B-SS-0.0-0.5**

**LLI Sample # SW 6162944**  
**LLI Group # 1225039**  
**Account # 13013**

**Project Name: SSFL Area IV Collocated Soil Sampling**

Collected: 12/10/2010 09:40

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3503 SDG#: DE035-03MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Pesticides/PCBs</b>		<b>SW-846 8082</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.4		1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.4		1
10225	Aroclor 5460	11126-42-4	1.0 U	1.0	3.4		1
10225	PCB-1016	12674-11-2	17	0.34	1.8		1
10225	PCB-1221	11104-28-2	0.52 U	0.52	1.8		1
10225	PCB-1232	11141-16-5	0.54 U	0.54	1.8		1
10225	PCB-1242	53469-21-9	0.52 U	0.52	1.8		1
10225	PCB-1248	12672-29-6	0.34 U	0.34	1.8		1
10225	PCB-1254	11097-69-1	3.4	0.34	1.8		1
10225	PCB-1260	11096-82-5	18	0.34	1.8		1
10225	PCB-1262	37324-23-5	0.34 U	0.34	1.8		1
10225	PCB-1268	11100-14-4	0.34 U	0.34	1.8		1

The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.

<b>Metals</b>		<b>SW-846 6010B</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>
01643	Aluminum	7429-90-5	5,270	5.20	20.7	1
07914	Boron	7440-42-8	197	0.921	5.17	1
01650	Calcium	7440-70-2	10,600	6.34	20.7	1
01654	Iron	7439-89-6	5,440	4.87	20.7	1
01656	Lithium	7439-93-2	109	0.23	2.1	1
01657	Magnesium	7439-95-4	1,330	2.63	10.3	1
06958	Manganese	7439-96-5	188	0.0807	0.517	1
10145	Phosphorus	7723-14-0	509	0.579	10.3	1
01662	Potassium	7440-09-7	1,840	18.6	51.7	1
01667	Sodium	7440-23-5	1,140	38.6	103	1
07968	Strontium	7440-24-6	128	0.0641	0.517	1
06969	Tin	7440-31-5	415	1.03	10.3	1
06970	Titanium	7440-32-6	517	0.378	0.995	1
10146	Zirconium	7440-67-7	109	0.869	5.17	1
		<b>SW-846 6020</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>
06124	Antimony	7440-36-0	1.42	0.0621	0.207	2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	7.02	0.0621	0.414	2
06126	Barium	7440-39-3	41.0	0.112	0.414	2
06127	Beryllium	7440-41-7	1.22	0.0166	0.103	2
06128	Cadmium	7440-43-9	1.64	0.0372	0.103	2
06131	Chromium	7440-47-3	29.5	0.124	0.414	2
06132	Cobalt	7440-48-4	72.0	0.0207	0.103	2
06133	Copper	7440-50-8	17.5	0.0683	0.414	2
06135	Lead	7439-92-1	6.81	0.0108	0.207	2
06138	Molybdenum	7439-98-7	16.6	0.0517	0.103	2
06139	Nickel	7440-02-0	22.3	0.103	0.414	2
06141	Selenium	7782-49-2	2.98	0.0414	0.414	2
06142	Silver	7440-22-4	15.4	0.0124	0.103	2
06145	Thallium	7440-28-0	0.677	0.0310	0.103	2

\*—This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-288-SA5B-SS-0.0-0.5MS Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-288-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162944  
**LLI Group #** 1225039  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 09:40

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3503 SDG#: DE035-03MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Metals</b>							
		<b>SW-846 6020</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
06148	Vanadium	7440-62-2	32.7	0.0228	0.103		2
06149	Zinc	7440-66-6	31.5	0.579	3.10		2
		<b>SW-846 7471A</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
00159	Mercury	7439-97-6	0.155	0.0029	0.103		1
<b>Wet Chemistry</b>							
		<b>EPA 300.0</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	9.2	0.84	1.0		1
		<b>EPA 314.0</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10147	7a Perchlorate EPA 314.0	14797-73-0	510	9.4	31.3		1
		<b>SW-846 7199</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
05892	3a Cr VI by EPA 7199	18540-29-9	37.5	1.0	5.2		5
<b>Wet Chemistry</b>							
		<b>EPA 160.3 modified</b>	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>	
11625	28a Moisture Content by 160.3	n.a.	4.3	0.50	0.50		1

### General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10350SLB026	12/31/2010 23:53	Ryan P Byrne	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10349SLH026	12/22/2010 12:08	Mark A Clark	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10349SLH026	12/16/2010 06:15	Joseph S Feister	1
00381	BNA Soil Sonication	SW-846 3550B	1	10350SLB026	12/16/2010 17:30	Sally L Appleyard	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	103510024A	12/20/2010 20:11	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	103510029A	12/29/2010 18:52	Jamie L Brillhart	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	103500026A	12/22/2010 01:39	Lindsey K Lafferty	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	103510029A	12/20/2010 07:00	Joseph S Feister	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	103500026A	12/17/2010 00:40	David V Hershey Jr	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	103510024A	12/20/2010 01:40	David V Hershey Jr	1
01643	Aluminum	SW-846 6010B	1	103495708006	12/17/2010 19:12	John P Hook	1

\*-This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-288-SA5B-SS-0.0-0.5MS Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-288-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162944  
**LLI Group #** 1225039  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 09:40

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3503 SDG#: DE035-03MS

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07914	Boron	SW-846 6010B	1	103495708006	12/17/2010 19:12	John P Hook	1
01650	Calcium	SW-846 6010B	1	103495708006	12/17/2010 19:12	John P Hook	1
01654	Iron	SW-846 6010B	1	103495708006	12/17/2010 19:12	John P Hook	1
01656	Lithium	SW-846 6010B	1	103495708006	12/21/2010 07:33	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	103495708006	12/17/2010 19:12	John P Hook	1
06958	Manganese	SW-846 6010B	1	103495708006	12/17/2010 19:12	John P Hook	1
10145	Phosphorus	SW-846 6010B	1	103495708006	12/17/2010 19:12	John P Hook	1
01662	Potassium	SW-846 6010B	1	103495708006	12/17/2010 19:12	John P Hook	1
01667	Sodium	SW-846 6010B	1	103495708006	12/17/2010 19:12	John P Hook	1
07968	Strontium	SW-846 6010B	1	103495708006	12/17/2010 19:12	John P Hook	1
06969	Tin	SW-846 6010B	1	103495708006	12/17/2010 19:12	John P Hook	1
06970	Titanium	SW-846 6010B	1	103555708001	12/22/2010 07:39	Joanne M Gates	1
10146	Zirconium	SW-846 6010B	1	103495708006	12/21/2010 07:33	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	103491026005A	12/23/2010 11:42	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103491026005A	12/23/2010 11:42	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103491026005D	12/23/2010 11:42	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103491026005A	12/23/2010 11:42	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103491026005A	12/23/2010 11:42	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103491026005A	12/23/2010 11:42	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103491026005A	12/23/2010 11:42	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103491026005A	12/23/2010 11:42	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103491026005A	12/23/2010 11:42	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103491026005C	12/23/2010 11:42	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103491026005A	12/23/2010 11:42	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103491026005B	12/23/2010 11:42	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103491026005A	12/23/2010 11:42	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103491026005A	12/23/2010 11:42	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103491026005A	12/23/2010 11:42	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	103491026005A	12/23/2010 11:42	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	103495711005	12/16/2010 06:40	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	103495708006	12/15/2010 20:01	Annamaria Stipkovits	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	103555708001	12/21/2010 12:28	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103491026005	12/15/2010 20:03	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	103495711005	12/15/2010 22:15	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10362362201A	12/30/2010 00:33	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10357357201B	12/28/2010 03:28	Ashley M Adams	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	10358243201A	12/29/2010 11:57	Ashley M Adams	5
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10362362201A	12/28/2010 11:00	Erik J Frederiksen	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10357357201B	12/23/2010 19:30	Carolyn M Mastropietro	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10358243201A	12/24/2010 07:00	Daniel S Smith	1
11625	28a Moisture Content by 160.3	EPA 160.3 modified	1	10349162402A	12/15/2010 09:36	William C Schwebel	1

\*—This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-288-SA5B-SS-0.0-0.5MSD Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-288-SA5B-SS-0.0-0.5

LLI Sample # SW 6162945  
 LLI Group # 1225039  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 09:40

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3503 SDG#: DE035-03MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04688	Acenaphthene	83-32-9	1,600	17	170		1
04688	Acenaphthylene	208-96-8	1,700	17	170		1
04688	Aniline	62-53-3	1,300	170	520		1
04688	Anthracene	120-12-7	1,600	17	170		1
04688	Benzidine	92-87-5	4,000	1,200	3,500		1
04688	Benzo(a)anthracene	56-55-3	1,600	17	170		1
04688	Benzo(a)pyrene	50-32-8	1,500	17	170		1
04688	Benzo(b)fluoranthene	205-99-2	1,500	17	170		1
04688	Benzo(g,h,i)perylene	191-24-2	1,500	17	170		1
04688	Benzo(k)fluoranthene	207-08-9	1,500	17	170		1
04688	Benzoic acid	65-85-0	400	J 170	520		1
04688	Benzyl alcohol	100-51-6	1,700	170	520		1
04688	4-Bromophenyl-phenylether	101-55-3	1,500	17	170		1
04688	Butylbenzylphthalate	85-68-7	1,800	17	170		1
04688	Di-n-butylphthalate	84-74-2	1,700	17	170		1
04688	Carbazole	86-74-8	1,700	17	170		1
04688	4-Chloro-3-methylphenol	59-50-7	1,700	35	170		1
04688	4-Chloroaniline	106-47-8	1,200	70	170		1
04688	bis(2-Chloroethoxy)methane	111-91-1	1,600	17	170		1
04688	bis(2-Chloroethyl)ether	111-44-4	1,600	17	170		1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	1,700	17	170		1
04688	2-Chloronaphthalene	91-58-7	1,600	17	170		1
04688	2-Chlorophenol	95-57-8	1,700	17	170		1
04688	4-Chlorophenyl-phenylether	7005-72-3	1,600	35	170		1
04688	Chrysene	218-01-9	1,700	17	170		1
04688	Dibenz(a,h)anthracene	53-70-3	1,400	17	170		1
04688	Dibenzofuran	132-64-9	1,700	17	170		1
04688	1,2-Dichlorobenzene	95-50-1	1,500	17	170		1
04688	1,3-Dichlorobenzene	541-73-1	1,500	17	170		1
04688	1,4-Dichlorobenzene	106-46-7	1,600	17	170		1
04688	3,3'-Dichlorobenzidine	91-94-1	1,100	100	350		1
04688	2,4-Dichlorophenol	120-83-2	1,800	17	170		1
04688	Diethylphthalate	84-66-2	1,600	17	170		1
04688	2,4-Dimethylphenol	105-67-9	1,800	35	170		1
04688	3,5-Dimethylphenol	108-68-9	1,700	35	170		1
04688	Dimethylphthalate	131-11-3	1,600	17	170		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	1,300	170	520		1
04688	2,4-Dinitrophenol	51-28-5	2,000	J 700	2,100		1
04688	2,4-Dinitrotoluene	121-14-2	1,600	35	170		1
04688	2,6-Dinitrotoluene	606-20-2	1,700	17	170		1
04688	1,2-Diphenylhydrazine	122-66-7	1,700	17	170		1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	1,700	17	350		1
04688	Fluoranthene	206-44-0	1,700	17	170		1
04688	Fluorene	86-73-7	1,700	17	170		1
04688	Hexachlorobenzene	118-74-1	1,600	17	170		1
04688	Hexachlorobutadiene	87-68-3	1,500	70	170		1
04688	Hexachlorocyclopentadiene	77-47-4	2,200	170	520		1
04688	Hexachloroethane	67-72-1	1,500	17	170		1
04688	Indeno(1,2,3-cd)pyrene	193-39-5	1,400	17	170		1
04688	Isophorone	78-59-1	1,700	17	170		1

\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-288-SA5B-SS-0.0-0.5MSD Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-288-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162945  
**LLI Group #** 1225039  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 09:40

CDM Federal Programs Corp.

Submitted: 12/11/2010 09:40

14420 Albemarle Point Place

Reported: 01/13/2011 09:58

Suite 210

Chantilly VA 20151

D3503 SDG#: DE035-03MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04688	1-Methylnaphthalene	90-12-0	1,700	17	170		1
04688	2-Methylnaphthalene	91-57-6	1,500	17	170		1
04688	2-Methylphenol	95-48-7	1,800	35	170		1
04688	4-Methylphenol	106-44-5	1,700	35	170		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	Naphthalene	91-20-3	1,600	17	170		1
04688	2-Nitroaniline	88-74-4	1,600	17	170		1
04688	3-Nitroaniline	99-09-2	1,600	35	170		1
04688	4-Nitroaniline	100-01-6	1,300	70	170		1
04688	Nitrobenzene	98-95-3	1,600	17	170		1
04688	2-Nitrophenol	88-75-5	1,600	17	170		1
04688	4-Nitrophenol	100-02-7	1,500	170	520		1
04688	N-Nitrosodimethylamine	62-75-9	1,700	35	170		1
04688	N-Nitroso-di-n-propylamine	621-64-7	1,700	17	170		1
04688	N-Nitrosodiphenylamine	86-30-6	1,600	17	170		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Di-n-octylphthalate	117-84-0	1,700	17	170		1
04688	Pentachlorophenol	87-86-5	1,100	170	520		1
04688	Phenanthrene	85-01-8	1,600	17	170		1
04688	Phenol	108-95-2	1,600	17	170		1
04688	Pyrene	129-00-0	1,700	17	170		1
04688	1,2,4-Trichlorobenzene	120-82-1	1,600	17	170		1
04688	2,4,5-Trichlorophenol	95-95-4	1,600	35	170		1
04688	2,4,6-Trichlorophenol	88-06-2	1,600	35	170		1
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C SIM</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10138	Acenaphthene	83-32-9	33	0.70	1.7		1
10138	Acenaphthylene	208-96-8	34	0.35	1.7		1
10138	Anthracene	120-12-7	35	0.35	1.7		1
10138	Benzo(a)anthracene	56-55-3	35	0.70	1.7		1
10138	Benzo(a)pyrene	50-32-8	34	0.70	1.7		1
10138	Benzo(b)fluoranthene	205-99-2	40	0.70	1.7		1
10138	Benzo(g,h,i)perylene	191-24-2	26	0.70	1.7		1
10138	Benzo(k)fluoranthene	207-08-9	29	0.70	1.7		1
10138	Butylbenzylphthalate	85-68-7	39	6.3	19		1
10138	Di-n-butylphthalate	84-74-2	40	6.3	19		1
10138	Chrysene	218-01-9	34	0.35	1.7		1
10138	Dibenz(a,h)anthracene	53-70-3	29	0.70	1.7		1
10138	Diethylphthalate	84-66-2	40	6.3	19		1
10138	Dimethylphthalate	131-11-3	37	6.3	19		1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	44	6.3	19		1
10138	Fluoranthene	206-44-0	38	0.70	1.7		1
10138	Fluorene	86-73-7	35	0.70	1.7		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	28	0.70	1.7		1
10138	1-Methylnaphthalene	90-12-0	34	0.70	1.7		1

\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-288-SA5B-SS-0.0-0.5MSD Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-288-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162945  
**LLI Group #** 1225039  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 09:40

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3503 SDG#: DE035-03MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C SIM</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10138	2-Methylnaphthalene	91-57-6	30	0.70	1.7		1
10138	Naphthalene	91-20-3	32	0.70	1.7		1
10138	N-Nitrosodimethylamine	62-75-9	35	0.70	1.7		1
10138	Di-n-octylphthalate	117-84-0	37	6.3	19		1
10138	Phenanthrene	85-01-8	33	0.70	1.7		1
10138	Pyrene	129-00-0	33	0.70	1.7		1

The following compounds were detected in the method blank at the respective concentrations of:

di-n-butylphthalate 6.1 ug/kg

bis(2-ethylhexyl)phthalate 6.7 ug/kg

These blank values were not subtracted from the analytical results.

<b>Herbicides</b>		<b>SW-846 8151A</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>
10401	2,4-D	94-75-7	8.4	1.3	3.8	1
10401	Dalapon	75-99-0	19	4.6	9.4	1
10401	2,4-DB	94-82-6	10	0.65	1.8	1
10401	Dicamba	1918-00-9	0.98	J 0.42	1.3	1
10401	Dinoseb	88-85-7	1.7	J 0.84	2.5	1
10401	2,4-DP (Dichlorprop)	120-36-5	8.9	0.84	1.8	1
10401	MCPA	94-74-6	1,100	79	260	1
10401	MCPP (Mecoprop)	93-65-2	1,100	78	260	1
10401	2,4,5-T	93-76-5	0.82	0.086	0.18	1
10401	2,4,5-TP	93-72-1	0.72	0.078	0.18	1

The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported.

<b>Pesticides/PCBs</b>		<b>SW-846 8081A</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>
01363	Aldrin	309-00-2	0.28	0.069	0.18	1
01363	Alpha BHC	319-84-6	0.38	0.036	0.18	1
01363	Beta BHC	319-85-7	0.32	0.063	0.18	1
01363	Gamma BHC - Lindane	58-89-9	0.38	0.036	0.18	1
01363	Chlordane	57-74-9	0.84	U 0.84	3.6	1
01363	p,p-DDD	72-54-8	0.86	0.069	0.36	1
01363	p,p-DDE	72-55-9	0.66	0.069	0.36	1
01363	p,p-DDT	50-29-3	0.83	0.069	0.36	1
01363	Delta BHC	319-86-8	0.36	0.038	0.18	1
01363	Dieldrin	60-57-1	0.77	0.069	0.36	1
01363	Endosulfan I	959-98-8	0.28	0.046	0.18	1
01363	Endosulfan II	33213-65-9	0.50	0.069	0.36	1
01363	Endosulfan Sulfate	1031-07-8	0.62	0.069	0.36	1
01363	Endrin	72-20-8	0.79	0.069	0.36	1
01363	Endrin Aldehyde	7421-93-4	0.56	0.069	0.36	1
01363	Endrin Ketone	53494-70-5	0.55	0.069	0.36	1
01363	Heptachlor	76-44-8	0.47	0.063	0.18	1
01363	Heptachlor Epoxide	1024-57-3	0.29	0.036	0.18	1
01363	Methoxychlor	72-43-5	4.2	0.36	1.7	1
01363	Mirex	2385-85-5	0.069	U 0.069	0.36	1
01363	Toxaphene	8001-35-2	2.3	U 2.3	6.9	1

\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-288-SA5B-SS-0.0-0.5MSD Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-288-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162945  
**LLI Group #** 1225039  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 09:40

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3503 SDG#: DE035-03MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Pesticides/PCBs</b>		<b>SW-846 8082</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.4		1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.4		1
10225	Aroclor 5460	11126-42-4	1.0 U	1.0	3.4		1
10225	PCB-1016	12674-11-2	17	0.34	1.8		1
10225	PCB-1221	11104-28-2	0.52 U	0.52	1.8		1
10225	PCB-1232	11141-16-5	0.54 U	0.54	1.8		1
10225	PCB-1242	53469-21-9	0.52 U	0.52	1.8		1
10225	PCB-1248	12672-29-6	0.34 U	0.34	1.8		1
10225	PCB-1254	11097-69-1	3.7	0.34	1.8		1
10225	PCB-1260	11096-82-5	19	0.34	1.8		1
10225	PCB-1262	37324-23-5	0.34 U	0.34	1.8		1
10225	PCB-1268	11100-14-4	0.34 U	0.34	1.8		1

The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.

<b>Metals</b>		<b>SW-846 6010B</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>
01643	Aluminum	7429-90-5	5,030	5.20	20.7	1
07914	Boron	7440-42-8	201	0.921	5.17	1
01650	Calcium	7440-70-2	15,300	6.34	20.7	1
01654	Iron	7439-89-6	5,320	4.87	20.7	1
01656	Lithium	7439-93-2	111	0.23	2.1	1
01657	Magnesium	7439-95-4	1,290	2.63	10.3	1
06958	Manganese	7439-96-5	149	0.0807	0.517	1
10145	Phosphorus	7723-14-0	465	0.579	10.3	1
01662	Potassium	7440-09-7	1,820	18.6	51.7	1
01667	Sodium	7440-23-5	1,210	38.6	103	1
07968	Strontium	7440-24-6	136	0.0641	0.517	1
06969	Tin	7440-31-5	415	1.03	10.3	1
06970	Titanium	7440-32-6	482	0.382	1.00	1
10146	Zirconium	7440-67-7	110	0.869	5.17	1
		<b>SW-846 6020</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>
06124	Antimony	7440-36-0	1.24	0.0615	0.205	2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	6.10	0.0615	0.410	2
06126	Barium	7440-39-3	37.3	0.111	0.410	2
06127	Beryllium	7440-41-7	1.12	0.0164	0.102	2
06128	Cadmium	7440-43-9	1.49	0.0369	0.102	2
06131	Chromium	7440-47-3	25.2	0.123	0.410	2
06132	Cobalt	7440-48-4	63.4	0.0205	0.102	2
06133	Copper	7440-50-8	15.2	0.0676	0.410	2
06135	Lead	7439-92-1	6.00	0.0107	0.205	2
06138	Molybdenum	7439-98-7	14.8	0.0512	0.102	2
06139	Nickel	7440-02-0	19.6	0.102	0.410	2
06141	Selenium	7782-49-2	2.45	0.0410	0.410	2
06142	Silver	7440-22-4	13.8	0.0123	0.102	2
06145	Thallium	7440-28-0	0.590	0.0307	0.102	2

\*=This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-288-SA5B-SS-0.0-0.5MSD Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-288-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162945  
**LLI Group #** 1225039  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 09:40

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3503 SDG#: DE035-03MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Metals</b>							
		<b>SW-846 6020</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
06148	Vanadium	7440-62-2	29.6	0.0225	0.102		2
06149	Zinc	7440-66-6	27.7	0.574	3.07		2
		<b>SW-846 7471A</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
00159	Mercury	7439-97-6	0.161	0.0030	0.103		1
<b>Wet Chemistry</b>							
		<b>EPA 160.3 modified</b>	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>	
11625	28a Moisture Content by 160.3	n.a.	4.3	0.50	0.50		1

### General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10350SLB026	01/01/2011 00:19	Ryan P Byrne	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10349SLH026	12/22/2010 12:42	Mark A Clark	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10349SLH026	12/16/2010 06:15	Joseph S Feister	1
00381	BNA Soil Sonication	SW-846 3550B	1	10350SLB026	12/16/2010 17:30	Sally L Appleyard	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	103510024A	12/20/2010 20:39	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	103510029A	12/29/2010 19:06	Jamie L Brillhart	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	103500026A	12/22/2010 01:58	Lindsey K Lafferty	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	103510029A	12/20/2010 07:00	Joseph S Feister	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	103500026A	12/17/2010 00:40	David V Hershey Jr	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	103510024A	12/20/2010 01:40	David V Hershey Jr	1
01643	Aluminum	SW-846 6010B	1	103495708006	12/17/2010 19:16	John P Hook	1
07914	Boron	SW-846 6010B	1	103495708006	12/17/2010 19:16	John P Hook	1
01650	Calcium	SW-846 6010B	1	103495708006	12/17/2010 19:16	John P Hook	1
01654	Iron	SW-846 6010B	1	103495708006	12/17/2010 19:16	John P Hook	1
01656	Lithium	SW-846 6010B	1	103495708006	12/21/2010 07:37	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	103495708006	12/17/2010 19:16	John P Hook	1
06958	Manganese	SW-846 6010B	1	103495708006	12/17/2010 19:16	John P Hook	1
10145	Phosphorus	SW-846 6010B	1	103495708006	12/17/2010 19:16	John P Hook	1
01662	Potassium	SW-846 6010B	1	103495708006	12/17/2010 19:16	John P Hook	1
01667	Sodium	SW-846 6010B	1	103495708006	12/17/2010 19:16	John P Hook	1
07968	Strontium	SW-846 6010B	1	103495708006	12/17/2010 19:16	John P Hook	1

\*=This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-288-SA5B-SS-0.0-0.5MSD Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-288-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162945  
**LLI Group #** 1225039  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 09:40

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3503 SDG#: DE035-03MSD

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
06969	Tin	SW-846 6010B	1	103495708006	12/17/2010	19:16	John P Hook	1
06970	Titanium	SW-846 6010B	1	103555708001	12/22/2010	07:43	Joanne M Gates	1
10146	Zirconium	SW-846 6010B	1	103495708006	12/21/2010	07:37	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	103491026005A	12/23/2010	11:45	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103491026005A	12/23/2010	11:45	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103491026005D	12/23/2010	11:45	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103491026005A	12/23/2010	11:45	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103491026005A	12/23/2010	11:45	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103491026005A	12/23/2010	11:45	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103491026005A	12/23/2010	11:45	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103491026005A	12/23/2010	11:45	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103491026005A	12/23/2010	11:45	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103491026005C	12/23/2010	11:45	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103491026005A	12/23/2010	11:45	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103491026005B	12/23/2010	11:45	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103491026005A	12/23/2010	11:45	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103491026005A	12/23/2010	11:45	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103491026005A	12/23/2010	11:45	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	103491026005A	12/23/2010	11:45	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	103495711005	12/16/2010	06:41	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	103495708006	12/15/2010	20:01	Annamaria Stipkovits	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	103555708001	12/21/2010	12:28	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103491026005	12/15/2010	20:03	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	103495711005	12/15/2010	22:15	Annamaria Stipkovits	1
11625	28a Moisture Content by 160.3	EPA 160.3 modified	1	10349162402A	12/15/2010	09:36	William C Schwebel	1

\*—This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-288-SA5B-SS-0.0-0.5DUP Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-288-SA5B-SS-0.0-0.5

LLI Sample # SW 6162946  
 LLI Group # 1225039  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 09:40

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3503 SDG#: DE035-03DUP

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Metals</b>							
	<b>SW-846 6010B</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
01643	Aluminum	7429-90-5	3,000	5.26	20.9		1
07914	Boron	7440-42-8	2.61 J	0.930	5.22		1
01650	Calcium	7440-70-2	7,730	6.41	20.9		1
01654	Iron	7439-89-6	4,870	4.92	20.9		1
01656	Lithium	7439-93-2	2.5	0.23	2.1		1
01657	Magnesium	7439-95-4	922	2.65	10.4		1
06958	Manganese	7439-96-5	167	0.0815	0.522		1
10145	Phosphorus	7723-14-0	293	0.585	10.4		1
01662	Potassium	7440-09-7	547	18.8	52.2		1
01667	Sodium	7440-23-5	44.6 J	39.0	104		1
07968	Strontium	7440-24-6	13.8	0.0648	0.522		1
06969	Tin	7440-31-5	1.47 J	1.04	10.4		1
06970	Titanium	7440-32-6	338	0.382	1.00		1
10146	Zirconium	7440-67-7	2.39 J	0.878	5.22		1
	<b>SW-846 6020</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
06124	Antimony	7440-36-0	0.110 J	0.0627	0.209		2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	2.80	0.0627	0.418		2
06126	Barium	7440-39-3	18.4	0.113	0.418		2
06127	Beryllium	7440-41-7	0.118	0.0167	0.104		2
06128	Cadmium	7440-43-9	0.0652 J	0.0376	0.104		2
06131	Chromium	7440-47-3	10.0	0.125	0.418		2
06132	Cobalt	7440-48-4	1.85	0.0209	0.104		2
06133	Copper	7440-50-8	2.63	0.0690	0.418		2
06135	Lead	7439-92-1	1.49	0.0109	0.209		2
06138	Molybdenum	7439-98-7	0.601	0.0522	0.104		2
06139	Nickel	7440-02-0	5.84	0.104	0.418		2
06141	Selenium	7782-49-2	0.188 J	0.0418	0.418		2
06142	Silver	7440-22-4	0.0125 U	0.0125	0.104		2
06145	Thallium	7440-28-0	0.0327 J	0.0313	0.104		2
06148	Vanadium	7440-62-2	11.9	0.0230	0.104		2
06149	Zinc	7440-66-6	10.7	0.585	3.13		2
	<b>SW-846 7471A</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
00159	Mercury	7439-97-6	0.0029 U	0.0029	0.101		1
<b>Wet Chemistry</b>							
	<b>EPA 300.0</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.2	0.84	1.0		1
	<b>EPA 314.0</b>		<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.4 U	9.4	31.3		1
	<b>SW-846 7199</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
05892	3a Cr VI by EPA 7199	18540-29-9	0.21 U	0.21	1.0		1

\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-288-SA5B-SS-0.0-0.5DUP Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-288-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162946  
**LLI Group #** 1225039  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 09:40

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3503 SDG#: DE035-03DUP

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Wet Chemistry</b>			<b>ASTM D1498</b>	<b>mV</b>	<b>mV</b>	<b>mV</b>	
01821	Oxidation Reduction Potential	n.a.	439	10.0	10.0		1
The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.							
			<b>SW-846 9045C modified</b>	<b>Std. Units</b>	<b>Std. Units</b>	<b>Std. Units</b>	<b>Std. Units</b>
00394	22a pH by 9045C	n.a.	8.73	0.0100	0.0100		1
<b>Wet Chemistry</b>			<b>EPA 160.3 modified</b>	<b>%</b>	<b>%</b>	<b>%</b>	
11625	28a Moisture Content by 160.3	n.a.	4.3	0.50	0.50		1
11626	28a Moisture Content by 160.3	n.a.	4.4	0.50	0.50		1
The duplicate moisture value is provided to assess the precision of the moisture test. For comparability purposes, the initial moisture determination is the value used to perform dry weight calculations.							

### General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01643	Aluminum	SW-846 6010B	1	103495708006	12/17/2010 19:09	John P Hook	1
07914	Boron	SW-846 6010B	1	103495708006	12/17/2010 19:09	John P Hook	1
01650	Calcium	SW-846 6010B	1	103495708006	12/17/2010 19:09	John P Hook	1
01654	Iron	SW-846 6010B	1	103495708006	12/17/2010 19:09	John P Hook	1
01656	Lithium	SW-846 6010B	1	103495708006	12/22/2010 15:32	John P Hook	1
01657	Magnesium	SW-846 6010B	1	103495708006	12/17/2010 19:09	John P Hook	1
06958	Manganese	SW-846 6010B	1	103495708006	12/17/2010 19:09	John P Hook	1
10145	Phosphorus	SW-846 6010B	1	103495708006	12/17/2010 19:09	John P Hook	1
01662	Potassium	SW-846 6010B	1	103495708006	12/17/2010 19:09	John P Hook	1
01667	Sodium	SW-846 6010B	1	103495708006	12/17/2010 19:09	John P Hook	1
07968	Strontium	SW-846 6010B	1	103495708006	12/17/2010 19:09	John P Hook	1
06969	Tin	SW-846 6010B	1	103495708006	12/17/2010 19:09	John P Hook	1
06970	Titanium	SW-846 6010B	1	103555708001	12/22/2010 07:35	Joanne M Gates	1
10146	Zirconium	SW-846 6010B	1	103495708006	12/21/2010 07:30	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	103491026005A	12/23/2010 11:39	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103491026005A	12/23/2010 11:39	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103491026005D	12/23/2010 11:39	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103491026005A	12/23/2010 11:39	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103491026005A	12/23/2010 11:39	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103491026005A	12/23/2010 11:39	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103491026005A	12/23/2010 11:39	Choon Y Tian	2

\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-288-SA5B-SS-0.0-0.5DUP Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-288-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162946  
**LLI Group #** 1225039  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 09:40

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3503 SDG#: DE035-03DUP

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
06133	Copper	SW-846 6020	1	103491026005A	12/23/2010	11:39	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103491026005A	12/23/2010	11:39	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103491026005C	12/23/2010	11:39	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103491026005A	12/23/2010	11:39	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103491026005B	12/23/2010	11:39	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103491026005A	12/23/2010	11:39	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103491026005A	12/23/2010	11:39	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103491026005A	12/23/2010	11:39	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	103491026005A	12/23/2010	11:39	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	103495711005	12/16/2010	06:38	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	103495708006	12/15/2010	20:01	Annamaria Stipkovits	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	103555708001	12/21/2010	12:28	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103491026005	12/15/2010	20:03	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	103495711005	12/15/2010	22:15	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10362362201A	12/30/2010	00:19	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10357357201B	12/28/2010	03:03	Ashley M Adams	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	10358243201A	12/29/2010	12:29	Ashley M Adams	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10362362201A	12/28/2010	11:00	Erik J Frederiksen	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10357357201B	12/23/2010	19:30	Carolyn M Mastropietro	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10348182103B	12/14/2010	13:00	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10348039403B	12/14/2010	13:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10358243201A	12/24/2010	07:00	Daniel S Smith	1
11625	28a Moisture Content by 160.3	EPA 160.3 modified	1	10349162402A	12/15/2010	09:36	William C Schwebel	1
11626	28a Moisture Content by 160.3	EPA 160.3 modified	1	10349162402A	12/15/2010	09:36	William C Schwebel	1

\*-This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-290-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-290-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162947  
**LLI Group #** 1225039  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 08:45

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3504 SDG#: DE035-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04688	Aniline	62-53-3	180	U 180	540		1
04688	Benzidine	92-87-5	1,300	U 1,300	3,600		1
04688	Benzoic acid	65-85-0	180	U 180	540		1
04688	Benzyl alcohol	100-51-6	180	U 180	540		1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180		1
04688	Butylbenzylphthalate	85-68-7	18	U 18	180		1
04688	Di-n-butylphthalate	84-74-2	18	U 18	180		1
04688	Carbazole	86-74-8	18	U 18	180		1
04688	4-Chloro-3-methylphenol	59-50-7	36	U 36	180		1
04688	4-Chloroaniline	106-47-8	72	U 72	180		1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180		1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180		1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180		1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180		1
04688	2-Chlorophenol	95-57-8	18	U 18	180		1
04688	4-Chlorophenyl-phenylether	7005-72-3	36	U 36	180		1
04688	Dibenzofuran	132-64-9	18	U 18	180		1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180		1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180		1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180		1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	360		1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180		1
04688	Diethylphthalate	84-66-2	18	U 18	180		1
04688	2,4-Dimethylphenol	105-67-9	36	U 36	180		1
04688	3,5-Dimethylphenol	108-68-9	36	U 36	180		1
04688	Dimethylphthalate	131-11-3	18	U 18	180		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	540		1
04688	2,4-Dinitrophenol	51-28-5	720	U 720	2,100		1
04688	2,4-Dinitrotoluene	121-14-2	36	U 36	180		1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180		1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180		1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	29	J 18	360		1
04688	Hexachlorobenzene	118-74-1	18	U 18	180		1
04688	Hexachlorobutadiene	87-68-3	72	U 72	180		1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	540		1
04688	Hexachloroethane	67-72-1	18	U 18	180		1
04688	Isophorone	78-59-1	18	U 18	180		1
04688	2-Methylphenol	95-48-7	36	U 36	180		1
04688	4-Methylphenol	106-44-5	36	U 36	180		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	18	U 18	180		1
04688	3-Nitroaniline	99-09-2	36	U 36	180		1
04688	4-Nitroaniline	100-01-6	72	U 72	180		1
04688	Nitrobenzene	98-95-3	18	U 18	180		1
04688	2-Nitrophenol	88-75-5	18	U 18	180		1
04688	4-Nitrophenol	100-02-7	180	U 180	540		1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180		1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180		1

\*=This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-290-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-290-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162947  
**LLI Group #** 1225039  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 08:45

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3504 SDG#: DE035-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS Semivolatiles SW-846 8270C</b>							
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Di-n-octylphthalate	117-84-0	18	U 18	180		1
04688	Pentachlorophenol	87-86-5	180	U 180	540		1
04688	Phenol	108-95-2	18	U 18	180		1
04688	1,2,4-Trichlorobenzene	120-82-1	18	U 18	180		1
04688	2,4,5-Trichlorophenol	95-95-4	36	U 36	180		1
04688	2,4,6-Trichlorophenol	88-06-2	36	U 36	180		1
<b>GC/MS Semivolatiles SW-846 8270C SIM</b>							
10138	Acenaphthene	83-32-9	7.2	U 7.2	18		1
10138	Acenaphthylene	208-96-8	3.6	U 3.6	18		1
10138	Anthracene	120-12-7	3.6	U 3.6	18		1
10138	Benzo(a)anthracene	56-55-3	7.2	U 7.2	18		1
10138	Benzo(a)pyrene	50-32-8	9.1	J 7.2	18		1
10138	Benzo(b)fluoranthene	205-99-2	24	U 7.2	18		1
10138	Benzo(g,h,i)perylene	191-24-2	39	U 7.2	18		1
10138	Benzo(k)fluoranthene	207-08-9	19	U 7.2	18		1
10138	Chrysene	218-01-9	15	J 3.6	18		1
10138	Dibenz(a,h)anthracene	53-70-3	7.2	U 7.2	18		1
10138	Fluoranthene	206-44-0	7.2	U 7.2	18		1
10138	Fluorene	86-73-7	7.2	U 7.2	18		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	7.2	U 7.2	18		1
10138	1-Methylnaphthalene	90-12-0	7.2	U 7.2	18		1
10138	2-Methylnaphthalene	91-57-6	7.2	U 7.2	18		1
10138	Naphthalene	91-20-3	7.2	U 7.2	18		1
10138	N-Nitrosodimethylamine	62-75-9	7.2	U 7.2	18		1
10138	Phenanthrene	85-01-8	7.2	U 7.2	18		1
10138	Pyrene	129-00-0	7.2	U 7.2	18		1
	Reporting limits were raised due to interference from the sample matrix.						
<b>Herbicides SW-846 8151A</b>							
10401	2,4-D	94-75-7	1.3	U 1.3	3.9		1
10401	Dalapon	75-99-0	4.7	U 4.7	9.7		1
10401	2,4-DB	94-82-6	2.8	U 0.67	1.8		1
10401	Dicamba	1918-00-9	0.43	U 0.43	1.3		1
10401	Dinoseb	88-85-7	0.86	U 0.86	2.6		1
10401	2,4-DP (Dichlorprop)	120-36-5	0.86	U 0.86	1.8		1
10401	MCPA	94-74-6	82	U 82	270		1
10401	MCPA (Mecoprop)	93-65-2	600	U 80	270		1
10401	2,4,5-T	93-76-5	0.088	U 0.088	0.18		1
10401	2,4,5-TP	93-72-1	0.080	U 0.080	0.18		1
	The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported.						
<b>Pesticides/PCBs SW-846 8081A</b>							
01363	Aldrin	309-00-2	0.071	U 0.071	0.18		1

\*=This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-290-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-290-SA5B-SS-0.0-0.5

LLI Sample # SW 6162947  
 LLI Group # 1225039  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 08:45

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3504 SDG#: DE035-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Pesticides/PCBs</b>		<b>SW-846 8081A</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
01363	Alpha BHC	319-84-6	0.036 U	0.036	0.18		1
01363	Beta BHC	319-85-7	0.064 U	0.064	0.18		1
01363	Gamma BHC - Lindane	58-89-9	0.036 U	0.036	0.18		1
01363	Chlordane	57-74-9	0.86 U	0.86	3.6		1
01363	p,p-DDD	72-54-8	0.071 U	0.071	0.36		1
01363	p,p-DDE	72-55-9	0.071 U	0.071	0.36		1
01363	p,p-DDT	50-29-3	0.21 J	0.071	0.36		1
01363	Delta BHC	319-86-8	0.039 U	0.039	0.18		1
01363	Dieldrin	60-57-1	0.071 U	0.071	0.36		1
01363	Endosulfan I	959-98-8	0.047 U	0.047	0.18		1
01363	Endosulfan II	33213-65-9	0.071 U	0.071	0.36		1
01363	Endosulfan Sulfate	1031-07-8	0.071 U	0.071	0.36		1
01363	Endrin	72-20-8	0.071 U	0.071	0.36		1
01363	Endrin Aldehyde	7421-93-4	0.071 U	0.071	0.36		1
01363	Endrin Ketone	53494-70-5	0.071 U	0.071	0.36		1
01363	Heptachlor	76-44-8	0.064 U	0.064	0.18		1
01363	Heptachlor Epoxide	1024-57-3	0.036 U	0.036	0.18		1
01363	Methoxychlor	72-43-5	0.36 U	0.36	1.8		1
01363	Mirex	2385-85-5	0.071 U	0.071	0.36		1
01363	Toxaphene	8001-35-2	2.4 U	2.4	7.1		1

Various analytes in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported.

<b>Pesticides/PCBs</b>		<b>SW-846 8082</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.5		1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.5		1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.5		1
10225	PCB-1016	12674-11-2	0.35 U	0.35	1.8		1
10225	PCB-1221	11104-28-2	0.54 U	0.54	1.8		1
10225	PCB-1232	11141-16-5	0.56 U	0.56	1.8		1
10225	PCB-1242	53469-21-9	0.54 U	0.54	1.8		1
10225	PCB-1248	12672-29-6	0.35 U	0.35	1.8		1
10225	PCB-1254	11097-69-1	0.35 U	0.35	1.8		1
10225	PCB-1260	11096-82-5	0.35 U	0.35	1.8		1
10225	PCB-1262	37324-23-5	0.35 U	0.35	1.8		1
10225	PCB-1268	11100-14-4	0.35 U	0.35	1.8		1

The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.

<b>Metals</b>		<b>SW-846 6010B</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
01643	Aluminum	7429-90-5	10,200	5.40	21.5		1
07914	Boron	7440-42-8	6.47	0.955	5.36		1
01650	Calcium	7440-70-2	4,250	6.58	21.5		1
01654	Iron	7439-89-6	13,300	5.05	21.5		1
01656	Lithium	7439-93-2	8.3	0.24	2.1		1
01657	Magnesium	7439-95-4	3,180	2.73	10.7		1
06958	Manganese	7439-96-5	171	0.0837	0.536		1
10145	Phosphorus	7723-14-0	603	0.603	10.7		1
01662	Potassium	7440-09-7	1,780	19.3	53.6		1

\*=This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-290-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-290-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162947  
**LLI Group #** 1225039  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 08:45

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3504 SDG#: DE035-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Metals</b>							
	<b>SW-846 6010B</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
01667	Sodium	7440-23-5	258	40.0	107		1
07968	Strontium	7440-24-6	55.9	0.0665	0.536		1
06969	Tin	7440-31-5	1.46 J	1.07	10.7		1
06970	Titanium	7440-32-6	869	0.388	1.02		1
10146	Zirconium	7440-67-7	4.03 J	0.901	5.36		1
	<b>SW-846 6020</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
06124	Antimony	7440-36-0	0.269	0.0625	0.208		2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	5.66	0.0625	0.417		2
06126	Barium	7440-39-3	130	0.113	0.417		2
06127	Beryllium	7440-41-7	0.288	0.0167	0.104		2
06128	Cadmium	7440-43-9	0.232	0.0375	0.104		2
06131	Chromium	7440-47-3	31.1	0.125	0.417		2
06132	Cobalt	7440-48-4	5.60	0.0208	0.104		2
06133	Copper	7440-50-8	9.95	0.0688	0.417		2
06135	Lead	7439-92-1	5.21	0.0108	0.208		2
06138	Molybdenum	7439-98-7	2.37	0.0521	0.104		2
06139	Nickel	7440-02-0	14.8	0.104	0.417		2
06141	Selenium	7782-49-2	0.180 J	0.0417	0.417		2
06142	Silver	7440-22-4	0.0258 J	0.0125	0.104		2
06145	Thallium	7440-28-0	0.166	0.0313	0.104		2
06148	Vanadium	7440-62-2	42.1	0.0229	0.104		2
06149	Zinc	7440-66-6	43.4	0.583	3.13		2
	<b>SW-846 7471A</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
00159	Mercury	7439-97-6	0.0030 U	0.0030	0.104		1
<b>Wet Chemistry</b>							
	<b>EPA 300.0</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	2.5	0.86	1.1		1
	<b>EPA 314.0</b>		<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.7 U	9.7	32.2		1
	<b>SW-846 7199</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
05892	3a Cr VI by EPA 7199	18540-29-9	0.29 J	0.21	1.1		1
	<b>ASTM D1498</b>		<b>mV</b>	<b>mV</b>	<b>mV</b>	<b>mV</b>	
01821	Oxidation Reduction Potential	n.a.	421	10.0	10.0		1
	The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.						
	<b>SW-846 9045C modified</b>		<b>Std. Units</b>	<b>Std. Units</b>	<b>Std. Units</b>	<b>Std. Units</b>	
00394	22a pH by 9045C	n.a.	7.84	0.0100	0.0100		1

\*=This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-290-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-290-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162947  
**LLI Group #** 1225039  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 08:45

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3504 SDG#: DE035-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Wet Chemistry EPA 160.3 modified</b>							
11624	28a Moisture Content by 160.3	n.a.	6.8	0.50	0.50	%	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.							

### General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10350SLB026	01/01/2011	02:00	Ryan P Byrne	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10349SLH026	12/22/2010	14:25	Mark A Clark	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10349SLH026	12/16/2010	06:15	Joseph S Feister	1
00381	BNA Soil Sonication	SW-846 3550B	1	10350SLB026	12/16/2010	17:30	Sally L Appleyard	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	103510024A	01/06/2011	19:08	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	103510029A	12/29/2010	19:21	Jamie L Brillhart	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	103500026A	12/22/2010	02:16	Lindsey K Lafferty	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	103510029A	12/20/2010	07:00	Joseph S Feister	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	103500026A	12/17/2010	00:40	David V Hershey Jr	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	103510024A	12/20/2010	01:40	David V Hershey Jr	1
01643	Aluminum	SW-846 6010B	1	103495708006	12/17/2010	19:37	John P Hook	1
07914	Boron	SW-846 6010B	1	103495708006	12/17/2010	19:37	John P Hook	1
01650	Calcium	SW-846 6010B	1	103495708006	12/17/2010	19:37	John P Hook	1
01654	Iron	SW-846 6010B	1	103495708006	12/17/2010	19:37	John P Hook	1
01656	Lithium	SW-846 6010B	1	103495708006	12/22/2010	16:04	John P Hook	1
01657	Magnesium	SW-846 6010B	1	103495708006	12/17/2010	19:37	John P Hook	1
06958	Manganese	SW-846 6010B	1	103495708006	12/17/2010	19:37	John P Hook	1
10145	Phosphorus	SW-846 6010B	1	103495708006	12/17/2010	19:37	John P Hook	1
01662	Potassium	SW-846 6010B	1	103495708006	12/17/2010	19:37	John P Hook	1
01667	Sodium	SW-846 6010B	1	103495708006	12/17/2010	19:37	John P Hook	1
07968	Strontium	SW-846 6010B	1	103495708006	12/17/2010	19:37	John P Hook	1
06969	Tin	SW-846 6010B	1	103495708006	12/17/2010	19:37	John P Hook	1
06970	Titanium	SW-846 6010B	1	103555708001	12/22/2010	08:04	Joanne M Gates	1
10146	Zirconium	SW-846 6010B	1	103495708006	12/21/2010	07:58	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	103491026005A	12/23/2010	12:04	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103491026005A	12/23/2010	12:04	Choon Y Tian	2

\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-290-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-290-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162947  
**LLI Group #** 1225039  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 08:45

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3504 SDG#: DE035-04

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
06126	Barium	SW-846 6020	1	103491026005D	12/23/2010	12:04	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103491026005A	12/23/2010	12:04	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103491026005A	12/23/2010	12:04	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103491026005A	12/23/2010	12:04	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103491026005A	12/23/2010	12:04	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103491026005A	12/23/2010	12:04	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103491026005A	12/23/2010	12:04	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103491026005C	12/23/2010	12:04	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103491026005A	12/23/2010	12:04	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103491026005B	12/23/2010	12:04	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103491026005A	12/23/2010	12:04	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103491026005A	12/23/2010	12:04	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103491026005A	12/23/2010	12:04	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	103491026005A	12/23/2010	12:04	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	103495711005	12/16/2010	06:43	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	103495708006	12/15/2010	20:01	Annamaria Stipkovits	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	103555708001	12/21/2010	12:28	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103491026005	12/15/2010	20:03	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	103495711005	12/15/2010	22:15	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10362362201A	12/30/2010	01:16	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10357357201B	12/28/2010	07:28	Ashley M Adams	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	10358243201A	12/29/2010	12:42	Ashley M Adams	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10362362201A	12/28/2010	11:00	Erik J Frederiksen	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10357357201B	12/23/2010	19:30	Carolyn M Mastropietro	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10348182103B	12/14/2010	13:00	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10348039403B	12/14/2010	13:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10358243201A	12/24/2010	07:00	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	1	10349162402A	12/15/2010	09:36	William C Schwebel	1

\*—This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** DUP03-SA5B-QC-121010 Soil  
 SSFL Area IV Collocated Soil Sampling  
 DUP03-SA5B-QC-121010

**LLI Sample #** SW 6162948  
**LLI Group #** 1225039  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 09:05

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D35-5 SDG#: DE035-05FD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04688	Aniline	62-53-3	180	U 180	530		1
04688	Benzidine	92-87-5	1,200	U 1,200	3,500		1
04688	Benzoic acid	65-85-0	180	U 180	530		1
04688	Benzyl alcohol	100-51-6	180	U 180	530		1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180		1
04688	Di-n-butylphthalate	84-74-2	18	U 18	180		1
04688	Carbazole	86-74-8	18	U 18	180		1
04688	4-Chloro-3-methylphenol	59-50-7	35	U 35	180		1
04688	4-Chloroaniline	106-47-8	70	U 70	180		1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180		1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180		1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180		1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180		1
04688	2-Chlorophenol	95-57-8	18	U 18	180		1
04688	4-Chlorophenyl-phenylether	7005-72-3	35	U 35	180		1
04688	Dibenzofuran	132-64-9	18	U 18	180		1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180		1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180		1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180		1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	350		1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180		1
04688	2,4-Dimethylphenol	105-67-9	35	U 35	180		1
04688	3,5-Dimethylphenol	108-68-9	35	U 35	180		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	530		1
04688	2,4-Dinitrophenol	51-28-5	700	U 700	2,100		1
04688	2,4-Dinitrotoluene	121-14-2	35	U 35	180		1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180		1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180		1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	27	J 18	350		1
04688	Hexachlorobenzene	118-74-1	18	U 18	180		1
04688	Hexachlorobutadiene	87-68-3	70	U 70	180		1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	530		1
04688	Hexachloroethane	67-72-1	18	U 18	180		1
04688	Isophorone	78-59-1	18	U 18	180		1
04688	2-Methylphenol	95-48-7	35	U 35	180		1
04688	4-Methylphenol	106-44-5	35	U 35	180		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	18	U 18	180		1
04688	3-Nitroaniline	99-09-2	35	U 35	180		1
04688	4-Nitroaniline	100-01-6	70	U 70	180		1
04688	Nitrobenzene	98-95-3	18	U 18	180		1
04688	2-Nitrophenol	88-75-5	18	U 18	180		1
04688	4-Nitrophenol	100-02-7	180	U 180	530		1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180		1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						

\*=This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** DUP03-SA5B-QC-121010 Soil  
 SSFL Area IV Collocated Soil Sampling  
 DUP03-SA5B-QC-121010

**LLI Sample #** SW 6162948  
**LLI Group #** 1225039  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 09:05

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D35-5 SDG#: DE035-05FD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04688	Pentachlorophenol	87-86-5	180	U 180	530		1
04688	Phenol	108-95-2	18	U 18	180		1
04688	1,2,4-Trichlorobenzene	120-82-1	18	U 18	180		1
04688	2,4,5-Trichlorophenol	95-95-4	35	U 35	180		1
04688	2,4,6-Trichlorophenol	88-06-2	35	U 35	180		1
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C SIM</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10138	Acenaphthene	83-32-9	0.70	U 0.70	1.8		1
10138	Acenaphthylene	208-96-8	0.35	U 0.35	1.8		1
10138	Anthracene	120-12-7	0.35	U 0.35	1.8		1
10138	Benzo(a)anthracene	56-55-3	0.70	U 0.70	1.8		1
10138	Benzo(a)pyrene	50-32-8	0.70	U 0.70	1.8		1
10138	Benzo(b)fluoranthene	205-99-2	1.0	J 0.70	1.8		1
10138	Benzo(g,h,i)perylene	191-24-2	0.70	U 0.70	1.8		1
10138	Benzo(k)fluoranthene	207-08-9	0.70	U 0.70	1.8		1
10138	Butylbenzylphthalate	85-68-7	6.3	U 6.3	19		1
10138	Chrysene	218-01-9	0.95	J 0.35	1.8		1
10138	Dibenz(a,h)anthracene	53-70-3	0.70	U 0.70	1.8		1
10138	Diethylphthalate	84-66-2	6.3	U 6.3	19		1
10138	Dimethylphthalate	131-11-3	6.3	U 6.3	19		1
10138	Fluoranthene	206-44-0	1.6	J 0.70	1.8		1
10138	Fluorene	86-73-7	0.70	U 0.70	1.8		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.70	U 0.70	1.8		1
10138	1-Methylnaphthalene	90-12-0	0.70	U 0.70	1.8		1
10138	2-Methylnaphthalene	91-57-6	0.70	U 0.70	1.8		1
10138	Naphthalene	91-20-3	0.71	J 0.70	1.8		1
10138	N-Nitrosodimethylamine	62-75-9	0.70	U 0.70	1.8		1
10138	Di-n-octylphthalate	117-84-0	6.3	U 6.3	19		1
10138	Phenanthrene	85-01-8	0.84	J 0.70	1.8		1
10138	Pyrene	129-00-0	1.3	J 0.70	1.8		1
<b>Herbicides</b>	<b>SW-846 8151A</b>		<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10401	2,4-D	94-75-7	1.3	U 1.3	3.8		1
10401	Dalapon	75-99-0	4.6	U 4.6	9.5		1
10401	2,4-DB	94-82-6	0.65	U 0.65	1.8		1
10401	Dicamba	1918-00-9	0.42	U 0.42	1.3		1
10401	Dinoseb	88-85-7	0.84	U 0.84	2.5		1
10401	2,4-DP (Dichlorprop)	120-36-5	0.84	U 0.84	1.8		1
10401	MCPA	94-74-6	180	U 180	260		1
10401	MCPP (Mecoprop)	93-65-2	79	U 79	260		1
10401	2,4,5-T	93-76-5	0.086	U 0.086	0.18		1
10401	2,4,5-TP	93-72-1	0.079	U 0.079	0.18		1

The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported.

Due to interfering peaks on the chromatogram, the values reported represent the lowest reporting limits attainable.

Despite numerous cleanup methods, our usual reporting limits were not

\*=This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** DUP03-SA5B-QC-121010 Soil  
 SSFL Area IV Collocated Soil Sampling  
 DUP03-SA5B-QC-121010

LLI Sample # SW 6162948  
 LLI Group # 1225039  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 09:05

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D35-5 SDG#: DE035-05FD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
attained.							
<b>Pesticides/PCBs SW-846 8081A</b>							
01363	Aldrin	309-00-2	0.069 U	0.069	0.17		1
01363	Alpha BHC	319-84-6	0.036 U	0.036	0.17		1
01363	Beta BHC	319-85-7	0.063 U	0.063	0.17		1
01363	Gamma BHC - Lindane	58-89-9	0.036 U	0.036	0.17		1
01363	Chlordane	57-74-9	0.84 U	0.84	3.6		1
01363	p,p-DDD	72-54-8	0.069 U	0.069	0.36		1
01363	p,p-DDE	72-55-9	0.069 U	0.069	0.36		1
01363	p,p-DDT	50-29-3	0.069 U	0.069	0.36		1
01363	Delta BHC	319-86-8	0.038 U	0.038	0.17		1
01363	Dieldrin	60-57-1	0.069 U	0.069	0.36		1
01363	Endosulfan I	959-98-8	0.046 U	0.046	0.17		1
01363	Endosulfan II	33213-65-9	0.069 U	0.069	0.36		1
01363	Endosulfan Sulfate	1031-07-8	0.069 U	0.069	0.36		1
01363	Endrin	72-20-8	0.069 U	0.069	0.36		1
01363	Endrin Aldehyde	7421-93-4	0.069 U	0.069	0.36		1
01363	Endrin Ketone	53494-70-5	0.069 U	0.069	0.36		1
01363	Heptachlor	76-44-8	0.063 U	0.063	0.17		1
01363	Heptachlor Epoxide	1024-57-3	0.036 U	0.036	0.17		1
01363	Methoxychlor	72-43-5	0.36 U	0.36	1.7		1
01363	Mirex	2385-85-5	0.10 J	0.069	0.36		1
01363	Toxaphene	8001-35-2	2.3 U	2.3	6.9		1

Various analytes in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported.

Due to interfering peaks on the chromatogram from the presence of PCBs, the values reported represent the lowest reporting limits attainable. Despite numerous cleanup methods, our usual reporting limits were not attained.

<b>Pesticides/PCBs SW-846 8082</b>							
			ug/kg	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.5		1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.5		1
10225	Aroclor 5460	11126-42-4	1.4 J	1.1	3.5		1
10225	PCB-1016	12674-11-2	0.35 U	0.35	1.8		1
10225	PCB-1221	11104-28-2	0.53 U	0.53	1.8		1
10225	PCB-1232	11141-16-5	0.55 U	0.55	1.8		1
10225	PCB-1242	53469-21-9	0.53 U	0.53	1.8		1
10225	PCB-1248	12672-29-6	0.78 J	0.35	1.8		1
10225	PCB-1254	11097-69-1	0.35 U	0.35	1.8		1
10225	PCB-1260	11096-82-5	2.1	0.35	1.8		1
10225	PCB-1262	37324-23-5	0.35 U	0.35	1.8		1
10225	PCB-1268	11100-14-4	0.35 U	0.35	1.8		1

The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.

<b>Metals SW-846 6010B</b>							
			mg/kg	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	3,240	5.28	21.0		1
07914	Boron	7440-42-8	2.88 J	0.935	5.25		1
01650	Calcium	7440-70-2	8,080	6.44	21.0		1
01654	Iron	7439-89-6	5,290	4.95	21.0		1

\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** DUP03-SA5B-QC-121010 Soil  
 SSFL Area IV Collocated Soil Sampling  
 DUP03-SA5B-QC-121010

**LLI Sample #** SW 6162948  
**LLI Group #** 1225039  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 09:05

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D35-5 SDG#: DE035-05FD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Metals</b>							
<b>SW-846 6010B</b>			<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
01656	Lithium	7439-93-2	2.9	0.23	2.1		1
01657	Magnesium	7439-95-4	1,010	2.67	10.5		1
06958	Manganese	7439-96-5	105	0.0819	0.525		1
10145	Phosphorus	7723-14-0	357	0.588	10.5		1
01662	Potassium	7440-09-7	627	18.9	52.5		1
01667	Sodium	7440-23-5	54.3 J	39.2	105		1
07968	Strontium	7440-24-6	15.4	0.0651	0.525		1
06969	Tin	7440-31-5	1.80 J	1.05	10.5		1
06970	Titanium	7440-32-6	291	0.395	1.04		1
10146	Zirconium	7440-67-7	2.03 J	0.882	5.25		1
<b>SW-846 6020</b>			<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
06124	Antimony	7440-36-0	0.123 J	0.0618	0.206		2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.							
06125	Arsenic	7440-38-2	3.76	0.0618	0.412		2
06126	Barium	7440-39-3	24.2	0.111	0.412		2
06127	Beryllium	7440-41-7	0.149	0.0165	0.103		2
06128	Cadmium	7440-43-9	0.110	0.0371	0.103		2
06131	Chromium	7440-47-3	13.7	0.124	0.412		2
06132	Cobalt	7440-48-4	2.52	0.0206	0.103		2
06133	Copper	7440-50-8	4.05	0.0680	0.412		2
06135	Lead	7439-92-1	5.42	0.0107	0.206		2
06138	Molybdenum	7439-98-7	0.826	0.0515	0.103		2
06139	Nickel	7440-02-0	8.00	0.103	0.412		2
06141	Selenium	7782-49-2	0.117 J	0.0412	0.412		2
06142	Silver	7440-22-4	0.0124 U	0.0124	0.103		2
06145	Thallium	7440-28-0	0.0571 J	0.0309	0.103		2
06148	Vanadium	7440-62-2	16.5	0.0227	0.103		2
06149	Zinc	7440-66-6	15.6	0.577	3.09		2
<b>SW-846 7471A</b>			<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
00159	Mercury	7439-97-6	0.0029 U	0.0029	0.102		1
<b>Wet Chemistry</b>							
<b>EPA 300.0</b>			<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	0.84 U	0.84	1.1		1
<b>EPA 314.0</b>			<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.5 U	9.5	31.5		1
<b>SW-846 7199</b>			<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
05892	3a Cr VI by EPA 7199	18540-29-9	0.30 J	0.21	1.1		1
<b>ASTM D1498</b>			<b>mV</b>	<b>mV</b>	<b>mV</b>	<b>mV</b>	
01821	Oxidation Reduction Potential	n.a.	416	10.0	10.0		1

\*-This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** DUP03-SA5B-QC-121010 Soil  
 SSFL Area IV Collocated Soil Sampling  
 DUP03-SA5B-QC-121010

**LLI Sample #** SW 6162948  
**LLI Group #** 1225039  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 09:05

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D35-5 SDG#: DE035-05FD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Wet Chemistry</b>		<b>ASTM D1498</b>	mV	mV	mV	mV	
The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.							
		<b>SW-846 9045C modified</b>	Std. Units	Std. Units	Std. Units	Std. Units	
00394	22a pH by 9045C	n.a.	8.70	0.0100	0.0100		1
<b>Wet Chemistry</b>		<b>EPA 160.3 modified</b>	%	%	%	%	
11624	28a Moisture Content by 160.3	n.a.	4.8	0.50	0.50		1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.							

### General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10350SLB026	01/01/2011 02:26	Ryan P Byrne	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10349SLH026	12/22/2010 22:57	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10349SLH026	12/16/2010 06:15	Joseph S Feister	1
00381	BNA Soil Sonication	SW-846 3550B	1	10350SLB026	12/16/2010 17:30	Sally L Appleyard	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	103510024A	12/20/2010 21:34	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	103510029A	12/29/2010 19:35	Jamie L Brillhart	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	103500026A	12/22/2010 02:35	Lindsey K Lafferty	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	103510029A	12/20/2010 07:00	Joseph S Feister	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	103500026A	12/17/2010 00:40	David V Hershey Jr	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	103510024A	12/20/2010 01:40	David V Hershey Jr	1
01643	Aluminum	SW-846 6010B	1	103495708006	12/17/2010 19:41	John P Hook	1
07914	Boron	SW-846 6010B	1	103495708006	12/17/2010 19:41	John P Hook	1
01650	Calcium	SW-846 6010B	1	103495708006	12/17/2010 19:41	John P Hook	1
01654	Iron	SW-846 6010B	1	103495708006	12/17/2010 19:41	John P Hook	1
01656	Lithium	SW-846 6010B	1	103495708006	12/22/2010 16:08	John P Hook	1
01657	Magnesium	SW-846 6010B	1	103495708006	12/17/2010 19:41	John P Hook	1

\*=This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** DUP03-SA5B-QC-121010 Soil  
 SSFL Area IV Collocated Soil Sampling  
 DUP03-SA5B-QC-121010

**LLI Sample #** SW 6162948  
**LLI Group #** 1225039  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 09:05

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D35-5 SDG#: DE035-05FD

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06958	Manganese	SW-846 6010B	1	103495708006	12/17/2010 19:41	John P Hook	1
10145	Phosphorus	SW-846 6010B	1	103495708006	12/17/2010 19:41	John P Hook	1
01662	Potassium	SW-846 6010B	1	103495708006	12/17/2010 19:41	John P Hook	1
01667	Sodium	SW-846 6010B	1	103495708006	12/17/2010 19:41	John P Hook	1
07968	Strontium	SW-846 6010B	1	103495708006	12/17/2010 19:41	John P Hook	1
06969	Tin	SW-846 6010B	1	103495708006	12/17/2010 19:41	John P Hook	1
06970	Titanium	SW-846 6010B	1	103555708001	12/22/2010 08:08	Joanne M Gates	1
10146	Zirconium	SW-846 6010B	1	103495708006	12/21/2010 08:02	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	103491026005A	12/23/2010 12:07	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103491026005A	12/23/2010 12:07	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103491026005D	12/23/2010 12:07	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103491026005A	12/23/2010 12:07	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103491026005A	12/23/2010 12:07	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103491026005A	12/23/2010 12:07	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103491026005A	12/23/2010 12:07	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103491026005A	12/23/2010 12:07	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103491026005A	12/23/2010 12:07	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103491026005C	12/23/2010 12:07	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103491026005A	12/23/2010 12:07	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103491026005B	12/23/2010 12:07	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103491026005A	12/23/2010 12:07	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103491026005A	12/23/2010 12:07	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103491026005A	12/23/2010 12:07	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	103491026005A	12/23/2010 12:07	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	103495711005	12/16/2010 06:44	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	103495708006	12/15/2010 20:01	Annamaria Stipkovits	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	103555708001	12/21/2010 12:28	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103491026005	12/15/2010 20:03	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	103495711005	12/15/2010 22:15	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10362362201A	12/30/2010 01:30	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10362362201A	12/29/2010 00:41	Ashley M Adams	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	10358243201A	12/29/2010 12:55	Ashley M Adams	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10362362201A	12/28/2010 11:00	Erik J Frederiksen	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10362362203A	12/28/2010 14:00	Nancy J Shoop	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10348182103B	12/14/2010 13:00	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10348039403B	12/14/2010 13:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10358243201A	12/24/2010 07:00	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	1	10349162402A	12/15/2010 09:36	William C Schwebel	1

\*—This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-010-SA5C-SB-4.0-5.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-010-SA5C-SB-4.0-5.0

LLI Sample # SW 6162949  
 LLI Group # 1225039  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 10:54

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3506 SDG#: DE035-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
06192	Acetone	67-64-1	6.7 U	6.7	8.1		0.88
06192	Benzene	71-43-2	0.10 U	0.10	4.0		0.88
06192	Bromobenzene	108-86-1	0.13 U	0.13	4.0		0.88
06192	Bromochloromethane	74-97-5	0.33 U	0.33	4.0		0.88
06192	Bromodichloromethane	75-27-4	0.08 U	0.08	4.0		0.88
06192	Bromoform	75-25-2	0.40 U	0.40	4.0		0.88
06192	Bromomethane	74-83-9	0.25 U	0.25	4.0		0.88
06192	2-Butanone	78-93-3	1.2 U	1.2	8.1		0.88
06192	n-Butylbenzene	104-51-8	0.12 U	0.12	4.0		0.88
06192	sec-Butylbenzene	135-98-8	0.06 U	0.06	4.0		0.88
06192	tert-Butylbenzene	98-06-6	0.16 U	0.16	4.0		0.88
06192	Carbon Tetrachloride	56-23-5	0.14 U	0.14	4.0		0.88
06192	Chlorobenzene	108-90-7	0.11 U	0.11	4.0		0.88
06192	Chloroethane	75-00-3	0.13 U	0.13	4.0		0.88
06192	2-Chloroethyl Vinyl Ether	110-75-8	0.30 U	0.30	4.0		0.88
06192	Chloroform	67-66-3	0.12 U	0.12	4.0		0.88
06192	Chloromethane	74-87-3	0.33 U	0.33	4.0		0.88
06192	2-Chlorotoluene	95-49-8	0.14 U	0.14	4.0		0.88
06192	4-Chlorotoluene	106-43-4	0.14 U	0.14	4.0		0.88
06192	Chlorotrifluoroethene	79-38-9	0.50 U	0.50	5.0		0.88
06192	1,2-Dibromo-3-chloropropane	96-12-8	0.70 U	0.70	4.0		0.88
06192	Dibromochloromethane	124-48-1	0.20 U	0.20	4.0		0.88
06192	1,2-Dibromoethane	106-93-4	0.17 U	0.17	4.0		0.88
06192	Dibromomethane	74-95-3	0.24 U	0.24	4.0		0.88
06192	1,2-Dichlorobenzene	95-50-1	0.09 U	0.09	4.0		0.88
06192	1,3-Dichlorobenzene	541-73-1	0.12 U	0.12	4.0		0.88
06192	1,4-Dichlorobenzene	106-46-7	0.16 U	0.16	4.0		0.88
06192	Dichlorodifluoromethane	75-71-8	0.12 U	0.12	4.0		0.88
06192	1,1-Dichloroethane	75-34-3	0.10 U	0.10	4.0		0.88
06192	1,2-Dichloroethane	107-06-2	0.15 U	0.15	4.0		0.88
06192	1,1-Dichloroethene	75-35-4	0.39 U	0.39	4.0		0.88
06192	cis-1,2-Dichloroethene	156-59-2	0.19 U	0.19	4.0		0.88
06192	trans-1,2-Dichloroethene	156-60-5	0.12 U	0.12	4.0		0.88
06192	1,2-Dichloropropane	78-87-5	0.17 U	0.17	4.0		0.88
06192	1,3-Dichloropropane	142-28-9	0.08 U	0.08	4.0		0.88
06192	2,2-Dichloropropane	594-20-7	0.17 U	0.17	4.0		0.88
06192	1,1-Dichloropropene	563-58-6	0.13 U	0.13	4.0		0.88
06192	cis-1,3-Dichloropropene	10061-01-5	0.16 U	0.16	4.0		0.88
06192	trans-1,3-Dichloropropene	10061-02-6	0.17 U	0.17	4.0		0.88
06192	Ethylbenzene	100-41-4	0.06 U	0.06	4.0		0.88
06192	Freon 113	76-13-1	0.11 U	0.11	4.0		0.88
06192	Freon 133a	75-88-7	0.50 U	0.50	5.0		0.88
06192	Hexachlorobutadiene	87-68-3	0.14 U	0.14	4.0		0.88
06192	2-Hexanone	591-78-6	1.6 U	1.6	8.1		0.88
06192	Isopropylbenzene	98-82-8	0.06 U	0.06	4.0		0.88
06192	p-Isopropyltoluene	99-87-6	0.11 U	0.11	4.0		0.88
06192	Methyl Tertiary Butyl Ether	1634-04-4	0.21 U	0.21	4.0		0.88
06192	4-Methyl-2-pentanone	108-10-1	0.39 U	0.39	8.1		0.88
06192	Methylene Chloride	75-09-2	1.6 J	0.24	4.0		0.88
06192	n-Propylbenzene	103-65-1	0.07 U	0.07	4.0		0.88

\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-010-SA5C-SB-4.0-5.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-010-SA5C-SB-4.0-5.0

**LLI Sample #** SW 6162949  
**LLI Group #** 1225039  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 10:54

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3506 SDG#: DE035-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
06192	Styrene	100-42-5	0.10 U	0.10	4.0		0.88
06192	1,1,1,2-Tetrachloroethane	630-20-6	0.11 U	0.11	4.0		0.88
06192	1,1,2,2-Tetrachloroethane	79-34-5	0.23 U	0.23	4.0		0.88
06192	Tetrachloroethene	127-18-4	0.20 U	0.20	4.0		0.88
06192	Toluene	108-88-3	0.15 J	0.08	4.0		0.88
06192	1,2,3-Trichlorobenzene	87-61-6	0.14 U	0.14	4.0		0.88
06192	1,2,4-Trichlorobenzene	120-82-1	0.18 U	0.18	4.0		0.88
06192	1,1,1-Trichloroethane	71-55-6	0.20 U	0.20	4.0		0.88
06192	1,1,2-Trichloroethane	79-00-5	0.27 U	0.27	4.0		0.88
06192	Trichloroethene	79-01-6	0.15 U	0.15	4.0		0.88
06192	Trichlorofluoromethane	75-69-4	0.29 U	0.29	4.0		0.88
06192	1,2,3-Trichloropropane	96-18-4	0.33 U	0.33	4.0		0.88
06192	1,2,4-Trimethylbenzene	95-63-6	0.40 U	0.40	4.0		0.88
06192	1,3,5-Trimethylbenzene	108-67-8	0.10 U	0.10	4.0		0.88
06192	Vinyl Chloride	75-01-4	0.20 U	0.20	4.0		0.88
06192	m+p-Xylene	179601-23-1	0.17 U	0.17	4.0		0.88
06192	o-Xylene	95-47-6	0.17 U	0.17	4.0		0.88
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B SIM</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10326	1,4-Dioxane	123-91-1	5.5 U	5.5	17		24.18
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>EPA 1625C</b>	<b>ng/kg</b>	<b>ng/kg</b>	<b>ng/kg</b>	<b>ng/kg</b>	
11622	N-Nitrosodimethylamine	62-75-9	109	38.1	76.1		2
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04688	Aniline	62-53-3	190	U 190	570		1
04688	Benzidine	92-87-5	1,300	U 1,300	3,800		1
04688	Benzoic acid	65-85-0	190	U 190	570		1
04688	Benzyl alcohol	100-51-6	190	U 190	570		1
04688	4-Bromophenyl-phenylether	101-55-3	19	U 19	190		1
04688	Carbazole	86-74-8	19	U 19	190		1
04688	4-Chloro-3-methylphenol	59-50-7	38	U 38	190		1
04688	4-Chloroaniline	106-47-8	76	U 76	190		1
04688	bis(2-Chloroethoxy)methane	111-91-1	19	U 19	190		1
04688	bis(2-Chloroethyl)ether	111-44-4	19	U 19	190		1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	19	U 19	190		1
04688	2-Chloronaphthalene	91-58-7	19	U 19	190		1
04688	2-Chlorophenol	95-57-8	19	U 19	190		1
04688	4-Chlorophenyl-phenylether	7005-72-3	38	U 38	190		1
04688	Dibenzofuran	132-64-9	19	U 19	190		1
04688	1,2-Dichlorobenzene	95-50-1	19	U 19	190		1
04688	1,3-Dichlorobenzene	541-73-1	19	U 19	190		1
04688	1,4-Dichlorobenzene	106-46-7	19	U 19	190		1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	380		1
04688	2,4-Dichlorophenol	120-83-2	19	U 19	190		1
04688	2,4-Dimethylphenol	105-67-9	38	U 38	190		1
04688	3,5-Dimethylphenol	108-68-9	38	U 38	190		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	190	U 190	570		1
04688	2,4-Dinitrophenol	51-28-5	760	U 760	2,300		1

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Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-010-SA5C-SB-4.0-5.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-010-SA5C-SB-4.0-5.0

**LLI Sample #** SW 6162949  
**LLI Group #** 1225039  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 10:54

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3506 SDG#: DE035-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04688	2,4-Dinitrotoluene	121-14-2	38	U 38	190		1
04688	2,6-Dinitrotoluene	606-20-2	19	U 19	190		1
04688	1,2-Diphenylhydrazine	122-66-7	19	U 19	190		1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	20	J 19	380		1
04688	Hexachlorobenzene	118-74-1	19	U 19	190		1
04688	Hexachlorobutadiene	87-68-3	76	U 76	190		1
04688	Hexachlorocyclopentadiene	77-47-4	190	U 190	570		1
04688	Hexachloroethane	67-72-1	19	U 19	190		1
04688	Isophorone	78-59-1	19	U 19	190		1
04688	2-Methylphenol	95-48-7	38	U 38	190		1
04688	4-Methylphenol	106-44-5	38	U 38	190		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	19	U 19	190		1
04688	3-Nitroaniline	99-09-2	38	U 38	190		1
04688	4-Nitroaniline	100-01-6	76	U 76	190		1
04688	Nitrobenzene	98-95-3	19	U 19	190		1
04688	2-Nitrophenol	88-75-5	19	U 19	190		1
04688	4-Nitrophenol	100-02-7	190	U 190	570		1
04688	N-Nitroso-di-n-propylamine	621-64-7	19	U 19	190		1
04688	N-Nitrosodiphenylamine	86-30-6	19	U 19	190		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	190	U 190	570		1
04688	Phenol	108-95-2	19	U 19	190		1
04688	1,2,4-Trichlorobenzene	120-82-1	19	U 19	190		1
04688	2,4,5-Trichlorophenol	95-95-4	38	U 38	190		1
04688	2,4,6-Trichlorophenol	88-06-2	38	U 38	190		1
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C SIM</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10138	Acenaphthene	83-32-9	0.76	U 0.76	1.9		1
10138	Acenaphthylene	208-96-8	0.38	U 0.38	1.9		1
10138	Anthracene	120-12-7	1.3	J 0.38	1.9		1
10138	Benzo(a)anthracene	56-55-3	4.4	U 0.76	1.9		1
10138	Benzo(a)pyrene	50-32-8	3.1	U 0.76	1.9		1
10138	Benzo(b)fluoranthene	205-99-2	4.4	U 0.76	1.9		1
10138	Benzo(g,h,i)perylene	191-24-2	1.4	J 0.76	1.9		1
10138	Benzo(k)fluoranthene	207-08-9	1.9	J 0.76	1.9		1
10138	Butylbenzylphthalate	85-68-7	6.9	U 6.9	21		1
10138	Di-n-butylphthalate	84-74-2	6.9	U 6.9	21		1
10138	Chrysene	218-01-9	4.1	U 0.38	1.9		1
10138	Dibenz(a,h)anthracene	53-70-3	0.76	U 0.76	1.9		1
10138	Diethylphthalate	84-66-2	6.9	U 6.9	21		1
10138	Dimethylphthalate	131-11-3	6.9	U 6.9	21		1
10138	Fluoranthene	206-44-0	10	U 0.76	1.9		1
10138	Fluorene	86-73-7	0.76	U 0.76	1.9		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.99	J 0.76	1.9		1

\*=This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-010-SA5C-SB-4.0-5.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-010-SA5C-SB-4.0-5.0

**LLI Sample #** SW 6162949  
**LLI Group #** 1225039  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 10:54

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3506 SDG#: DE035-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS Semivolatiles SW-846 8270C SIM</b>							
10138	1-Methylnaphthalene	90-12-0	0.76 U	0.76	1.9	ug/kg	1
10138	2-Methylnaphthalene	91-57-6	0.76 U	0.76	1.9	ug/kg	1
10138	Naphthalene	91-20-3	0.76 U	0.76	1.9	ug/kg	1
10138	N-Nitrosodimethylamine	62-75-9	0.76 U	0.76	1.9	ug/kg	1
10138	Di-n-octylphthalate	117-84-0	6.9 U	6.9	21	ug/kg	1
10138	Phenanthrene	85-01-8	5.7 U	0.76	1.9	ug/kg	1
10138	Pyrene	129-00-0	7.5 U	0.76	1.9	ug/kg	1
<b>GC Volatiles TPH GRO SW-846 8015B mod</b>							
05551	9a TPH by EPA 8015B Gas C5-C12	n.a.	0.2 U	0.2	1.0	mg/kg	22.12
<b>Explosives SW-846 8330A</b>							
10132	4-Amino-2,6-Dinitrotoluene	19406-51-0	86 U	86	170	1000000	1
10132	2-Amino-4,6-Dinitrotoluene	35572-78-2	57 U	57	170	1000000	1
10132	2,6-Diamino-4-nitrotoluene	59229-75-3	110 U	110	340	1000000	1
10132	2,4-Diamino-6-nitrotoluene	6629-29-4	110 U	110	340	1000000	1
10132	1,3-Dinitrobenzene	99-65-0	57 U	57	170	1000000	1
10132	2,4-Dinitrotoluene	121-14-2	57 U	57	170	1000000	1
10132	2,6-Dinitrotoluene	606-20-2	57 U	57	170	1000000	1
10132	HMX	2691-41-0	140 U	140	430	1000000	1
10132	Nitrobenzene	98-95-3	57 U	57	170	1000000	1
10132	Nitroglycerin	55-63-0	1,100 U	1,100	3,400	1000000	1
10132	2-Nitrotoluene	88-72-2	110 U	110	170	1000000	1
10132	3-Nitrotoluene	99-08-1	140 U	140	170	1000000	1
10132	4-Nitrotoluene	99-99-0	110 U	110	170	1000000	1
10132	PETN	78-11-5	1,100 U	1,100	3,400	1000000	1
10132	RDX	121-82-4	71 U	71	170	1000000	1
10132	Tetryl	479-45-8	87 U	87	170	1000000	1
10132	1,3,5-Trinitrobenzene	99-35-4	57 U	57	170	1000000	1
10132	2,4,6-Trinitrotoluene	118-96-7	57 U	57	170	1000000	1

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**Sample Description:** SL-010-SA5C-SB-4.0-5.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-010-SA5C-SB-4.0-5.0

**LLI Sample #** SW 6162949  
**LLI Group #** 1225039  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

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Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3506 SDG#: DE035-06

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>HPLC Organics</b>								
	<b>SW-846 8315A</b>		<b>ug/kg</b>		<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04173	17a Formaldehyde by 8315A	50-00-0	680 U		680	1,700		1
<b>Pesticides/PCBs</b>								
	<b>SW-846 8082</b>		<b>ug/kg</b>		<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10225	Aroclor 5432	63496-31-1	1.1 U		1.1	3.8		1
10225	Aroclor 5442	12642-23-8	1.1 U		1.1	3.8		1
10225	Aroclor 5460	11126-42-4	1.1 U		1.1	3.8		1
10225	PCB-1016	12674-11-2	0.38 U		0.38	1.9		1
10225	PCB-1221	11104-28-2	0.57 U		0.57	1.9		1
10225	PCB-1232	11141-16-5	0.59 U		0.59	1.9		1
10225	PCB-1242	53469-21-9	0.57 U		0.57	1.9		1
10225	PCB-1248	12672-29-6	0.38 U		0.38	1.9		1
10225	PCB-1254	11097-69-1	0.38 U		0.38	1.9		1
10225	PCB-1260	11096-82-5	0.38 U		0.38	1.9		1
10225	PCB-1262	37324-23-5	0.38 U		0.38	1.9		1
10225	PCB-1268	11100-14-4	0.38 U		0.38	1.9		1
The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.								
<b>GC Extractable TPH</b>								
	<b>SW-846 8015B modified</b>		<b>mg/kg</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
10199	EFH (C12-C14)	n.a.	0.46 U		0.46	1.4		1
10199	EFH (C15-C20)	n.a.	0.46 U		0.46	1.4		1
10199	EFH (C21-C30)	n.a.	14		0.46	1.4		1
10199	EFH (C30 - C40)	n.a.	51		0.46	1.4		1
10199	EFH (C8-C11)	n.a.	0.46 U		0.46	1.4		1
<b>GC Miscellaneous</b>								
	<b>SW-846 8015B</b>		<b>ug/kg</b>		<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10501	Ethanol	64-17-5	210 J		110	570		1
10501	Isopropanol	67-63-0	110 U		110	570		1
10501	Methanol	67-56-1	110 U		110	570		1
<b>GC Miscellaneous</b>								
	<b>SW-846 8015B modified</b>		<b>mg/kg</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
08283	Diethylene glycol	111-46-6	5.7 U		5.7	14		1
08283	Ethylene glycol	107-21-1	5.7 U		5.7	14		1
08283	Propylene glycol	57-55-6	5.7 U		5.7	14		1
<b>Terphenyls</b>								
	<b>SW-846 8015B</b>		<b>mg/kg</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
10318	m-Terphenyl	92-06-8	1.7 U		1.7	4.0		1
10318	o-Terphenyl	84-15-1	1.7 U		1.7	4.0		1
10318	p-Terphenyl	92-94-4	1.7 U		1.7	4.0		1
<b>Metals</b>								
	<b>SW-846 6010B</b>		<b>mg/kg</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
01643	Aluminum	7429-90-5	18,200		5.63	22.4		1
07914	Boron	7440-42-8	8.39		0.996	5.60		1
01650	Calcium	7440-70-2	6,100		6.86	22.4		1
01654	Iron	7439-89-6	24,000		5.27	22.4		1

\*—This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-010-SA5C-SB-4.0-5.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-010-SA5C-SB-4.0-5.0

**LLI Sample #** SW 6162949  
**LLI Group #** 1225039  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 10:54

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3506 SDG#: DE035-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Metals</b>							
		<b>SW-846 6010B</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
01656	Lithium	7439-93-2	20.8	0.25	2.2		1
01657	Magnesium	7439-95-4	4,620	2.84	11.2		1
06958	Manganese	7439-96-5	310	0.0873	0.560		1
10145	Phosphorus	7723-14-0	338	0.627	11.2		1
01662	Potassium	7440-09-7	2,870	20.1	56.0		1
01667	Sodium	7440-23-5	253	41.7	112		1
07968	Strontium	7440-24-6	26.7	0.0694	0.560		1
06969	Tin	7440-31-5	2.55 J	1.12	11.2		1
06970	Titanium	7440-32-6	1,330	0.417	1.10		1
10146	Zirconium	7440-67-7	1.94 J	0.940	5.60		1
		<b>SW-846 6020</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
06124	Antimony	7440-36-0	0.152 J	0.0672	0.224		2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	7.89	0.0672	0.448		2
06126	Barium	7440-39-3	139	0.121	0.448		2
06127	Beryllium	7440-41-7	0.815	0.0179	0.112		2
06128	Cadmium	7440-43-9	0.257	0.0403	0.112		2
06131	Chromium	7440-47-3	27.2	0.134	0.448		2
06132	Cobalt	7440-48-4	7.94	0.0224	0.112		2
06133	Copper	7440-50-8	11.8	0.0739	0.448		2
06135	Lead	7439-92-1	9.92	0.0116	0.224		2
06138	Molybdenum	7439-98-7	0.952	0.0560	0.112		2
06139	Nickel	7440-02-0	16.0	0.112	0.448		2
06141	Selenium	7782-49-2	0.178 J	0.0448	0.448		2
06142	Silver	7440-22-4	0.0461 J	0.0134	0.112		2
06145	Thallium	7440-28-0	0.417	0.0336	0.112		2
06148	Vanadium	7440-62-2	56.8	0.0246	0.112		2
06149	Zinc	7440-66-6	87.5	0.627	3.36		2
		<b>SW-846 7471A</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
00159	Mercury	7439-97-6	0.0032 U	0.0032	0.113		1
<b>Wet Chemistry</b>							
		<b>EPA 300.0</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	6.1	0.91	1.1		1
07336	11a Anions by 300.0 - Nitrate	14797-55-8	4.8	0.91	1.7		1
		<b>EPA 314.0</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10147	7a Perchlorate EPA 314.0	14797-73-0	10.3 U	10.3	34.2		1
		<b>SW-846 7199</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
05892	3a Cr VI by EPA 7199	18540-29-9	0.23 U	0.23	1.1		1
		<b>SW-846 9012B</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
05895	21a Cyanide by 9012B	57-12-5	0.20 U	0.20	0.55		1

\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-010-SA5C-SB-4.0-5.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-010-SA5C-SB-4.0-5.0

**LLI Sample #** SW 6162949  
**LLI Group #** 1225039  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 10:54

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3506 SDG#: DE035-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Wet Chemistry</b>		<b>SW-846 9012B</b>	mg/kg	mg/kg	mg/kg	mg/kg	
The sample was analyzed outside of the 14 day holding time for Total Cyanide.							
		<b>ASTM D1498</b>	mV	mV	mV	mV	
01821	Oxidation Reduction Potential	n.a.	471	10.0	10.0		1
The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.							
		<b>SW-846 9045C modified</b>	Std. Units	Std. Units	Std. Units	Std. Units	
00394	22a pH by 9045C	n.a.	8.44	0.0100	0.0100		1
<b>Wet Chemistry</b>		<b>EPA 160.3 modified</b>	%	%	%	%	
11624	28a Moisture Content by 160.3	n.a.	12.4	0.50	0.50		1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.							

### General Sample Comments

State of California Lab Certification No. 2501  
 The volatile analysis was performed on soil from SL-010-SA5C-SB-4.5.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06192	1a Volatile Organics EPA 8260B	SW-846 8260B	1	B103482AA	12/15/2010 01:20	Laura M Krieger	0.88
10326	14a 1,4-Dioxane by 8260B SIM	SW-846 8260B SIM	1	E103493AA	12/16/2010 00:49	Sara E Johnson	24.18
08390	GC/MS - HL Encore Prep	SW-846 5035	1	201034523272	12/11/2010 18:44	Christopher D Meeks	n.a.
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035	1	201034523272	12/11/2010 19:12	Christopher D Meeks	n.a.
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035	2	201034523272	12/11/2010 19:12	Christopher D Meeks	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035	1	201034523272	12/11/2010 18:45	Christopher D Meeks	n.a.
11622	19a NDMA by 1625C	EPA 1625C	1	10354SLC026	01/05/2011 15:05	Timothy J Trees	2
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10350SLB026	01/01/2011 02:51	Ryan P Byrne	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10349SLH026	12/22/2010 23:31	Gregory J Drahovsky	1
11630	NDMA Soil Microwave	SW-846 3546	1	10354SLC026	12/20/2010 14:45	Olivia I Santiago	1

\*=This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-010-SA5C-SB-4.0-5.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-010-SA5C-SB-4.0-5.0

**LLI Sample #** SW 6162949  
**LLI Group #** 1225039  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 10:54

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3506 SDG#: DE035-06

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10349SLH026	12/16/2010 06:15	Joseph S Feister	1
00381	BNA Soil Sonication	SW-846 3550B	1	10350SLB026	12/16/2010 17:30	Sally L Appleyard	1
05551	9a TPH by EPA 8015B Gas C5-C12	TPH GRO SW-846 8015B mod	1	10340B34B	12/14/2010 15:11	Elizabeth J Marin	22.12
06130	GC - 5 g HL Encore Prep	SW-846 5035	1	201034523272	12/11/2010 18:44	Christopher D Meeks	n.a.
10132	20a Energetics by 8330A	SW-846 8330A	1	103480012A	12/16/2010 23:46	Michele D Hamilton	1
04173	17a Formaldehyde by 8315A	SW-846 8315A	1	103480007A	12/16/2010 01:38	Michele D Hamilton	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	103500026A	12/22/2010 02:53	Lindsey K Lafferty	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	103500026A	12/17/2010 00:40	David V Hershey Jr	1
05876	Formaldehyde Solid Extraction	SW-846 8315A	1	103480007A	12/14/2010 15:00	Kelli M Barto	1
11137	Energetics Extraction	SW-846 8330	1	103480012A	12/14/2010 14:45	Wanda F Oswald	1
10199	9a TPH by EPA 8015B Oil/Diesel	SW-846 8015B modified	1	103570006A	12/27/2010 19:56	Heather E Williams	1
10501	25a Alcohols by 8015B	SW-846 8015B	1	103480003A	12/15/2010 18:37	Dustin A Underkoffler	1
08283	27a Glycols by 8015B	SW-846 8015B modified	1	103480019A	12/17/2010 15:22	Robert Brown	1
10318	26a Terphenyls by 8015B	SW-846 8015B	1	103550026A	12/23/2010 12:32	Heather E Williams	1
11238	EPH Extraction - Soils	SW-846 3550B	2	103570006A	12/23/2010 17:00	JoElla L Rice	1
10303	Terphenyls soil prep	SW-846 3550B	1	103550026A	12/22/2010 07:00	Kerrie A Freeburn	1
11551	Direct Inj. Solids Glycol Ext.	SW-846 8015B	1	103480019A	12/15/2010 12:00	Dustin A Underkoffler	1
00380	Direct Injection Solids Ext	SW-846 8015B	1	103480003A	12/15/2010 12:00	Dustin A Underkoffler	1
01643	Aluminum	SW-846 6010B	1	103495708006	12/17/2010 19:44	John P Hook	1
07914	Boron	SW-846 6010B	1	103495708006	12/17/2010 19:44	John P Hook	1
01650	Calcium	SW-846 6010B	1	103495708006	12/17/2010 19:44	John P Hook	1
01654	Iron	SW-846 6010B	1	103495708006	12/17/2010 19:44	John P Hook	1
01656	Lithium	SW-846 6010B	1	103495708006	12/22/2010 16:11	John P Hook	1
01657	Magnesium	SW-846 6010B	1	103495708006	12/17/2010 19:44	John P Hook	1
06958	Manganese	SW-846 6010B	1	103495708006	12/17/2010 19:44	John P Hook	1
10145	Phosphorus	SW-846 6010B	1	103495708006	12/17/2010 19:44	John P Hook	1
01662	Potassium	SW-846 6010B	1	103495708006	12/17/2010 19:44	John P Hook	1
01667	Sodium	SW-846 6010B	1	103495708006	12/17/2010 19:44	John P Hook	1
07968	Strontium	SW-846 6010B	1	103495708006	12/17/2010 19:44	John P Hook	1
06969	Tin	SW-846 6010B	1	103495708006	12/17/2010 19:44	John P Hook	1
06970	Titanium	SW-846 6010B	1	103555708001	12/22/2010 08:12	Joanne M Gates	1
10146	Zirconium	SW-846 6010B	1	103495708006	12/21/2010 08:06	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	103491026005A	12/23/2010 12:10	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103491026005A	12/23/2010 12:10	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103491026005D	12/23/2010 12:10	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103491026005A	12/23/2010 12:10	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103491026005A	12/23/2010 12:10	Choon Y Tian	2

\*=This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-010-SA5C-SB-4.0-5.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-010-SA5C-SB-4.0-5.0

**LLI Sample #** SW 6162949  
**LLI Group #** 1225039  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 10:54

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3506 SDG#: DE035-06

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
06131	Chromium	SW-846 6020	1	103491026005A	12/23/2010	12:10	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103491026005A	12/23/2010	12:10	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103491026005A	12/23/2010	12:10	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103491026005A	12/23/2010	12:10	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103491026005C	12/23/2010	12:10	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103491026005A	12/23/2010	12:10	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103491026005B	12/23/2010	12:10	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103491026005A	12/23/2010	12:10	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103491026005A	12/23/2010	12:10	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103491026005A	12/23/2010	12:10	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	103491026005A	12/23/2010	12:10	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	103495711005	12/16/2010	06:45	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	103495708006	12/15/2010	20:01	Annamaria Stipkovits	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	103555708001	12/21/2010	12:28	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103491026005	12/15/2010	20:03	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	103495711005	12/15/2010	22:15	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10362362201A	12/30/2010	01:44	Ashley M Adams	1
07336	11a Anions by 300.0 - Nitrate	EPA 300.0	1	10362362201A	12/30/2010	01:44	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10362362201A	12/29/2010	02:17	Ashley M Adams	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	10358243201A	12/29/2010	13:08	Ashley M Adams	1
05895	21a Cyanide by 9012B	SW-846 9012B	1	10361102201A	12/27/2010	18:36	Joseph E McKenzie	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10362362201A	12/28/2010	11:00	Erik J Frederiksen	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10362362203A	12/28/2010	14:00	Nancy J Shoop	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	10361102201A	12/27/2010	08:55	Nancy J Shoop	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10348182103B	12/14/2010	13:00	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10348039403B	12/14/2010	13:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10358243201A	12/24/2010	07:00	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	1	10357162401B	12/23/2010	21:06	Scott W Freisher	1

\*—This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-010-SA5C-SB-9.0-10.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-010-SA5C-SB-9.0-10.0

LLI Sample # SW 6162950  
 LLI Group # 1225039  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 11:03

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3507 SDG#: DE035-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
06192	Acetone	67-64-1	6.6 U	6.6	7.9		0.9
06192	Benzene	71-43-2	0.1 U	0.1	4.0		0.9
06192	Bromobenzene	108-86-1	0.13 U	0.13	4.0		0.9
06192	Bromochloromethane	74-97-5	0.33 U	0.33	4.0		0.9
06192	Bromodichloromethane	75-27-4	0.08 U	0.08	4.0		0.9
06192	Bromoform	75-25-2	0.40 U	0.40	4.0		0.9
06192	Bromomethane	74-83-9	0.25 U	0.25	4.0		0.9
06192	2-Butanone	78-93-3	1.2 U	1.2	7.9		0.9
06192	n-Butylbenzene	104-51-8	0.12 U	0.12	4.0		0.9
06192	sec-Butylbenzene	135-98-8	0.06 U	0.06	4.0		0.9
06192	tert-Butylbenzene	98-06-6	0.16 U	0.16	4.0		0.9
06192	Carbon Tetrachloride	56-23-5	0.14 U	0.14	4.0		0.9
06192	Chlorobenzene	108-90-7	0.11 U	0.11	4.0		0.9
06192	Chloroethane	75-00-3	0.13 U	0.13	4.0		0.9
06192	2-Chloroethyl Vinyl Ether	110-75-8	0.30 U	0.30	4.0		0.9
06192	Chloroform	67-66-3	0.12 U	0.12	4.0		0.9
06192	Chloromethane	74-87-3	0.33 U	0.33	4.0		0.9
06192	2-Chlorotoluene	95-49-8	0.14 U	0.14	4.0		0.9
06192	4-Chlorotoluene	106-43-4	0.14 U	0.14	4.0		0.9
06192	Chlorotrifluoroethene	79-38-9	0.50 U	0.50	5.0		0.9
06192	1,2-Dibromo-3-chloropropane	96-12-8	0.69 U	0.69	4.0		0.9
06192	Dibromochloromethane	124-48-1	0.20 U	0.20	4.0		0.9
06192	1,2-Dibromoethane	106-93-4	0.17 U	0.17	4.0		0.9
06192	Dibromomethane	74-95-3	0.24 U	0.24	4.0		0.9
06192	1,2-Dichlorobenzene	95-50-1	0.09 U	0.09	4.0		0.9
06192	1,3-Dichlorobenzene	541-73-1	0.12 U	0.12	4.0		0.9
06192	1,4-Dichlorobenzene	106-46-7	0.16 U	0.16	4.0		0.9
06192	Dichlorodifluoromethane	75-71-8	0.12 U	0.12	4.0		0.9
06192	1,1-Dichloroethane	75-34-3	0.1 U	0.1	4.0		0.9
06192	1,2-Dichloroethane	107-06-2	0.15 U	0.15	4.0		0.9
06192	1,1-Dichloroethene	75-35-4	0.39 U	0.39	4.0		0.9
06192	cis-1,2-Dichloroethene	156-59-2	0.19 U	0.19	4.0		0.9
06192	trans-1,2-Dichloroethene	156-60-5	0.12 U	0.12	4.0		0.9
06192	1,2-Dichloropropane	78-87-5	0.17 U	0.17	4.0		0.9
06192	1,3-Dichloropropane	142-28-9	0.08 U	0.08	4.0		0.9
06192	2,2-Dichloropropane	594-20-7	0.17 U	0.17	4.0		0.9
06192	1,1-Dichloropropene	563-58-6	0.13 U	0.13	4.0		0.9
06192	cis-1,3-Dichloropropene	10061-01-5	0.16 U	0.16	4.0		0.9
06192	trans-1,3-Dichloropropene	10061-02-6	0.17 U	0.17	4.0		0.9
06192	Ethylbenzene	100-41-4	0.06 U	0.06	4.0		0.9
06192	Freon 113	76-13-1	0.11 U	0.11	4.0		0.9
06192	Freon 133a	75-88-7	0.50 U	0.50	5.0		0.9
06192	Hexachlorobutadiene	87-68-3	0.14 U	0.14	4.0		0.9
06192	2-Hexanone	591-78-6	1.6 U	1.6	7.9		0.9
06192	Isopropylbenzene	98-82-8	0.06 U	0.06	4.0		0.9
06192	p-Isopropyltoluene	99-87-6	0.11 U	0.11	4.0		0.9
06192	Methyl Tertiary Butyl Ether	1634-04-4	0.21 U	0.21	4.0		0.9
06192	4-Methyl-2-pentanone	108-10-1	9.4	0.39	7.9		0.9
06192	Methylene Chloride	75-09-2	1.5 J	0.24	4.0		0.9
06192	n-Propylbenzene	103-65-1	0.07 U	0.07	4.0		0.9

\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-010-SA5C-SB-9.0-10.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-010-SA5C-SB-9.0-10.0

LLI Sample # SW 6162950  
 LLI Group # 1225039  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 11:03

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3507 SDG#: DE035-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS Volatiles SW-846 8260B</b>							
06192	Styrene	100-42-5	0.1 U	0.1	4.0		0.9
06192	1,1,1,2-Tetrachloroethane	630-20-6	0.11 U	0.11	4.0		0.9
06192	1,1,2,2-Tetrachloroethane	79-34-5	0.23 U	0.23	4.0		0.9
06192	Tetrachloroethene	127-18-4	0.20 U	0.20	4.0		0.9
06192	Toluene	108-88-3	0.12 J	0.08	4.0		0.9
06192	1,2,3-Trichlorobenzene	87-61-6	0.14 U	0.14	4.0		0.9
06192	1,2,4-Trichlorobenzene	120-82-1	0.18 U	0.18	4.0		0.9
06192	1,1,1-Trichloroethane	71-55-6	0.20 U	0.20	4.0		0.9
06192	1,1,2-Trichloroethane	79-00-5	0.27 U	0.27	4.0		0.9
06192	Trichloroethene	79-01-6	0.15 U	0.15	4.0		0.9
06192	Trichlorofluoromethane	75-69-4	0.29 U	0.29	4.0		0.9
06192	1,2,3-Trichloropropane	96-18-4	0.33 U	0.33	4.0		0.9
06192	1,2,4-Trimethylbenzene	95-63-6	0.40 U	0.40	4.0		0.9
06192	1,3,5-Trimethylbenzene	108-67-8	0.1 U	0.1	4.0		0.9
06192	Vinyl Chloride	75-01-4	0.20 U	0.20	4.0		0.9
06192	m+p-Xylene	179601-23-1	0.17 U	0.17	4.0		0.9
06192	o-Xylene	95-47-6	0.17 U	0.17	4.0		0.9
<b>GC/MS Volatiles SW-846 8260B SIM</b>							
10326	1,4-Dioxane	123-91-1	4.9 U	4.9	15		22.56
<b>GC/MS Semivolatiles EPA 1625C</b>							
11622	N-Nitrosodimethylamine	62-75-9	70.0 J	36.5	73.0		2
<b>GC/MS Semivolatiles SW-846 8270C</b>							
04688	Aniline	62-53-3	180	U 180	550		1
04688	Benzidine	92-87-5	1,300	U 1,300	3,700		1
04688	Benzoic acid	65-85-0	180	U 180	550		1
04688	Benzyl alcohol	100-51-6	180	U 180	550		1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180		1
04688	Carbazole	86-74-8	18	U 18	180		1
04688	4-Chloro-3-methylphenol	59-50-7	37	U 37	180		1
04688	4-Chloroaniline	106-47-8	73	U 73	180		1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180		1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180		1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180		1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180		1
04688	2-Chlorophenol	95-57-8	18	U 18	180		1
04688	4-Chlorophenyl-phenylether	7005-72-3	37	U 37	180		1
04688	Dibenzofuran	132-64-9	18	U 18	180		1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180		1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180		1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180		1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	370		1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180		1
04688	2,4-Dimethylphenol	105-67-9	37	U 37	180		1
04688	3,5-Dimethylphenol	108-68-9	37	U 37	180		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	550		1
04688	2,4-Dinitrophenol	51-28-5	730	U 730	2,200		1

\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-010-SA5C-SB-9.0-10.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-010-SA5C-SB-9.0-10.0

LLI Sample # SW 6162950  
 LLI Group # 1225039  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 11:03

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3507 SDG#: DE035-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04688	2,4-Dinitrotoluene	121-14-2	37	U 37	180		1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180		1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180		1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	21	J 18	370		1
04688	Hexachlorobenzene	118-74-1	18	U 18	180		1
04688	Hexachlorobutadiene	87-68-3	73	U 73	180		1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	550		1
04688	Hexachloroethane	67-72-1	18	U 18	180		1
04688	Isophorone	78-59-1	18	U 18	180		1
04688	2-Methylphenol	95-48-7	37	U 37	180		1
04688	4-Methylphenol	106-44-5	37	U 37	180		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	18	U 18	180		1
04688	3-Nitroaniline	99-09-2	37	U 37	180		1
04688	4-Nitroaniline	100-01-6	73	U 73	180		1
04688	Nitrobenzene	98-95-3	18	U 18	180		1
04688	2-Nitrophenol	88-75-5	18	U 18	180		1
04688	4-Nitrophenol	100-02-7	180	U 180	550		1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180		1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	180	U 180	550		1
04688	Phenol	108-95-2	18	U 18	180		1
04688	1,2,4-Trichlorobenzene	120-82-1	18	U 18	180		1
04688	2,4,5-Trichlorophenol	95-95-4	37	U 37	180		1
04688	2,4,6-Trichlorophenol	88-06-2	37	U 37	180		1
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C SIM</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10138	Acenaphthene	83-32-9	0.73	U 0.73	1.8		1
10138	Acenaphthylene	208-96-8	0.37	U 0.37	1.8		1
10138	Anthracene	120-12-7	0.37	U 0.37	1.8		1
10138	Benzo(a)anthracene	56-55-3	0.92	J 0.73	1.8		1
10138	Benzo(a)pyrene	50-32-8	0.84	J 0.73	1.8		1
10138	Benzo(b)fluoranthene	205-99-2	1.3	J 0.73	1.8		1
10138	Benzo(g,h,i)perylene	191-24-2	0.73	U 0.73	1.8		1
10138	Benzo(k)fluoranthene	207-08-9	0.73	U 0.73	1.8		1
10138	Butylbenzylphthalate	85-68-7	6.6	U 6.6	20		1
10138	Di-n-butylphthalate	84-74-2	6.6	U 6.6	20		1
10138	Chrysene	218-01-9	1.2	J 0.37	1.8		1
10138	Dibenz(a,h)anthracene	53-70-3	0.73	U 0.73	1.8		1
10138	Diethylphthalate	84-66-2	6.6	U 6.6	20		1
10138	Dimethylphthalate	131-11-3	6.6	U 6.6	20		1
10138	Fluoranthene	206-44-0	1.5	J 0.73	1.8		1
10138	Fluorene	86-73-7	0.73	U 0.73	1.8		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.73	U 0.73	1.8		1

\*=This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-010-SA5C-SB-9.0-10.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-010-SA5C-SB-9.0-10.0

**LLI Sample #** SW 6162950  
**LLI Group #** 1225039  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 11:03

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3507 SDG#: DE035-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS Semivolatiles SW-846 8270C SIM</b>							
10138	1-Methylnaphthalene	90-12-0	0.73 U	0.73	1.8	ug/kg	1
10138	2-Methylnaphthalene	91-57-6	0.73 U	0.73	1.8	ug/kg	1
10138	Naphthalene	91-20-3	0.78 J	0.73	1.8	ug/kg	1
10138	N-Nitrosodimethylamine	62-75-9	0.73 U	0.73	1.8	ug/kg	1
10138	Di-n-octylphthalate	117-84-0	6.6 U	6.6	20	ug/kg	1
10138	Phenanthrene	85-01-8	0.73 U	0.73	1.8	ug/kg	1
10138	Pyrene	129-00-0	1.4 J	0.73	1.8	ug/kg	1
<b>GC Volatiles TPH GRO SW-846 8015B mod</b>							
05551	9a TPH by EPA 8015B Gas C5-C12	n.a.	0.2 U	0.2	1.1	mg/kg	24.13
<b>Explosives SW-846 8330A</b>							
10132	4-Amino-2,6-Dinitrotoluene	19406-51-0	82 U	82	160	1000000	1
10132	2-Amino-4,6-Dinitrotoluene	35572-78-2	55 U	55	160	1000000	1
10132	2,6-Diamino-4-nitrotoluene	59229-75-3	110 U	110	330	1000000	1
10132	2,4-Diamino-6-nitrotoluene	6629-29-4	110 U	110	330	1000000	1
10132	1,3-Dinitrobenzene	99-65-0	55 U	55	160	1000000	1
10132	2,4-Dinitrotoluene	121-14-2	55 U	55	160	1000000	1
10132	2,6-Dinitrotoluene	606-20-2	55 U	55	160	1000000	1
10132	HMX	2691-41-0	140 U	140	410	1000000	1
10132	Nitrobenzene	98-95-3	55 U	55	160	1000000	1
10132	Nitroglycerin	55-63-0	1,100 U	1,100	3,300	1000000	1
10132	2-Nitrotoluene	88-72-2	110 U	110	160	1000000	1
10132	3-Nitrotoluene	99-08-1	140 U	140	160	1000000	1
10132	4-Nitrotoluene	99-99-0	110 U	110	160	1000000	1
10132	PETN	78-11-5	1,100 U	1,100	3,300	1000000	1
10132	RDX	121-82-4	68 U	68	160	1000000	1
10132	Tetryl	479-45-8	84 U	84	160	1000000	1
10132	1,3,5-Trinitrobenzene	99-35-4	55 U	55	160	1000000	1
10132	2,4,6-Trinitrotoluene	118-96-7	55 U	55	160	1000000	1

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**Sample Description:** SL-010-SA5C-SB-9.0-10.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-010-SA5C-SB-9.0-10.0

LLI Sample # SW 6162950  
 LLI Group # 1225039  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 11:03

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3507 SDG#: DE035-07

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>HPLC Organics</b>								
	<b>SW-846 8315A</b>		<b>ug/kg</b>		<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04173	17a Formaldehyde by 8315A	50-00-0	670	J	660	1,600		1
<b>Pesticides/PCBs</b>								
	<b>SW-846 8082</b>		<b>ug/kg</b>		<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10225	Aroclor 5432	63496-31-1	1.1	U	1.1	3.6		1
10225	Aroclor 5442	12642-23-8	1.1	U	1.1	3.6		1
10225	Aroclor 5460	11126-42-4	1.1	U	1.1	3.6		1
10225	PCB-1016	12674-11-2	0.36	U	0.36	1.9		1
10225	PCB-1221	11104-28-2	0.55	U	0.55	1.9		1
10225	PCB-1232	11141-16-5	0.57	U	0.57	1.9		1
10225	PCB-1242	53469-21-9	0.55	U	0.55	1.9		1
10225	PCB-1248	12672-29-6	0.36	U	0.36	1.9		1
10225	PCB-1254	11097-69-1	0.36	U	0.36	1.9		1
10225	PCB-1260	11096-82-5	0.44	J	0.36	1.9		1
10225	PCB-1262	37324-23-5	0.36	U	0.36	1.9		1
10225	PCB-1268	11100-14-4	0.36	U	0.36	1.9		1
The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.								
<b>GC Extractable TPH</b>								
	<b>SW-846 8015B modified</b>		<b>mg/kg</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
10199	EFH (C12-C14)	n.a.	0.44	U	0.44	1.3		1
10199	EFH (C15-C20)	n.a.	0.49	J	0.44	1.3		1
10199	EFH (C21-C30)	n.a.	15		0.44	1.3		1
10199	EFH (C30 - C40)	n.a.	60		0.44	1.3		1
10199	EFH (C8-C11)	n.a.	0.44	U	0.44	1.3		1
<b>GC Miscellaneous</b>								
	<b>SW-846 8015B</b>		<b>ug/kg</b>		<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10501	Ethanol	64-17-5	180	J	110	550		1
10501	Isopropanol	67-63-0	110	U	110	550		1
10501	Methanol	67-56-1	110	U	110	550		1
<b>GC Miscellaneous</b>								
	<b>SW-846 8015B modified</b>		<b>mg/kg</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
08283	Diethylene glycol	111-46-6	5.5	U	5.5	14		1
08283	Ethylene glycol	107-21-1	5.5	U	5.5	14		1
08283	Propylene glycol	57-55-6	5.5	U	5.5	14		1
<b>Terphenyls</b>								
	<b>SW-846 8015B</b>		<b>mg/kg</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
10318	m-Terphenyl	92-06-8	1.6	U	1.6	3.8		1
10318	o-Terphenyl	84-15-1	1.6	U	1.6	3.8		1
10318	p-Terphenyl	92-94-4	1.6	U	1.6	3.8		1
<b>Metals</b>								
	<b>SW-846 6010B</b>		<b>mg/kg</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
01643	Aluminum	7429-90-5	15,700		5.45	21.7		1
07914	Boron	7440-42-8	8.15		0.965	5.42		1
01650	Calcium	7440-70-2	3,780		6.65	21.7		1
01654	Iron	7439-89-6	21,500		5.11	21.7		1

\*—This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-010-SA5C-SB-9.0-10.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-010-SA5C-SB-9.0-10.0

**LLI Sample #** SW 6162950  
**LLI Group #** 1225039  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 11:03

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3507 SDG#: DE035-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Metals</b>							
	<b>SW-846 6010B</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
01656	Lithium	7439-93-2	21.9	0.24	2.2		1
01657	Magnesium	7439-95-4	4,280	2.75	10.8		1
06958	Manganese	7439-96-5	259	0.0846	0.542		1
10145	Phosphorus	7723-14-0	389	0.607	10.8		1
01662	Potassium	7440-09-7	2,720	19.5	54.2		1
01667	Sodium	7440-23-5	182	40.4	108		1
07968	Strontium	7440-24-6	26.1	0.0672	0.542		1
06969	Tin	7440-31-5	2.58 J	1.08	10.8		1
06970	Titanium	7440-32-6	1,220	0.412	1.08		1
10146	Zirconium	7440-67-7	2.48 J	0.911	5.42		1
	<b>SW-846 6020</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
06124	Antimony	7440-36-0	0.107 J	0.0651	0.217		2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	5.61	0.0651	0.434		2
06126	Barium	7440-39-3	91.7	0.117	0.434		2
06127	Beryllium	7440-41-7	0.519	0.0174	0.108		2
06128	Cadmium	7440-43-9	0.166	0.0390	0.108		2
06131	Chromium	7440-47-3	19.7	0.130	0.434		2
06132	Cobalt	7440-48-4	5.67	0.0217	0.108		2
06133	Copper	7440-50-8	7.73	0.0716	0.434		2
06135	Lead	7439-92-1	6.22	0.0113	0.217		2
06138	Molybdenum	7439-98-7	1.42	0.0542	0.108		2
06139	Nickel	7440-02-0	11.1	0.108	0.434		2
06141	Selenium	7782-49-2	0.160 J	0.0434	0.434		2
06142	Silver	7440-22-4	0.0196 J	0.0130	0.108		2
06145	Thallium	7440-28-0	0.268	0.0325	0.108		2
06148	Vanadium	7440-62-2	35.1	0.0239	0.108		2
06149	Zinc	7440-66-6	65.3	0.607	3.25		2
	<b>SW-846 7471A</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
00159	Mercury	7439-97-6	0.0030 U	0.0030	0.105		1
<b>Wet Chemistry</b>							
	<b>EPA 300.0</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	4.7	0.88	1.1		1
07336	11a Anions by 300.0 - Nitrate	14797-55-8	0.88 U	0.88	1.6		1
	<b>EPA 314.0</b>		<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.9 U	9.9	32.9		1
	<b>SW-846 7199</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
05892	3a Cr VI by EPA 7199	18540-29-9	0.34 J	0.22	1.1		1
	<b>SW-846 9012B</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
05895	21a Cyanide by 9012B	57-12-5	0.19 U	0.19	0.53		1

\*-This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-010-SA5C-SB-9.0-10.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-010-SA5C-SB-9.0-10.0

**LLI Sample #** SW 6162950  
**LLI Group #** 1225039  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 11:03

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3507 SDG#: DE035-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Wet Chemistry</b>			mg/kg	mg/kg	mg/kg	mg/kg	
The sample was analyzed outside of the 14 day holding time for Total Cyanide.							
<b>ASTM D1498</b>			mV	mV	mV	mV	
01821	Oxidation Reduction Potential	n.a.	455	10.0	10.0		1
The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.							
<b>SW-846 9045C modified</b>			Std. Units	Std. Units	Std. Units	Std. Units	
00394	22a pH by 9045C	n.a.	8.52	0.0100	0.0100		1
<b>Wet Chemistry</b>			%	%	%	%	
<b>EPA 160.3 modified</b>							
11624	28a Moisture Content by 160.3	n.a.	8.7	0.50	0.50		1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.							

### General Sample Comments

State of California Lab Certification No. 2501  
 The volatile analysis was performed on soil from SL-010-SA5C-SB-9.5.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06192	1a Volatile Organics EPA 8260B	SW-846 8260B	1	B103482AA	12/15/2010 01:42	Laura M Krieger	0.9
10326	14a 1,4-Dioxane by 8260B SIM	SW-846 8260B SIM	1	E103493AA	12/16/2010 01:09	Sara E Johnson	22.56
08390	GC/MS - HL Encore Prep	SW-846 5035	1	201034523272	12/11/2010 18:48	Christopher D Meeks	n.a.
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035	1	201034523272	12/11/2010 19:12	Christopher D Meeks	n.a.
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035	2	201034523272	12/11/2010 19:12	Christopher D Meeks	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035	1	201034523272	12/11/2010 18:48	Christopher D Meeks	n.a.
11622	19a NDMA by 1625C	EPA 1625C	1	10354SLC026	01/05/2011 15:22	Timothy J Trees	2
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10350SLB026	01/01/2011 03:16	Ryan P Byrne	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10349SLH026	12/23/2010 00:05	Gregory J Drahovsky	1
11630	NDMA Soil Microwave	SW-846 3546	1	10354SLC026	12/20/2010 14:45	Olivia I Santiago	1

\*=This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-010-SA5C-SB-9.0-10.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-010-SA5C-SB-9.0-10.0

**LLI Sample #** SW 6162950  
**LLI Group #** 1225039  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 11:03

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3507 SDG#: DE035-07

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10349SLH026	12/16/2010 06:15	Joseph S Feister	1
00381	BNA Soil Sonication	SW-846 3550B	1	10350SLB026	12/16/2010 17:30	Sally L Appleyard	1
05551	9a TPH by EPA 8015B Gas C5-C12	TPH GRO SW-846 8015B mod	1	10340B34B	12/14/2010 15:47	Elizabeth J Marin	24.13
06130	GC - 5 g HL Encore Prep	SW-846 5035	1	201034523272	12/11/2010 18:48	Christopher D Meeks	n.a.
10132	20a Energetics by 8330A	SW-846 8330A	1	103480012A	12/17/2010 00:28	Michele D Hamilton	1
04173	17a Formaldehyde by 8315A	SW-846 8315A	1	103480007A	12/16/2010 01:48	Michele D Hamilton	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	103500026A	12/22/2010 03:12	Lindsey K Lafferty	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	103500026A	12/17/2010 00:40	David V Hershey Jr	1
05876	Formaldehyde Solid Extraction	SW-846 8315A	1	103480007A	12/14/2010 15:00	Kelli M Barto	1
11137	Energetics Extraction	SW-846 8330	1	103480012A	12/14/2010 14:45	Wanda F Oswald	1
10199	9a TPH by EPA 8015B Oil/Diesel	SW-846 8015B modified	1	103570006A	12/27/2010 20:46	Heather E Williams	1
10501	25a Alcohols by 8015B	SW-846 8015B	1	103480003A	12/15/2010 18:51	Dustin A Underkoffler	1
08283	27a Glycols by 8015B	SW-846 8015B modified	1	103480019A	12/17/2010 14:50	Robert Brown	1
10318	26a Terphenyls by 8015B	SW-846 8015B	1	103550026A	12/23/2010 19:16	Heather E Williams	1
11238	EPH Extraction - Soils	SW-846 3550B	2	103570006A	12/23/2010 17:00	JoElla L Rice	1
10303	Terphenyls soil prep	SW-846 3550B	1	103550026A	12/22/2010 07:00	Kerrie A Freeburn	1
11551	Direct Inj. Solids Glycol Ext.	SW-846 8015B	1	103480019A	12/15/2010 12:00	Dustin A Underkoffler	1
00380	Direct Injection Solids Ext	SW-846 8015B	1	103480003A	12/15/2010 12:00	Dustin A Underkoffler	1
01643	Aluminum	SW-846 6010B	1	103495708006	12/17/2010 19:48	John P Hook	1
07914	Boron	SW-846 6010B	1	103495708006	12/17/2010 19:48	John P Hook	1
01650	Calcium	SW-846 6010B	1	103495708006	12/17/2010 19:48	John P Hook	1
01654	Iron	SW-846 6010B	1	103495708006	12/17/2010 19:48	John P Hook	1
01656	Lithium	SW-846 6010B	1	103495708006	12/21/2010 08:09	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	103495708006	12/17/2010 19:48	John P Hook	1
06958	Manganese	SW-846 6010B	1	103495708006	12/17/2010 19:48	John P Hook	1
10145	Phosphorus	SW-846 6010B	1	103495708006	12/17/2010 19:48	John P Hook	1
01662	Potassium	SW-846 6010B	1	103495708006	12/17/2010 19:48	John P Hook	1
01667	Sodium	SW-846 6010B	1	103495708006	12/17/2010 19:48	John P Hook	1
07968	Strontium	SW-846 6010B	1	103495708006	12/17/2010 19:48	John P Hook	1
06969	Tin	SW-846 6010B	1	103495708006	12/17/2010 19:48	John P Hook	1
06970	Titanium	SW-846 6010B	1	103555708001	12/22/2010 08:15	Joanne M Gates	1
10146	Zirconium	SW-846 6010B	1	103495708006	12/21/2010 08:09	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	103491026005A	12/23/2010 12:13	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103491026005A	12/23/2010 12:13	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103491026005D	12/23/2010 12:13	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103491026005A	12/23/2010 12:13	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103491026005A	12/23/2010 12:13	Choon Y Tian	2

\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-010-SA5C-SB-9.0-10.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-010-SA5C-SB-9.0-10.0

**LLI Sample #** SW 6162950  
**LLI Group #** 1225039  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 11:03

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3507 SDG#: DE035-07

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06131	Chromium	SW-846 6020	1	103491026005A	12/23/2010 12:13	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103491026005A	12/23/2010 12:13	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103491026005A	12/23/2010 12:13	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103491026005A	12/23/2010 12:13	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103491026005C	12/23/2010 12:13	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103491026005A	12/23/2010 12:13	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103491026005B	12/23/2010 12:13	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103491026005A	12/23/2010 12:13	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103491026005A	12/23/2010 12:13	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103491026005A	12/23/2010 12:13	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	103491026005A	12/23/2010 12:13	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	103495711005	12/16/2010 06:48	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	103495708006	12/15/2010 20:01	Annamaria Stipkovits	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	103555708001	12/21/2010 12:28	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103491026005	12/15/2010 20:03	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	103495711005	12/15/2010 22:15	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10362362201A	12/30/2010 01:58	Ashley M Adams	1
07336	11a Anions by 300.0 - Nitrate	EPA 300.0	1	10362362201A	12/30/2010 01:58	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10362362201A	12/29/2010 02:42	Ashley M Adams	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	10358243201A	12/29/2010 13:21	Ashley M Adams	1
05895	21a Cyanide by 9012B	SW-846 9012B	1	10361102201A	12/27/2010 18:37	Joseph E McKenzie	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10362362201A	12/28/2010 11:00	Erik J Frederiksen	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10362362203A	12/28/2010 14:00	Nancy J Shoop	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	10361102201A	12/27/2010 08:55	Nancy J Shoop	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10348182103B	12/14/2010 13:00	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10348039403B	12/14/2010 13:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10358243201A	12/24/2010 07:00	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	1	10357162401B	12/23/2010 21:06	Scott W Freisher	1

\*-This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-008-SA5C-SB-4.0-5.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-008-SA5C-SB-4.0-5.0

LLI Sample # SW 6162951  
 LLI Group # 1225039  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 12:18

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3508 SDG#: DE035-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
06192	Acetone	67-64-1	7.7 U	7.7	9.2		1
06192	Benzene	71-43-2	0.12 U	0.12	4.6		1
06192	Bromobenzene	108-86-1	0.15 U	0.15	4.6		1
06192	Bromochloromethane	74-97-5	0.38 U	0.38	4.6		1
06192	Bromodichloromethane	75-27-4	0.09 U	0.09	4.6		1
06192	Bromoform	75-25-2	0.46 U	0.46	4.6		1
06192	Bromomethane	74-83-9	0.29 U	0.29	4.6		1
06192	2-Butanone	78-93-3	1.4 U	1.4	9.2		1
06192	n-Butylbenzene	104-51-8	0.14 U	0.14	4.6		1
06192	sec-Butylbenzene	135-98-8	0.07 U	0.07	4.6		1
06192	tert-Butylbenzene	98-06-6	0.18 U	0.18	4.6		1
06192	Carbon Tetrachloride	56-23-5	0.16 U	0.16	4.6		1
06192	Chlorobenzene	108-90-7	0.13 U	0.13	4.6		1
06192	Chloroethane	75-00-3	0.15 U	0.15	4.6		1
06192	2-Chloroethyl Vinyl Ether	110-75-8	0.35 U	0.35	4.6		1
06192	Chloroform	67-66-3	0.14 U	0.14	4.6		1
06192	Chloromethane	74-87-3	0.38 U	0.38	4.6		1
06192	2-Chlorotoluene	95-49-8	0.16 U	0.16	4.6		1
06192	4-Chlorotoluene	106-43-4	0.16 U	0.16	4.6		1
06192	Chlorotrifluoroethene	79-38-9	0.58 U	0.58	5.8		1
06192	1,2-Dibromo-3-chloropropane	96-12-8	0.81 U	0.81	4.6		1
06192	Dibromochloromethane	124-48-1	0.23 U	0.23	4.6		1
06192	1,2-Dibromoethane	106-93-4	0.20 U	0.20	4.6		1
06192	Dibromomethane	74-95-3	0.28 U	0.28	4.6		1
06192	1,2-Dichlorobenzene	95-50-1	0.10 U	0.10	4.6		1
06192	1,3-Dichlorobenzene	541-73-1	0.14 U	0.14	4.6		1
06192	1,4-Dichlorobenzene	106-46-7	0.18 U	0.18	4.6		1
06192	Dichlorodifluoromethane	75-71-8	0.14 U	0.14	4.6		1
06192	1,1-Dichloroethane	75-34-3	0.12 U	0.12	4.6		1
06192	1,2-Dichloroethane	107-06-2	0.17 U	0.17	4.6		1
06192	1,1-Dichloroethene	75-35-4	0.45 U	0.45	4.6		1
06192	cis-1,2-Dichloroethene	156-59-2	0.22 U	0.22	4.6		1
06192	trans-1,2-Dichloroethene	156-60-5	0.14 U	0.14	4.6		1
06192	1,2-Dichloropropane	78-87-5	0.20 U	0.20	4.6		1
06192	1,3-Dichloropropane	142-28-9	0.09 U	0.09	4.6		1
06192	2,2-Dichloropropane	594-20-7	0.20 U	0.20	4.6		1
06192	1,1-Dichloropropene	563-58-6	0.15 U	0.15	4.6		1
06192	cis-1,3-Dichloropropene	10061-01-5	0.18 U	0.18	4.6		1
06192	trans-1,3-Dichloropropene	10061-02-6	0.20 U	0.20	4.6		1
06192	Ethylbenzene	100-41-4	0.07 U	0.07	4.6		1
06192	Freon 113	76-13-1	0.13 U	0.13	4.6		1
06192	Freon 133a	75-88-7	0.58 U	0.58	5.8		1
06192	Hexachlorobutadiene	87-68-3	0.16 U	0.16	4.6		1
06192	2-Hexanone	591-78-6	1.8 U	1.8	9.2		1
06192	Isopropylbenzene	98-82-8	0.07 U	0.07	4.6		1
06192	p-Isopropyltoluene	99-87-6	0.13 U	0.13	4.6		1
06192	Methyl Tertiary Butyl Ether	1634-04-4	0.24 U	0.24	4.6		1
06192	4-Methyl-2-pentanone	108-10-1	0.45 U	0.45	9.2		1
06192	Methylene Chloride	75-09-2	1.0 J	0.28	4.6		1
06192	n-Propylbenzene	103-65-1	0.08 U	0.08	4.6		1

\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-008-SA5C-SB-4.0-5.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-008-SA5C-SB-4.0-5.0

LLI Sample # SW 6162951  
 LLI Group # 1225039  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 12:18

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3508 SDG#: DE035-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
06192	Styrene	100-42-5	0.12 U	0.12	4.6		1
06192	1,1,1,2-Tetrachloroethane	630-20-6	0.13 U	0.13	4.6		1
06192	1,1,2,2-Tetrachloroethane	79-34-5	0.26 U	0.26	4.6		1
06192	Tetrachloroethene	127-18-4	0.23 U	0.23	4.6		1
06192	Toluene	108-88-3	0.12 J	0.09	4.6		1
06192	1,2,3-Trichlorobenzene	87-61-6	0.16 U	0.16	4.6		1
06192	1,2,4-Trichlorobenzene	120-82-1	0.21 U	0.21	4.6		1
06192	1,1,1-Trichloroethane	71-55-6	0.23 U	0.23	4.6		1
06192	1,1,2-Trichloroethane	79-00-5	0.31 U	0.31	4.6		1
06192	Trichloroethene	79-01-6	0.17 U	0.17	4.6		1
06192	Trichlorofluoromethane	75-69-4	0.33 U	0.33	4.6		1
06192	1,2,3-Trichloropropane	96-18-4	0.38 U	0.38	4.6		1
06192	1,2,4-Trimethylbenzene	95-63-6	0.46 U	0.46	4.6		1
06192	1,3,5-Trimethylbenzene	108-67-8	0.12 U	0.12	4.6		1
06192	Vinyl Chloride	75-01-4	0.23 U	0.23	4.6		1
06192	m+p-Xylene	179601-23-1	0.20 U	0.20	4.6		1
06192	o-Xylene	95-47-6	0.20 U	0.20	4.6		1
<b>GC/MS Volatiles</b>		<b>SW-846 8260B SIM</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10326	1,4-Dioxane	123-91-1	5.2 U	5.2	16		22.81
<b>GC/MS Semivolatiles</b>		<b>SW-846 8270C</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04688	Aniline	62-53-3	190	U 190	580		1
04688	Benzidine	92-87-5	1,300	U 1,300	3,800		1
04688	Benzoic acid	65-85-0	190	U 190	580		1
04688	Benzyl alcohol	100-51-6	190	U 190	580		1
04688	4-Bromophenyl-phenylether	101-55-3	19	U 19	190		1
04688	Carbazole	86-74-8	19	U 19	190		1
04688	4-Chloro-3-methylphenol	59-50-7	38	U 38	190		1
04688	4-Chloroaniline	106-47-8	77	U 77	190		1
04688	bis(2-Chloroethoxy)methane	111-91-1	19	U 19	190		1
04688	bis(2-Chloroethyl)ether	111-44-4	19	U 19	190		1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	19	U 19	190		1
04688	2-Chloronaphthalene	91-58-7	19	U 19	190		1
04688	2-Chlorophenol	95-57-8	19	U 19	190		1
04688	4-Chlorophenyl-phenylether	7005-72-3	38	U 38	190		1
04688	Dibenzofuran	132-64-9	19	U 19	190		1
04688	1,2-Dichlorobenzene	95-50-1	19	U 19	190		1
04688	1,3-Dichlorobenzene	541-73-1	19	U 19	190		1
04688	1,4-Dichlorobenzene	106-46-7	19	U 19	190		1
04688	3,3'-Dichlorobenzidine	91-94-1	120	U 120	380		1
04688	2,4-Dichlorophenol	120-83-2	19	U 19	190		1
04688	2,4-Dimethylphenol	105-67-9	38	U 38	190		1
04688	3,5-Dimethylphenol	108-68-9	38	U 38	190		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	190	U 190	580		1
04688	2,4-Dinitrophenol	51-28-5	770	U 770	2,300		1
04688	2,4-Dinitrotoluene	121-14-2	38	U 38	190		1
04688	2,6-Dinitrotoluene	606-20-2	19	U 19	190		1
04688	1,2-Diphenylhydrazine	122-66-7	19	U 19	190		1

\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-008-SA5C-SB-4.0-5.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-008-SA5C-SB-4.0-5.0

**LLI Sample #** SW 6162951  
**LLI Group #** 1225039  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 12:18

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3508 SDG#: DE035-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04688	bis(2-Ethylhexyl)phthalate	117-81-7	21	J 19	380		1
04688	Hexachlorobenzene	118-74-1	19	U 19	190		1
04688	Hexachlorobutadiene	87-68-3	77	U 77	190		1
04688	Hexachlorocyclopentadiene	77-47-4	190	U 190	580		1
04688	Hexachloroethane	67-72-1	19	U 19	190		1
04688	Isophorone	78-59-1	19	U 19	190		1
04688	2-Methylphenol	95-48-7	38	U 38	190		1
04688	4-Methylphenol	106-44-5	38	U 38	190		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	19	U 19	190		1
04688	3-Nitroaniline	99-09-2	38	U 38	190		1
04688	4-Nitroaniline	100-01-6	77	U 77	190		1
04688	Nitrobenzene	98-95-3	19	U 19	190		1
04688	2-Nitrophenol	88-75-5	19	U 19	190		1
04688	4-Nitrophenol	100-02-7	190	U 190	580		1
04688	N-Nitroso-di-n-propylamine	621-64-7	19	U 19	190		1
04688	N-Nitrosodiphenylamine	86-30-6	19	U 19	190		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	190	U 190	580		1
04688	Phenol	108-95-2	19	U 19	190		1
04688	1,2,4-Trichlorobenzene	120-82-1	19	U 19	190		1
04688	2,4,5-Trichlorophenol	95-95-4	38	U 38	190		1
04688	2,4,6-Trichlorophenol	88-06-2	38	U 38	190		1
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C SIM</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10138	Acenaphthene	83-32-9	0.77	U 0.77	1.9		1
10138	Acenaphthylene	208-96-8	0.38	U 0.38	1.9		1
10138	Anthracene	120-12-7	0.38	U 0.38	1.9		1
10138	Benzo(a)anthracene	56-55-3	0.77	U 0.77	1.9		1
10138	Benzo(a)pyrene	50-32-8	0.77	U 0.77	1.9		1
10138	Benzo(b)fluoranthene	205-99-2	0.77	U 0.77	1.9		1
10138	Benzo(g,h,i)perylene	191-24-2	0.77	U 0.77	1.9		1
10138	Benzo(k)fluoranthene	207-08-9	0.77	U 0.77	1.9		1
10138	Butylbenzylphthalate	85-68-7	6.9	U 6.9	21		1
10138	Di-n-butylphthalate	84-74-2	6.9	U 6.9	21		1
10138	Chrysene	218-01-9	0.38	U 0.38	1.9		1
10138	Dibenz(a,h)anthracene	53-70-3	0.77	U 0.77	1.9		1
10138	Diethylphthalate	84-66-2	6.9	U 6.9	21		1
10138	Dimethylphthalate	131-11-3	6.9	U 6.9	21		1
10138	Fluoranthene	206-44-0	0.77	U 0.77	1.9		1
10138	Fluorene	86-73-7	0.77	U 0.77	1.9		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.77	U 0.77	1.9		1
10138	1-Methylnaphthalene	90-12-0	0.77	U 0.77	1.9		1
10138	2-Methylnaphthalene	91-57-6	0.77	U 0.77	1.9		1
10138	Naphthalene	91-20-3	0.89	J 0.77	1.9		1

\*=This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-008-SA5C-SB-4.0-5.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-008-SA5C-SB-4.0-5.0

LLI Sample # SW 6162951  
 LLI Group # 1225039  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 12:18

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3508 SDG#: DE035-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS Semivolatiles</b>		<b>SW-846 8270C SIM</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10138	N-Nitrosodimethylamine	62-75-9	0.77 U	0.77	1.9		1
10138	Di-n-octylphthalate	117-84-0	6.9 U	6.9	21		1
10138	Phenanthrene	85-01-8	0.77 U	0.77	1.9		1
10138	Pyrene	129-00-0	0.77 U	0.77	1.9		1

<b>Pesticides/PCBs</b>		<b>SW-846 8082</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>
10225	Aroclor 5432	63496-31-1	1.2 U	1.2	3.8	1
10225	Aroclor 5442	12642-23-8	1.2 U	1.2	3.8	1
10225	Aroclor 5460	11126-42-4	1.2 U	1.2	3.8	1
10225	PCB-1016	12674-11-2	0.38 U	0.38	2.0	1
10225	PCB-1221	11104-28-2	0.58 U	0.58	2.0	1
10225	PCB-1232	11141-16-5	0.60 U	0.60	2.0	1
10225	PCB-1242	53469-21-9	0.58 U	0.58	2.0	1
10225	PCB-1248	12672-29-6	0.38 U	0.38	2.0	1
10225	PCB-1254	11097-69-1	0.38 U	0.38	2.0	1
10225	PCB-1260	11096-82-5	0.49 J	0.38	2.0	1
10225	PCB-1262	37324-23-5	0.38 U	0.38	2.0	1
10225	PCB-1268	11100-14-4	0.38 U	0.38	2.0	1

The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.

<b>Metals</b>		<b>SW-846 6010B</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>
01643	Aluminum	7429-90-5	29,800	5.73	22.8	1
07914	Boron	7440-42-8	8.96	1.01	5.70	1
01650	Calcium	7440-70-2	9,770	6.98	22.8	1
01654	Iron	7439-89-6	34,500	10.7	45.6	2
01656	Lithium	7439-93-2	26.4	0.25	2.3	1
01657	Magnesium	7439-95-4	7,610	2.89	11.4	1
06958	Manganese	7439-96-5	350	0.0889	0.570	1
10145	Phosphorus	7723-14-0	253	0.638	11.4	1
01662	Potassium	7440-09-7	3,640	20.5	57.0	1
01667	Sodium	7440-23-5	350	42.5	114	1
07968	Strontium	7440-24-6	41.6	0.0706	0.570	1
06969	Tin	7440-31-5	2.70 J	1.14	11.4	1
06970	Titanium	7440-32-6	1,710	0.416	1.10	1
10146	Zirconium	7440-67-7	3.77 J	0.957	5.70	1

		<b>SW-846 6020</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>
06124	Antimony	7440-36-0	0.237	0.0684	0.228	2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	8.76	0.0684	0.456	2
06126	Barium	7440-39-3	158	0.123	0.456	2
06127	Beryllium	7440-41-7	0.870	0.0182	0.114	2
06128	Cadmium	7440-43-9	0.247	0.0410	0.114	2
06131	Chromium	7440-47-3	29.9	0.137	0.456	2
06132	Cobalt	7440-48-4	7.40	0.0228	0.114	2
06133	Copper	7440-50-8	10.6	0.0752	0.456	2

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 Shaded result = The results or reporting limit exceeded the client-provided action limit.



# Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

**Sample Description:** SL-008-SA5C-SB-4.0-5.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-008-SA5C-SB-4.0-5.0

LLI Sample # SW 6162951  
 LLI Group # 1225039  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 12:18

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3508 SDG#: DE035-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Metals</b>							
		<b>SW-846 6020</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
06135	Lead	7439-92-1	11.6	0.0118	0.228		2
06138	Molybdenum	7439-98-7	0.586	0.0570	0.114		2
06139	Nickel	7440-02-0	14.9	0.114	0.456		2
06141	Selenium	7782-49-2	0.307 J	0.0456	0.456		2
06142	Silver	7440-22-4	0.0421 J	0.0137	0.114		2
06145	Thallium	7440-28-0	0.484	0.0342	0.114		2
06148	Vanadium	7440-62-2	60.3	0.0251	0.114		2
06149	Zinc	7440-66-6	99.1	0.638	3.42		2
		<b>SW-846 7471A</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
00159	Mercury	7439-97-6	0.0032 U	0.0032	0.112		1
<b>Wet Chemistry</b>							
		<b>EPA 300.0</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	6.3	0.92	1.2		1
		<b>EPA 314.0</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10147	7a Perchlorate EPA 314.0	14797-73-0	10.4 U	10.4	34.5		1
		<b>SW-846 7199</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
05892	3a Cr VI by EPA 7199	18540-29-9	0.31 J	0.23	1.2		1
		<b>ASTM D1498</b>	<b>mV</b>	<b>mV</b>	<b>mV</b>	<b>mV</b>	
01821	Oxidation Reduction Potential	n.a.	493	10.0	10.0		1
The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.							
		<b>SW-846 9045C modified</b>	<b>Std. Units</b>	<b>Std. Units</b>	<b>Std. Units</b>	<b>Std. Units</b>	
00394	22a pH by 9045C	n.a.	8.45	0.0100	0.0100		1
<b>Wet Chemistry</b>							
		<b>EPA 160.3 modified</b>	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>	
11624	28a Moisture Content by 160.3	n.a.	13.1	0.50	0.50		1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.							

### General Sample Comments

State of California Lab Certification No. 2501  
 The volatile analysis was performed on soil from SL-008-SA5C-SB-4.5.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

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 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-008-SA5C-SB-4.0-5.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-008-SA5C-SB-4.0-5.0

**LLI Sample #** SW 6162951  
**LLI Group #** 1225039  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 12:18

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3508 SDG#: DE035-08

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06192	1a Volatile Organics EPA 8260B	SW-846 8260B	1	B103482AA	12/15/2010 02:05	Laura M Krieger	1
10326	14a 1,4-Dioxane by 8260B SIM	SW-846 8260B SIM	1	E103493AA	12/16/2010 01:28	Sara E Johnson	22.81
08390	GC/MS - HL Encore Prep	SW-846 5035	1	201034523272	12/11/2010 18:51	Christopher D Meeks	n.a.
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035	1	201034523272	12/11/2010 19:12	Christopher D Meeks	n.a.
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035	2	201034523272	12/11/2010 19:12	Christopher D Meeks	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035	1	201034523272	12/11/2010 18:52	Christopher D Meeks	n.a.
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10350SLB026	01/01/2011 03:41	Ryan P Byrne	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10349SLH026	12/23/2010 00:39	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10349SLH026	12/16/2010 06:15	Joseph S Feister	1
00381	BNA Soil Sonication	SW-846 3550B	1	10350SLB026	12/16/2010 17:30	Sally L Appleyard	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	103500026A	12/22/2010 03:30	Lindsey K Lafferty	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	103500026A	12/17/2010 00:40	David V Hershey Jr	1
01643	Aluminum	SW-846 6010B	1	103495708006	12/17/2010 19:51	John P Hook	1
07914	Boron	SW-846 6010B	1	103495708006	12/17/2010 19:51	John P Hook	1
01650	Calcium	SW-846 6010B	1	103495708006	12/17/2010 19:51	John P Hook	1
01654	Iron	SW-846 6010B	1	103495708006	12/22/2010 16:15	John P Hook	2
01656	Lithium	SW-846 6010B	1	103495708006	12/21/2010 08:13	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	103495708006	12/17/2010 19:51	John P Hook	1
06958	Manganese	SW-846 6010B	1	103495708006	12/17/2010 19:51	John P Hook	1
10145	Phosphorus	SW-846 6010B	1	103495708006	12/17/2010 19:51	John P Hook	1
01662	Potassium	SW-846 6010B	1	103495708006	12/17/2010 19:51	John P Hook	1
01667	Sodium	SW-846 6010B	1	103495708006	12/17/2010 19:51	John P Hook	1
07968	Strontium	SW-846 6010B	1	103495708006	12/17/2010 19:51	John P Hook	1
06969	Tin	SW-846 6010B	1	103495708006	12/17/2010 19:51	John P Hook	1
06970	Titanium	SW-846 6010B	1	103555708001	12/22/2010 08:19	Joanne M Gates	1
10146	Zirconium	SW-846 6010B	1	103495708006	12/21/2010 08:13	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	103491026005A	12/23/2010 12:16	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103491026005A	12/23/2010 12:16	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103491026005D	12/23/2010 12:16	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103491026005A	12/23/2010 12:16	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103491026005A	12/23/2010 12:16	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103491026005A	12/23/2010 18:40	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103491026005A	12/23/2010 18:40	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103491026005A	12/23/2010 18:40	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103491026005A	12/23/2010 12:16	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103491026005C	12/23/2010 12:16	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103491026005A	12/23/2010 18:40	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103491026005B	12/23/2010 12:16	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103491026005A	12/23/2010 12:16	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103491026005A	12/23/2010 12:16	Choon Y Tian	2

\*=This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-008-SA5C-SB-4.0-5.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-008-SA5C-SB-4.0-5.0

**LLI Sample #** SW 6162951  
**LLI Group #** 1225039  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 12:18

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3508 SDG#: DE035-08

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
06148	Vanadium	SW-846 6020	1	103491026005A	12/23/2010	18:40	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	103491026005A	12/23/2010	12:16	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	103495711005	12/16/2010	06:49	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	103495708006	12/15/2010	20:01	Annamaria Stipkovits	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	103555708001	12/21/2010	12:28	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103491026005	12/15/2010	20:03	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	103495711005	12/15/2010	22:15	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10362362201A	12/30/2010	02:13	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10362362201A	12/29/2010	03:06	Ashley M Adams	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	10358243201A	12/29/2010	13:34	Ashley M Adams	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10362362201A	12/28/2010	11:00	Erik J Frederiksen	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10362362203A	12/28/2010	14:00	Nancy J Shoop	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10348182103B	12/14/2010	13:00	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10348039403B	12/14/2010	13:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10358243201A	12/24/2010	07:00	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	1	10349162402A	12/15/2010	09:36	William C Schwebel	1

\*-This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-008-SA5C-SB-8.0-9.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-008-SA5C-SB-8.0-9.0

**LLI Sample #** SW 6162952  
**LLI Group #** 1225039  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 12:22

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3509 SDG#: DE035-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04688	Aniline	62-53-3	180	U 180	550		1
04688	Benzidine	92-87-5	1,300	U 1,300	3,700		1
04688	Benzoic acid	65-85-0	180	U 180	550		1
04688	Benzyl alcohol	100-51-6	180	U 180	550		1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180		1
04688	Carbazole	86-74-8	18	U 18	180		1
04688	4-Chloro-3-methylphenol	59-50-7	37	U 37	180		1
04688	4-Chloroaniline	106-47-8	73	U 73	180		1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180		1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180		1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180		1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180		1
04688	2-Chlorophenol	95-57-8	18	U 18	180		1
04688	4-Chlorophenyl-phenylether	7005-72-3	37	U 37	180		1
04688	Dibenzofuran	132-64-9	18	U 18	180		1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180		1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180		1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180		1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	370		1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180		1
04688	2,4-Dimethylphenol	105-67-9	37	U 37	180		1
04688	3,5-Dimethylphenol	108-68-9	37	U 37	180		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	550		1
04688	2,4-Dinitrophenol	51-28-5	730	U 730	2,200		1
04688	2,4-Dinitrotoluene	121-14-2	37	U 37	180		1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180		1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180		1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	18	U 18	370		1
04688	Hexachlorobenzene	118-74-1	18	U 18	180		1
04688	Hexachlorobutadiene	87-68-3	73	U 73	180		1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	550		1
04688	Hexachloroethane	67-72-1	18	U 18	180		1
04688	Isophorone	78-59-1	18	U 18	180		1
04688	2-Methylphenol	95-48-7	37	U 37	180		1
04688	4-Methylphenol	106-44-5	37	U 37	180		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	18	U 18	180		1
04688	3-Nitroaniline	99-09-2	37	U 37	180		1
04688	4-Nitroaniline	100-01-6	73	U 73	180		1
04688	Nitrobenzene	98-95-3	18	U 18	180		1
04688	2-Nitrophenol	88-75-5	18	U 18	180		1
04688	4-Nitrophenol	100-02-7	180	U 180	550		1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180		1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	180	U 180	550		1

\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description: SL-008-SA5C-SB-8.0-9.0 Soil**  
**SSFL Area IV Collocated Soil Sampling**  
**SL-008-SA5C-SB-8.0-9.0**

**LLI Sample # SW 6162952**  
**LLI Group # 1225039**  
**Account # 13013**

**Project Name: SSFL Area IV Collocated Soil Sampling**

Collected: 12/10/2010 12:22

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3509 SDG#: DE035-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04688	Phenol	108-95-2	18	U 18	180		1
04688	1,2,4-Trichlorobenzene	120-82-1	18	U 18	180		1
04688	2,4,5-Trichlorophenol	95-95-4	37	U 37	180		1
04688	2,4,6-Trichlorophenol	88-06-2	37	U 37	180		1
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C SIM</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10138	Acenaphthene	83-32-9	0.73	U 0.73	1.8		1
10138	Acenaphthylene	208-96-8	0.37	U 0.37	1.8		1
10138	Anthracene	120-12-7	0.37	U 0.37	1.8		1
10138	Benzo(a)anthracene	56-55-3	0.73	U 0.73	1.8		1
10138	Benzo(a)pyrene	50-32-8	0.73	U 0.73	1.8		1
10138	Benzo(b)fluoranthene	205-99-2	0.73	U 0.73	1.8		1
10138	Benzo(g,h,i)perylene	191-24-2	0.73	U 0.73	1.8		1
10138	Benzo(k)fluoranthene	207-08-9	0.73	U 0.73	1.8		1
10138	Butylbenzylphthalate	85-68-7	6.6	U 6.6	20		1
10138	Di-n-butylphthalate	84-74-2	6.6	U 6.6	20		1
10138	Chrysene	218-01-9	0.37	U 0.37	1.8		1
10138	Dibenz(a,h)anthracene	53-70-3	0.73	U 0.73	1.8		1
10138	Diethylphthalate	84-66-2	6.6	U 6.6	20		1
10138	Dimethylphthalate	131-11-3	6.6	U 6.6	20		1
10138	Fluoranthene	206-44-0	0.73	U 0.73	1.8		1
10138	Fluorene	86-73-7	0.73	U 0.73	1.8		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.73	U 0.73	1.8		1
10138	1-Methylnaphthalene	90-12-0	0.73	U 0.73	1.8		1
10138	2-Methylnaphthalene	91-57-6	0.73	U 0.73	1.8		1
10138	Naphthalene	91-20-3	0.73	U 0.73	1.8		1
10138	N-Nitrosodimethylamine	62-75-9	0.73	U 0.73	1.8		1
10138	Di-n-octylphthalate	117-84-0	6.6	U 6.6	20		1
10138	Phenanthrene	85-01-8	0.73	U 0.73	1.8		1
10138	Pyrene	129-00-0	0.73	U 0.73	1.8		1
<b>Pesticides/PCBs</b>	<b>SW-846 8082</b>		<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10225	Aroclor 5432	63496-31-1	1.1	U 1.1	3.6		1
10225	Aroclor 5442	12642-23-8	1.1	U 1.1	3.6		1
10225	Aroclor 5460	11126-42-4	1.1	U 1.1	3.6		1
10225	PCB-1016	12674-11-2	0.36	U 0.36	1.9		1
10225	PCB-1221	11104-28-2	0.55	U 0.55	1.9		1
10225	PCB-1232	11141-16-5	0.57	U 0.57	1.9		1
10225	PCB-1242	53469-21-9	0.55	U 0.55	1.9		1
10225	PCB-1248	12672-29-6	0.36	U 0.36	1.9		1
10225	PCB-1254	11097-69-1	0.36	U 0.36	1.9		1
10225	PCB-1260	11096-82-5	0.36	U 0.36	1.9		1
10225	PCB-1262	37324-23-5	0.36	U 0.36	1.9		1
10225	PCB-1268	11100-14-4	0.36	U 0.36	1.9		1
The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.							
<b>Metals</b>	<b>SW-846 6010B</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
01643	Aluminum	7429-90-5	22,600	5.45	21.7		1

\*=This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-008-SA5C-SB-8.0-9.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-008-SA5C-SB-8.0-9.0

LLI Sample # SW 6162952  
 LLI Group # 1225039  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 12:22

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3509 SDG#: DE035-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Metals</b>							
		<b>SW-846 6010B</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
07914	Boron	7440-42-8	5.01 J	0.965	5.42		1
01650	Calcium	7440-70-2	1,510	6.65	21.7		1
01654	Iron	7439-89-6	18,000	5.11	21.7		1
01656	Lithium	7439-93-2	24.3	0.24	2.2		1
01657	Magnesium	7439-95-4	3,430	2.75	10.8		1
06958	Manganese	7439-96-5	165	0.0846	0.542		1
10145	Phosphorus	7723-14-0	181	0.607	10.8		1
01662	Potassium	7440-09-7	1,610	19.5	54.2		1
01667	Sodium	7440-23-5	89.6 J	40.4	108		1
07968	Strontium	7440-24-6	17.0	0.0672	0.542		1
06969	Tin	7440-31-5	2.74 J	1.08	10.8		1
06970	Titanium	7440-32-6	1,210	0.412	1.08		1
10146	Zirconium	7440-67-7	0.911 U	0.911	5.42		1
		<b>SW-846 6020</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
06124	Antimony	7440-36-0	0.150 J	0.0638	0.213		2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	8.38	0.0638	0.425		2
06126	Barium	7440-39-3	63.5	0.115	0.425		2
06127	Beryllium	7440-41-7	0.602	0.0170	0.106		2
06128	Cadmium	7440-43-9	0.0604 J	0.0383	0.106		2
06131	Chromium	7440-47-3	16.6	0.128	0.425		2
06132	Cobalt	7440-48-4	3.54	0.0213	0.106		2
06133	Copper	7440-50-8	5.42	0.0702	0.425		2
06135	Lead	7439-92-1	6.69	0.0111	0.213		2
06138	Molybdenum	7439-98-7	1.05	0.0532	0.106		2
06139	Nickel	7440-02-0	7.96	0.106	0.425		2
06141	Selenium	7782-49-2	0.215 J	0.0425	0.425		2
06142	Silver	7440-22-4	0.168	0.0128	0.106		2
06145	Thallium	7440-28-0	0.326	0.0319	0.106		2
06148	Vanadium	7440-62-2	35.2	0.0234	0.106		2
06149	Zinc	7440-66-6	53.7	0.595	3.19		2
		<b>SW-846 7471A</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
00159	Mercury	7439-97-6	0.0165 J	0.0031	0.108		1
<b>Wet Chemistry</b>							
		<b>EPA 300.0</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	3.8	0.88	1.1		1
		<b>EPA 314.0</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.9 U	9.9	32.9		1
		<b>SW-846 7199</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
05892	3a Cr VI by EPA 7199	18540-29-9	0.50 J	0.22	1.1		1

\*—This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-008-SA5C-SB-8.0-9.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-008-SA5C-SB-8.0-9.0

**LLI Sample #** SW 6162952  
**LLI Group #** 1225039  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 12:22

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3509 SDG#: DE035-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Wet Chemistry</b>		<b>ASTM D1498</b>	mV	mV	mV	mV	
01821	Oxidation Reduction Potential	n.a.	573	10.0	10.0		1
	The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.						
		<b>SW-846 9045C modified</b>	<b>Std. Units</b>	<b>Std. Units</b>	<b>Std. Units</b>	<b>Std. Units</b>	
00394	22a pH by 9045C	n.a.	6.85	0.0100	0.0100		1
<b>Wet Chemistry</b>		<b>EPA 160.3 modified</b>	%	%	%	%	
11624	28a Moisture Content by 160.3	n.a.	8.7	0.50	0.50		1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

### General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10350SLB026	01/01/2011 04:06	Ryan P Byrne	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10349SLH026	12/23/2010 01:13	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10349SLH026	12/16/2010 06:15	Joseph S Feister	1
00381	BNA Soil Sonication	SW-846 3550B	1	10350SLB026	12/16/2010 17:30	Sally L Appleyard	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	103500026A	12/22/2010 03:49	Lindsey K Lafferty	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	103500026A	12/17/2010 00:40	David V Hershey Jr	1
01643	Aluminum	SW-846 6010B	1	103495708006	12/17/2010 19:55	John P Hook	1
07914	Boron	SW-846 6010B	1	103495708006	12/17/2010 19:55	John P Hook	1
01650	Calcium	SW-846 6010B	1	103495708006	12/17/2010 19:55	John P Hook	1
01654	Iron	SW-846 6010B	1	103495708006	12/17/2010 19:55	John P Hook	1
01656	Lithium	SW-846 6010B	1	103495708006	12/21/2010 08:21	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	103495708006	12/17/2010 19:55	John P Hook	1
06958	Manganese	SW-846 6010B	1	103495708006	12/17/2010 19:55	John P Hook	1
10145	Phosphorus	SW-846 6010B	1	103495708006	12/17/2010 19:55	John P Hook	1
01662	Potassium	SW-846 6010B	1	103495708006	12/17/2010 19:55	John P Hook	1
01667	Sodium	SW-846 6010B	1	103495708006	12/17/2010 19:55	John P Hook	1
07968	Strontium	SW-846 6010B	1	103495708006	12/17/2010 19:55	John P Hook	1
06969	Tin	SW-846 6010B	1	103495708006	12/17/2010 19:55	John P Hook	1

\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-008-SA5C-SB-8.0-9.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-008-SA5C-SB-8.0-9.0

**LLI Sample #** SW 6162952  
**LLI Group #** 1225039  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 12:22

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3509 SDG#: DE035-09

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06970	Titanium	SW-846 6010B	1	103555708001	12/22/2010 08:23	Joanne M Gates	1
10146	Zirconium	SW-846 6010B	1	103495708006	12/21/2010 08:21	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	103491026005A	12/23/2010 12:19	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103491026005A	12/23/2010 12:19	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103491026005D	12/23/2010 12:19	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103491026005A	12/23/2010 12:19	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103491026005A	12/23/2010 12:19	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103491026005A	12/23/2010 12:19	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103491026005A	12/23/2010 12:19	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103491026005A	12/23/2010 12:19	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103491026005A	12/23/2010 12:19	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103491026005C	12/23/2010 12:19	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103491026005A	12/23/2010 12:19	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103491026005B	12/23/2010 12:19	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103491026005A	12/23/2010 12:19	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103491026005A	12/23/2010 12:19	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103491026005A	12/23/2010 12:19	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	103491026005A	12/23/2010 12:19	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	103495711005	12/16/2010 06:50	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	103495708006	12/15/2010 20:01	Annamaria Stipkovits	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	103555708001	12/21/2010 12:28	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103491026005	12/15/2010 20:03	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	103495711005	12/15/2010 22:15	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10362362201A	12/30/2010 02:55	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10362362201A	12/29/2010 03:30	Ashley M Adams	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	10358243201A	12/29/2010 13:47	Ashley M Adams	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10362362201A	12/28/2010 11:00	Erik J Frederiksen	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10362362203A	12/28/2010 14:00	Nancy J Shoop	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10348182103B	12/14/2010 13:00	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10348039403B	12/14/2010 13:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10358243201A	12/24/2010 07:00	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	1	10349162402A	12/15/2010 09:36	William C Schwebel	1

\*—This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-057-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-057-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162953  
**LLI Group #** 1225039  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 11:20

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3510 SDG#: DE035-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04688	Aniline	62-53-3	190	U 190	580		1
04688	Benzidine	92-87-5	1,400	U 1,400	3,900		1
04688	Benzoic acid	65-85-0	190	U 190	580		1
04688	Benzyl alcohol	100-51-6	190	U 190	580		1
04688	4-Bromophenyl-phenylether	101-55-3	19	U 19	190		1
04688	Carbazole	86-74-8	19	U 19	190		1
04688	4-Chloro-3-methylphenol	59-50-7	39	U 39	190		1
04688	4-Chloroaniline	106-47-8	77	U 77	190		1
04688	bis(2-Chloroethoxy)methane	111-91-1	19	U 19	190		1
04688	bis(2-Chloroethyl)ether	111-44-4	19	U 19	190		1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	19	U 19	190		1
04688	2-Chloronaphthalene	91-58-7	19	U 19	190		1
04688	2-Chlorophenol	95-57-8	19	U 19	190		1
04688	4-Chlorophenyl-phenylether	7005-72-3	39	U 39	190		1
04688	Dibenzofuran	132-64-9	19	U 19	190		1
04688	1,2-Dichlorobenzene	95-50-1	19	U 19	190		1
04688	1,3-Dichlorobenzene	541-73-1	19	U 19	190		1
04688	1,4-Dichlorobenzene	106-46-7	19	U 19	190		1
04688	3,3'-Dichlorobenzidine	91-94-1	120	U 120	390		1
04688	2,4-Dichlorophenol	120-83-2	19	U 19	190		1
04688	2,4-Dimethylphenol	105-67-9	39	U 39	190		1
04688	3,5-Dimethylphenol	108-68-9	39	U 39	190		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	190	U 190	580		1
04688	2,4-Dinitrophenol	51-28-5	770	U 770	2,300		1
04688	2,4-Dinitrotoluene	121-14-2	39	U 39	190		1
04688	2,6-Dinitrotoluene	606-20-2	19	U 19	190		1
04688	1,2-Diphenylhydrazine	122-66-7	19	U 19	190		1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	21	J 19	390		1
04688	Hexachlorobenzene	118-74-1	19	U 19	190		1
04688	Hexachlorobutadiene	87-68-3	77	U 77	190		1
04688	Hexachlorocyclopentadiene	77-47-4	190	U 190	580		1
04688	Hexachloroethane	67-72-1	19	U 19	190		1
04688	Isophorone	78-59-1	19	U 19	190		1
04688	2-Methylphenol	95-48-7	39	U 39	190		1
04688	4-Methylphenol	106-44-5	39	U 39	190		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	19	U 19	190		1
04688	3-Nitroaniline	99-09-2	39	U 39	190		1
04688	4-Nitroaniline	100-01-6	77	U 77	190		1
04688	Nitrobenzene	98-95-3	19	U 19	190		1
04688	2-Nitrophenol	88-75-5	19	U 19	190		1
04688	4-Nitrophenol	100-02-7	190	U 190	580		1
04688	N-Nitroso-di-n-propylamine	621-64-7	19	U 19	190		1
04688	N-Nitrosodiphenylamine	86-30-6	19	U 19	190		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	190	U 190	580		1

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 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-057-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-057-SA5B-SS-0.0-0.5

LLI Sample # SW 6162953  
 LLI Group # 1225039  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 11:20

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3510 SDG#: DE035-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04688	Phenol	108-95-2	19	U 19	190		1
04688	1,2,4-Trichlorobenzene	120-82-1	19	U 19	190		1
04688	2,4,5-Trichlorophenol	95-95-4	39	U 39	190		1
04688	2,4,6-Trichlorophenol	88-06-2	39	U 39	190		1
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C SIM</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10138	Acenaphthene	83-32-9	0.77	U 0.77	1.9		1
10138	Acenaphthylene	208-96-8	0.39	U 0.39	1.9		1
10138	Anthracene	120-12-7	0.39	U 0.39	1.9		1
10138	Benzo(a)anthracene	56-55-3	0.77	U 0.77	1.9		1
10138	Benzo(a)pyrene	50-32-8	0.77	U 0.77	1.9		1
10138	Benzo(b)fluoranthene	205-99-2	0.80	J 0.77	1.9		1
10138	Benzo(g,h,i)perylene	191-24-2	0.77	U 0.77	1.9		1
10138	Benzo(k)fluoranthene	207-08-9	0.77	U 0.77	1.9		1
10138	Butylbenzylphthalate	85-68-7	7.0	U 7.0	21		1
10138	Di-n-butylphthalate	84-74-2	7.0	U 7.0	21		1
10138	Chrysene	218-01-9	0.59	J 0.39	1.9		1
10138	Dibenz(a,h)anthracene	53-70-3	0.77	U 0.77	1.9		1
10138	Diethylphthalate	84-66-2	7.0	U 7.0	21		1
10138	Dimethylphthalate	131-11-3	7.0	U 7.0	21		1
10138	Fluoranthene	206-44-0	0.77	U 0.77	1.9		1
10138	Fluorene	86-73-7	0.77	U 0.77	1.9		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.77	U 0.77	1.9		1
10138	1-Methylnaphthalene	90-12-0	0.77	U 0.77	1.9		1
10138	2-Methylnaphthalene	91-57-6	0.77	U 0.77	1.9		1
10138	Naphthalene	91-20-3	0.77	U 0.77	1.9		1
10138	N-Nitrosodimethylamine	62-75-9	0.77	U 0.77	1.9		1
10138	Di-n-octylphthalate	117-84-0	7.0	U 7.0	21		1
10138	Phenanthrene	85-01-8	0.77	U 0.77	1.9		1
10138	Pyrene	129-00-0	0.77	U 0.77	1.9		1
<b>Herbicides</b>	<b>SW-846 8151A</b>		<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10401	2,4-D	94-75-7	1.4	U 1.4	4.2		1
10401	Dalapon	75-99-0	5.1	U 5.1	10		1
10401	2,4-DB	94-82-6	1.0	U 1.0	2.0		1
10401	Dicamba	1918-00-9	0.46	U 0.46	1.4		1
10401	Dinoseb	88-85-7	0.93	U 0.93	2.8		1
10401	2,4-DP (Dichlorprop)	120-36-5	0.93	U 0.93	2.0		1
10401	MCPA	94-74-6	88	U 88	290		1
10401	MCPP (Mecoprop)	93-65-2	170	U 170	290		1
10401	2,4,5-T	93-76-5	0.095	U 0.095	0.20		1
10401	2,4,5-TP	93-72-1	0.087	U 0.087	0.20		1

The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported.

When the concentration detected on the primary and confirmation column is significantly different, some uncertainty as to the presence and concentration of the compound exists. In these

\*=This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.



# Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

**Sample Description:** SL-057-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-057-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162953  
**LLI Group #** 1225039  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 11:20

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3510 SDG#: DE035-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
cases, the reporting limits have been raised. The following compounds were affected: MCPP and 2,4-DB.							
<b>Pesticides/PCBs</b>		<b>SW-846 8081A</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
01363	Aldrin	309-00-2	0.076 U	0.076	0.19		1
01363	Alpha BHC	319-84-6	0.039 U	0.039	0.19		1
01363	Beta BHC	319-85-7	0.070 U	0.070	0.19		1
01363	Gamma BHC - Lindane	58-89-9	0.039 U	0.039	0.19		1
01363	Chlordane	57-74-9	0.93 U	0.93	3.9		1
01363	p,p-DDD	72-54-8	0.076 U	0.076	0.39		1
01363	p,p-DDE	72-55-9	0.076 U	0.076	0.39		1
01363	p,p-DDT	50-29-3	0.12 U	0.12	0.39		1
01363	Delta BHC	319-86-8	0.042 U	0.042	0.19		1
01363	Dieldrin	60-57-1	0.076 U	0.076	0.39		1
01363	Endosulfan I	959-98-8	0.051 U	0.051	0.19		1
01363	Endosulfan II	33213-65-9	0.076 U	0.076	0.39		1
01363	Endosulfan Sulfate	1031-07-8	0.076 U	0.076	0.39		1
01363	Endrin	72-20-8	0.076 U	0.076	0.39		1
01363	Endrin Aldehyde	7421-93-4	0.076 U	0.076	0.39		1
01363	Endrin Ketone	53494-70-5	0.076 U	0.076	0.39		1
01363	Heptachlor	76-44-8	0.070 U	0.070	0.19		1
01363	Heptachlor Epoxide	1024-57-3	0.044 U	0.044	0.19		1
01363	Methoxychlor	72-43-5	0.39 U	0.39	1.9		1
01363	Mirex	2385-85-5	0.076 U	0.076	0.39		1
01363	Toxaphene	8001-35-2	2.5 U	2.5	7.6		1

Various analytes in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported.

Due to interfering peaks on the chromatogram from the presence of PCBs, the values reported represent the lowest reporting limits attainable. Despite numerous cleanup methods, our usual reporting limits were not attained.

<b>Pesticides/PCBs</b>		<b>SW-846 8082</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>
10225	Aroclor 5432	63496-31-1	1.2 U	1.2	3.8	1
10225	Aroclor 5442	12642-23-8	1.2 U	1.2	3.8	1
10225	Aroclor 5460	11126-42-4	1.2 U	1.2	3.8	1
10225	PCB-1016	12674-11-2	0.38 U	0.38	2.0	1
10225	PCB-1221	11104-28-2	0.58 U	0.58	2.0	1
10225	PCB-1232	11141-16-5	0.60 U	0.60	2.0	1
10225	PCB-1242	53469-21-9	0.58 U	0.58	2.0	1
10225	PCB-1248	12672-29-6	0.38 U	0.38	2.0	1
10225	PCB-1254	11097-69-1	0.38 U	0.38	2.0	1
10225	PCB-1260	11096-82-5	0.64 J	0.38	2.0	1
10225	PCB-1262	37324-23-5	0.38 U	0.38	2.0	1
10225	PCB-1268	11100-14-4	0.38 U	0.38	2.0	1

The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.

The surrogate data is outside the QC limits due to unresolvable matrix problems evident in the sample chromatogram.

<b>Metals</b>	<b>SW-846 6010B</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>
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\*=This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-057-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-057-SA5B-SS-0.0-0.5

LLI Sample # SW 6162953  
 LLI Group # 1225039  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 11:20

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3510 SDG#: DE035-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Metals</b>							
	<b>SW-846 6010B</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
01643	Aluminum	7429-90-5	24,900	5.66	22.5		1
07914	Boron	7440-42-8	12.5	1.00	5.62		1
01650	Calcium	7440-70-2	67,300	13.8	45.0		2
01654	Iron	7439-89-6	30,300	5.30	22.5		1
01656	Lithium	7439-93-2	27.3	0.25	2.2		1
01657	Magnesium	7439-95-4	7,210	2.86	11.2		1
06958	Manganese	7439-96-5	345	0.0877	0.562		1
10145	Phosphorus	7723-14-0	560	0.630	11.2		1
01662	Potassium	7440-09-7	4,790	20.2	56.2		1
01667	Sodium	7440-23-5	134	42.0	112		1
07968	Strontium	7440-24-6	123	0.0697	0.562		1
06969	Tin	7440-31-5	2.41 J	1.12	11.2		1
06970	Titanium	7440-32-6	1,450	0.432	1.14		1
10146	Zirconium	7440-67-7	2.09 J	0.945	5.62		1
	<b>SW-846 6020</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
06124	Antimony	7440-36-0	0.148 J	0.0675	0.225		2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	7.10	0.0675	0.450		2
06126	Barium	7440-39-3	136	0.121	0.450		2
06127	Beryllium	7440-41-7	0.698	0.0180	0.112		2
06128	Cadmium	7440-43-9	0.409	0.0405	0.112		2
06131	Chromium	7440-47-3	31.7	0.135	0.450		2
06132	Cobalt	7440-48-4	10.1	0.0225	0.112		2
06133	Copper	7440-50-8	14.4	0.0742	0.450		2
06135	Lead	7439-92-1	12.1	0.0117	0.225		2
06138	Molybdenum	7439-98-7	0.610	0.0562	0.112		2
06139	Nickel	7440-02-0	18.8	0.112	0.450		2
06141	Selenium	7782-49-2	0.231 J	0.0450	0.450		2
06142	Silver	7440-22-4	0.0416 J	0.0135	0.112		2
06145	Thallium	7440-28-0	0.384	0.0337	0.112		2
06148	Vanadium	7440-62-2	63.3	0.0247	0.112		2
06149	Zinc	7440-66-6	85.4	0.630	3.37		2
	<b>SW-846 7471A</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
00159	Mercury	7439-97-6	0.0033 U	0.0033	0.114		1
<b>Wet Chemistry</b>							
	<b>EPA 300.0</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.4	0.93	1.2		1
	<b>EPA 314.0</b>		<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10147	7a Perchlorate EPA 314.0	14797-73-0	10.4 U	10.4	34.8		1
	<b>SW-846 7199</b>		<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
05892	3a Cr VI by EPA 7199	18540-29-9	0.42 J	0.23	1.2		1

\*=This limit was used in the evaluation of the final result

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**Sample Description:** SL-057-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-057-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162953  
**LLI Group #** 1225039  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 11:20

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3510 SDG#: DE035-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Wet Chemistry</b>		<b>ASTM D1498</b>	mV	mV	mV	mV	
01821	Oxidation Reduction Potential The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.	n.a.	501	10.0	10.0		1
		<b>SW-846 9045C modified</b>	<b>Std. Units</b>	<b>Std. Units</b>	<b>Std. Units</b>	<b>Std. Units</b>	
00394	22a pH by 9045C	n.a.	8.39	0.0100	0.0100		1
<b>Wet Chemistry</b>		<b>EPA 160.3 modified</b>	%	%	%	%	
11624	28a Moisture Content by 160.3 "Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.	n.a.	13.7	0.50	0.50		1

### General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10350SLB026	01/01/2011 04:32	Ryan P Byrne	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10349SLH026	12/23/2010 01:49	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10349SLH026	12/16/2010 06:15	Joseph S Feister	1
00381	BNA Soil Sonication	SW-846 3550B	1	10350SLB026	12/16/2010 17:30	Sally L Appleyard	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	103510024A	01/06/2011 19:35	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	103510029A	12/29/2010 19:50	Jamie L Brillhart	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	103500026A	12/22/2010 05:22	Lindsey K Lafferty	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	103510029A	12/20/2010 07:00	Joseph S Feister	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	103500026A	12/17/2010 00:40	David V Hershey Jr	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	103510024A	12/20/2010 01:40	David V Hershey Jr	1
01643	Aluminum	SW-846 6010B	1	103495708006	12/17/2010 19:59	John P Hook	1
07914	Boron	SW-846 6010B	1	103495708006	12/17/2010 19:59	John P Hook	1
01650	Calcium	SW-846 6010B	1	103495708006	12/21/2010 08:29	Tara L Snyder	2
01654	Iron	SW-846 6010B	1	103495708006	12/17/2010 19:59	John P Hook	1
01656	Lithium	SW-846 6010B	1	103495708006	12/21/2010 08:25	Tara L Snyder	1

\*-This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-057-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-057-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162953  
**LLI Group #** 1225039  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 11:20

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3510 SDG#: DE035-10

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
01657	Magnesium	SW-846 6010B	1	103495708006	12/17/2010	19:59	John P Hook	1
06958	Manganese	SW-846 6010B	1	103495708006	12/17/2010	19:59	John P Hook	1
10145	Phosphorus	SW-846 6010B	1	103495708006	12/17/2010	19:59	John P Hook	1
01662	Potassium	SW-846 6010B	1	103495708006	12/17/2010	19:59	John P Hook	1
01667	Sodium	SW-846 6010B	1	103495708006	12/17/2010	19:59	John P Hook	1
07968	Strontium	SW-846 6010B	1	103495708006	12/17/2010	19:59	John P Hook	1
06969	Tin	SW-846 6010B	1	103495708006	12/17/2010	19:59	John P Hook	1
06970	Titanium	SW-846 6010B	1	103555708001	12/22/2010	08:27	Joanne M Gates	1
10146	Zirconium	SW-846 6010B	1	103495708006	12/21/2010	08:25	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	103491026005A	12/23/2010	12:22	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103491026005A	12/23/2010	12:22	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103491026005D	12/23/2010	12:22	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103491026005A	12/23/2010	12:22	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103491026005A	12/23/2010	12:22	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103491026005A	12/23/2010	12:22	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103491026005A	12/23/2010	12:22	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103491026005A	12/23/2010	12:22	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103491026005A	12/23/2010	12:22	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103491026005C	12/23/2010	12:22	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103491026005A	12/23/2010	12:22	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103491026005B	12/23/2010	12:22	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103491026005A	12/23/2010	12:22	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103491026005A	12/23/2010	12:22	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103491026005A	12/23/2010	12:22	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	103491026005A	12/23/2010	12:22	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	103495711005	12/16/2010	06:51	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	103495708006	12/15/2010	20:01	Annamaria Stipkovits	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	103555708001	12/21/2010	12:28	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103491026005	12/15/2010	20:03	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	103495711005	12/15/2010	22:15	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10362362201A	12/30/2010	03:09	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10362362201A	12/29/2010	03:54	Ashley M Adams	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	10358243201A	12/29/2010	14:13	Ashley M Adams	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10362362201A	12/28/2010	11:00	Erik J Frederiksen	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10362362203A	12/28/2010	14:00	Nancy J Shoop	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10348182103B	12/14/2010	13:00	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10348039403B	12/14/2010	13:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10358243201A	12/24/2010	07:00	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	1	10349162402A	12/15/2010	09:36	William C Schwebel	1

\*—This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.



# Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

**Sample Description:** SL-234-SA5B-SS-0.0-0.5 Soil  
SSFL Area IV Collocated Soil Sampling  
SL-234-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162954  
**LLI Group #** 1225039  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 11:20

CDM Federal Programs Corp.  
14420 Albemarle Point Place  
Suite 210  
Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3511 SDG#: DE035-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04688	Aniline	62-53-3	180	U 180	550		1
04688	Benzidine	92-87-5	1,300	U 1,300	3,600		1
04688	Benzo(a)anthracene	56-55-3	21	J 18	180		1
04688	Benzoic acid	65-85-0	180	U 180	550		1
04688	Benzyl alcohol	100-51-6	180	U 180	550		1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180		1
04688	Carbazole	86-74-8	18	U 18	180		1
04688	4-Chloro-3-methylphenol	59-50-7	36	U 36	180		1
04688	4-Chloroaniline	106-47-8	73	U 73	180		1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180		1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180		1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180		1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180		1
04688	2-Chlorophenol	95-57-8	18	U 18	180		1
04688	4-Chlorophenyl-phenylether	7005-72-3	36	U 36	180		1
04688	Chrysene	218-01-9	21	J 18	180		1
04688	Dibenzofuran	132-64-9	18	U 18	180		1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180		1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180		1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180		1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	360		1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180		1
04688	2,4-Dimethylphenol	105-67-9	36	U 36	180		1
04688	3,5-Dimethylphenol	108-68-9	36	U 36	180		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	550		1
04688	2,4-Dinitrophenol	51-28-5	730	U 730	2,200		1
04688	2,4-Dinitrotoluene	121-14-2	36	U 36	180		1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180		1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180		1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	21	J 18	360		1
04688	Fluoranthene	206-44-0	25	J 18	180		1
04688	Hexachlorobenzene	118-74-1	18	U 18	180		1
04688	Hexachlorobutadiene	87-68-3	73	U 73	180		1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	550		1
04688	Hexachloroethane	67-72-1	18	U 18	180		1
04688	Isophorone	78-59-1	18	U 18	180		1
04688	2-Methylphenol	95-48-7	36	U 36	180		1
04688	4-Methylphenol	106-44-5	36	U 36	180		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	18	U 18	180		1
04688	3-Nitroaniline	99-09-2	36	U 36	180		1
04688	4-Nitroaniline	100-01-6	73	U 73	180		1
04688	Nitrobenzene	98-95-3	18	U 18	180		1
04688	2-Nitrophenol	88-75-5	18	U 18	180		1
04688	4-Nitrophenol	100-02-7	180	U 180	550		1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180		1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180		1

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Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-234-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-234-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162954  
**LLI Group #** 1225039  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 11:20

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3511 SDG#: DE035-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	180	U 180	550		1
04688	Phenol	108-95-2	18	U 18	180		1
04688	Pyrene	129-00-0	33	J 18	180		1
04688	1,2,4-Trichlorobenzene	120-82-1	18	U 18	180		1
04688	2,4,5-Trichlorophenol	95-95-4	36	U 36	180		1
04688	2,4,6-Trichlorophenol	88-06-2	36	U 36	180		1
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C SIM</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10138	Acenaphthene	83-32-9	0.73	U 0.73	1.8		1
10138	Acenaphthylene	208-96-8	0.36	U 0.36	1.8		1
10138	Anthracene	120-12-7	0.57	J 0.36	1.8		1
10138	Benzo(a)pyrene	50-32-8	17	0.73	1.8		1
10138	Benzo(b)fluoranthene	205-99-2	29	0.73	1.8		1
10138	Benzo(g,h,i)perylene	191-24-2	5.6	0.73	1.8		1
10138	Benzo(k)fluoranthene	207-08-9	9.8	0.73	1.8		1
10138	Butylbenzylphthalate	85-68-7	6.6	U 6.6	20		1
10138	Di-n-butylphthalate	84-74-2	6.6	U 6.6	20		1
10138	Dibenz(a,h)anthracene	53-70-3	1.4	J 0.73	1.8		1
10138	Diethylphthalate	84-66-2	6.6	U 6.6	20		1
10138	Dimethylphthalate	131-11-3	6.6	U 6.6	20		1
10138	Fluorene	86-73-7	0.73	U 0.73	1.8		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	4.7	0.73	1.8		1
10138	1-Methylnaphthalene	90-12-0	0.73	U 0.73	1.8		1
10138	2-Methylnaphthalene	91-57-6	0.73	U 0.73	1.8		1
10138	Naphthalene	91-20-3	0.73	U 0.73	1.8		1
10138	N-Nitrosodimethylamine	62-75-9	0.73	U 0.73	1.8		1
10138	Di-n-octylphthalate	117-84-0	6.6	U 6.6	20		1
10138	Phenanthrene	85-01-8	1.5	J 0.73	1.8		1
<b>Herbicides</b>	<b>SW-846 8151A</b>		<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10401	2,4-D	94-75-7	1.3	U 1.3	3.9		1
10401	Dalapon	75-99-0	4.8	U 4.8	9.8		1
10401	2,4-DB	94-82-6	2.8	0.68	1.9		1
10401	Dicamba	1918-00-9	0.44	U 0.44	1.3		1
10401	Dinoseb	88-85-7	0.88	U 0.88	2.6		1
10401	2,4-DP (Dichlorprop)	120-36-5	0.88	U 0.88	1.9		1
10401	MCPA	94-74-6	300	U 300	300		1
10401	MCPP (Mecoprop)	93-65-2	82	U 82	270		1
10401	2,4,5-T	93-76-5	0.090	U 0.090	0.19		1
10401	2,4,5-TP	93-72-1	0.082	U 0.082	0.19		1

The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported.

Due to interfering peaks on the chromatogram, the values reported represent the lowest reporting limits attainable.

\*=This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-234-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-234-SA5B-SS-0.0-0.5

LLI Sample # SW 6162954  
 LLI Group # 1225039  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 11:20

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3511 SDG#: DE035-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Despite numerous cleanup methods, our usual reporting limits were not attained.							
<b>Pesticides/PCBs</b>		<b>SW-846 8081A</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
01363	Aldrin	309-00-2	0.072 U	0.072	0.18		1
01363	Alpha BHC	319-84-6	0.037 U	0.037	0.18		1
01363	Beta BHC	319-85-7	0.066 U	0.066	0.18		1
01363	Gamma BHC - Lindane	58-89-9	0.037 U	0.037	0.18		1
01363	Chlordane	57-74-9	0.88 U	0.88	3.7		1
01363	p,p-DDD	72-54-8	0.19 U	0.19	0.37		1
01363	p,p-DDE	72-55-9	0.072 U	0.072	0.37		1
01363	p,p-DDT	50-29-3	0.23 U	0.23	0.37		1
01363	Delta BHC	319-86-8	0.039 U	0.039	0.18		1
01363	Dieldrin	60-57-1	0.078 U	0.078	0.37		1
01363	Endosulfan I	959-98-8	0.048 U	0.048	0.18		1
01363	Endosulfan II	33213-65-9	0.072 U	0.072	0.37		1
01363	Endosulfan Sulfate	1031-07-8	0.072 U	0.072	0.37		1
01363	Endrin	72-20-8	0.072 U	0.072	0.37		1
01363	Endrin Aldehyde	7421-93-4	0.072 U	0.072	0.37		1
01363	Endrin Ketone	53494-70-5	0.072 U	0.072	0.37		1
01363	Heptachlor	76-44-8	0.066 U	0.066	0.18		1
01363	Heptachlor Epoxide	1024-57-3	0.037 U	0.037	0.18		1
01363	Methoxychlor	72-43-5	0.37 U	0.37	1.8		1
01363	Mirex	2385-85-5	0.12 U	0.12	0.37		1
01363	Toxaphene	8001-35-2	2.4 U	2.4	7.2		1

Various analytes in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported.

Due to interfering peaks on the chromatogram from the presence of PCBs, the values reported represent the lowest reporting limits attainable. Despite numerous cleanup methods, our usual reporting limits were not attained.

<b>Pesticides/PCBs</b>		<b>SW-846 8082</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.6		1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.6		1
10225	Aroclor 5460	11126-42-4	2.1 J	1.1	3.6		1
10225	PCB-1016	12674-11-2	0.36 U	0.36	1.9		1
10225	PCB-1221	11104-28-2	0.55 U	0.55	1.9		1
10225	PCB-1232	11141-16-5	0.57 U	0.57	1.9		1
10225	PCB-1242	53469-21-9	0.55 U	0.55	1.9		1
10225	PCB-1248	12672-29-6	0.36 U	0.36	1.9		1
10225	PCB-1254	11097-69-1	1.3 J	0.36	1.9		1
10225	PCB-1260	11096-82-5	1.1 J	0.36	1.9		1
10225	PCB-1262	37324-23-5	0.36 U	0.36	1.9		1
10225	PCB-1268	11100-14-4	0.36 U	0.36	1.9		1

The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.

<b>Metals</b>		<b>SW-846 6010B</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
01643	Aluminum	7429-90-5	15,400	5.40	21.5		1
07914	Boron	7440-42-8	6.86	0.955	5.36		1
01650	Calcium	7440-70-2	5,650	6.58	21.5		1

\*=This limit was used in the evaluation of the final result

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**Sample Description:** SL-234-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-234-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162954  
**LLI Group #** 1225039  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 11:20

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3511 SDG#: DE035-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Metals</b>							
<b>SW-846 6010B</b>			<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
01654	Iron	7439-89-6	20,100	5.05	21.5		1
01656	Lithium	7439-93-2	18.8	0.24	2.1		1
01657	Magnesium	7439-95-4	4,120	2.72	10.7		1
06958	Manganese	7439-96-5	274	0.0837	0.536		1
10145	Phosphorus	7723-14-0	694	0.601	10.7		1
01662	Potassium	7440-09-7	2,830	19.3	53.6		1
01667	Sodium	7440-23-5	106	J 40.0	107		1
07968	Strontium	7440-24-6	29.4	0.0665	0.536		1
06969	Tin	7440-31-5	2.16	J 1.07	10.7		1
06970	Titanium	7440-32-6	1,340	0.416	1.09		1
10146	Zirconium	7440-67-7	1.78	J 0.901	5.36		1
<b>SW-846 6020</b>			<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
06124	Antimony	7440-36-0	0.119	J 0.0637	0.212		2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.							
06125	Arsenic	7440-38-2	5.03	0.0637	0.425		2
06126	Barium	7440-39-3	127	0.115	0.425		2
06127	Beryllium	7440-41-7	0.555	0.0170	0.106		2
06128	Cadmium	7440-43-9	0.263	0.0382	0.106		2
06131	Chromium	7440-47-3	22.8	0.127	0.425		2
06132	Cobalt	7440-48-4	6.31	0.0212	0.106		2
06133	Copper	7440-50-8	10.5	0.0701	0.425		2
06135	Lead	7439-92-1	7.10	0.0110	0.212		2
06138	Molybdenum	7439-98-7	1.04	0.0531	0.106		2
06139	Nickel	7440-02-0	14.5	0.106	0.425		2
06141	Selenium	7782-49-2	0.141	J 0.0425	0.425		2
06142	Silver	7440-22-4	0.0378	J 0.0127	0.106		2
06145	Thallium	7440-28-0	0.207	0.0319	0.106		2
06148	Vanadium	7440-62-2	43.0	0.0234	0.106		2
06149	Zinc	7440-66-6	77.9	0.595	3.19		2
<b>SW-846 7471A</b>			<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
00159	Mercury	7439-97-6	0.0082	J 0.0031	0.106		1
<b>Wet Chemistry</b>							
<b>EPA 300.0</b>			<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	3.6	0.88	1.1		1
<b>EPA 314.0</b>			<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.8	U 9.8	32.8		1
<b>SW-846 7199</b>			<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
05892	3a Cr VI by EPA 7199	18540-29-9	0.36	J 0.22	1.1		1
<b>ASTM D1498</b>			<b>mV</b>	<b>mV</b>	<b>mV</b>	<b>mV</b>	
01821	Oxidation Reduction Potential	n.a.	485	10.0	10.0		1

\*-This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-234-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-234-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162954  
**LLI Group #** 1225039  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 11:20

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3511 SDG#: DE035-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Wet Chemistry</b>		<b>ASTM D1498</b>	mV	mV	mV	mV	
The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.							
<b>SW-846 9045C modified</b>			Std. Units	Std. Units	Std. Units	Std. Units	
00394	22a pH by 9045C	n.a.	8.48	0.0100	0.0100		1
<b>Wet Chemistry</b>		<b>EPA 160.3 modified</b>	%	%	%	%	
11624	28a Moisture Content by 160.3	n.a.	8.6	0.50	0.50		1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.							

### General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10350SLB026	01/01/2011 04:57	Ryan P Byrne	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10349SLH026	12/23/2010 02:23	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10349SLH026	12/16/2010 06:15	Joseph S Feister	1
00381	BNA Soil Sonication	SW-846 3550B	1	10350SLB026	12/16/2010 17:30	Sally L Appleyard	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	103510024A	12/20/2010 22:29	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	103510029A	12/29/2010 20:05	Jamie L Brillhart	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	103500026A	12/22/2010 05:40	Lindsey K Lafferty	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	103510029A	12/20/2010 07:00	Joseph S Feister	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	103500026A	12/17/2010 00:40	David V Hershey Jr	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	103510024A	12/20/2010 01:40	David V Hershey Jr	1
01643	Aluminum	SW-846 6010B	1	103495708006	12/17/2010 20:03	John P Hook	1
07914	Boron	SW-846 6010B	1	103495708006	12/17/2010 20:03	John P Hook	1
01650	Calcium	SW-846 6010B	1	103495708006	12/17/2010 20:03	John P Hook	1
01654	Iron	SW-846 6010B	1	103495708006	12/17/2010 20:03	John P Hook	1
01656	Lithium	SW-846 6010B	1	103495708006	12/22/2010 16:19	John P Hook	1
01657	Magnesium	SW-846 6010B	1	103495708006	12/17/2010 20:03	John P Hook	1

\*=This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-234-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-234-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162954  
**LLI Group #** 1225039  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 11:20

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3511 SDG#: DE035-11

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06958	Manganese	SW-846 6010B	1	103495708006	12/17/2010 20:03	John P Hook	1
10145	Phosphorus	SW-846 6010B	1	103495708006	12/17/2010 20:03	John P Hook	1
01662	Potassium	SW-846 6010B	1	103495708006	12/17/2010 20:03	John P Hook	1
01667	Sodium	SW-846 6010B	1	103495708006	12/17/2010 20:03	John P Hook	1
07968	Strontium	SW-846 6010B	1	103495708006	12/17/2010 20:03	John P Hook	1
06969	Tin	SW-846 6010B	1	103495708006	12/17/2010 20:03	John P Hook	1
06970	Titanium	SW-846 6010B	1	103555708001	12/22/2010 08:31	Joanne M Gates	1
10146	Zirconium	SW-846 6010B	1	103495708006	12/21/2010 08:40	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	103491026005A	12/23/2010 12:25	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103491026005A	12/23/2010 12:25	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103491026005D	12/23/2010 12:25	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103491026005A	12/23/2010 12:25	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103491026005A	12/23/2010 12:25	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103491026005A	12/23/2010 12:25	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103491026005A	12/23/2010 12:25	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103491026005A	12/23/2010 12:25	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103491026005A	12/23/2010 12:25	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103491026005C	12/23/2010 12:25	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103491026005A	12/23/2010 12:25	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103491026005B	12/23/2010 12:25	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103491026005A	12/23/2010 12:25	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103491026005A	12/23/2010 18:43	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103491026005A	12/23/2010 12:25	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	103491026005A	12/23/2010 12:25	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	103495711005	12/16/2010 06:52	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	103495708006	12/15/2010 20:01	Annamaria Stipkovits	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	103555708001	12/21/2010 12:28	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103491026005	12/15/2010 20:03	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	103495711005	12/15/2010 22:15	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10362362201B	12/30/2010 04:06	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10362362201A	12/29/2010 04:18	Ashley M Adams	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	10358243201A	12/29/2010 14:26	Ashley M Adams	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10362362201B	12/28/2010 11:00	Erik J Frederiksen	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10362362203A	12/28/2010 14:00	Nancy J Shoop	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10348182103B	12/14/2010 13:00	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10348039403B	12/14/2010 13:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10358243201A	12/24/2010 07:00	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	1	10349162402A	12/15/2010 09:36	William C Schwebel	1

\*—This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-235-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-235-SA5B-SS-0.0-0.5

LLI Sample # SW 6162955  
 LLI Group # 1225039  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 11:00

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3512 SDG#: DE035-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04688	Aniline	62-53-3	180	U 180	540		1
04688	Benzidine	92-87-5	1,300	U 1,300	3,600		1
04688	Benzoic acid	65-85-0	180	U 180	540		1
04688	Benzyl alcohol	100-51-6	180	U 180	540		1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180		1
04688	Carbazole	86-74-8	18	U 18	180		1
04688	4-Chloro-3-methylphenol	59-50-7	36	U 36	180		1
04688	4-Chloroaniline	106-47-8	72	U 72	180		1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180		1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180		1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180		1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180		1
04688	2-Chlorophenol	95-57-8	18	U 18	180		1
04688	4-Chlorophenyl-phenylether	7005-72-3	36	U 36	180		1
04688	Dibenzofuran	132-64-9	18	U 18	180		1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180		1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180		1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180		1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	360		1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180		1
04688	2,4-Dimethylphenol	105-67-9	36	U 36	180		1
04688	3,5-Dimethylphenol	108-68-9	36	U 36	180		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	540		1
04688	2,4-Dinitrophenol	51-28-5	720	U 720	2,200		1
04688	2,4-Dinitrotoluene	121-14-2	36	U 36	180		1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180		1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180		1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	21	J 18	360		1
04688	Hexachlorobenzene	118-74-1	18	U 18	180		1
04688	Hexachlorobutadiene	87-68-3	72	U 72	180		1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	540		1
04688	Hexachloroethane	67-72-1	18	U 18	180		1
04688	Isophorone	78-59-1	18	U 18	180		1
04688	2-Methylphenol	95-48-7	36	U 36	180		1
04688	4-Methylphenol	106-44-5	36	U 36	180		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	18	U 18	180		1
04688	3-Nitroaniline	99-09-2	36	U 36	180		1
04688	4-Nitroaniline	100-01-6	72	U 72	180		1
04688	Nitrobenzene	98-95-3	18	U 18	180		1
04688	2-Nitrophenol	88-75-5	18	U 18	180		1
04688	4-Nitrophenol	100-02-7	180	U 180	540		1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180		1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	180	U 180	540		1

\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-235-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-235-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162955  
**LLI Group #** 1225039  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 11:00

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3512 SDG#: DE035-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04688	Phenol	108-95-2	18	U 18	180		1
04688	1,2,4-Trichlorobenzene	120-82-1	18	U 18	180		1
04688	2,4,5-Trichlorophenol	95-95-4	36	U 36	180		1
04688	2,4,6-Trichlorophenol	88-06-2	36	U 36	180		1

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C SIM</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10138	Acenaphthene	83-32-9	0.72	U 0.72	1.8		1
10138	Acenaphthylene	208-96-8	0.36	U 0.36	1.8		1
10138	Anthracene	120-12-7	0.36	U 0.36	1.8		1
10138	Benzo(a)anthracene	56-55-3	1.4	J 0.72	1.8		1
10138	Benzo(a)pyrene	50-32-8	2.6	U 0.72	1.8		1
10138	Benzo(b)fluoranthene	205-99-2	6.2	U 0.72	1.8		1
10138	Benzo(g,h,i)perylene	191-24-2	2.6	U 0.72	1.8		1
10138	Benzo(k)fluoranthene	207-08-9	1.5	J 0.72	1.8		1
10138	Butylbenzylphthalate	85-68-7	6.5	U 6.5	19		1
10138	Di-n-butylphthalate	84-74-2	6.5	U 6.5	19		1
10138	Chrysene	218-01-9	4.7	U 0.36	1.8		1
10138	Dibenz(a,h)anthracene	53-70-3	0.99	J 0.72	1.8		1
10138	Diethylphthalate	84-66-2	6.5	U 6.5	19		1
10138	Dimethylphthalate	131-11-3	6.5	U 6.5	19		1
10138	Fluoranthene	206-44-0	1.8	U 0.72	1.8		1
10138	Fluorene	86-73-7	0.72	U 0.72	1.8		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	1.1	J 0.72	1.8		1
10138	1-Methylnaphthalene	90-12-0	0.72	U 0.72	1.8		1
10138	2-Methylnaphthalene	91-57-6	0.72	U 0.72	1.8		1
10138	Naphthalene	91-20-3	1.0	J 0.72	1.8		1
10138	N-Nitrosodimethylamine	62-75-9	0.72	U 0.72	1.8		1
10138	Di-n-octylphthalate	117-84-0	6.5	U 6.5	19		1
10138	Phenanthrene	85-01-8	0.72	U 0.72	1.8		1
10138	Pyrene	129-00-0	2.2	U 0.72	1.8		1

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Herbicides</b>	<b>SW-846 8151A</b>		<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10401	2,4-D	94-75-7	1.3	U 1.3	3.9		1
10401	Dalapon	75-99-0	4.8	U 4.8	9.7		1
10401	2,4-DB	94-82-6	2.1	U 0.67	1.8		1
10401	Dicamba	1918-00-9	0.43	U 0.43	1.3		1
10401	Dinoseb	88-85-7	0.87	U 0.87	2.6		1
10401	2,4-DP (Dichlorprop)	120-36-5	0.87	U 0.87	1.8		1
10401	MCPA	94-74-6	82	U 82	270		1
10401	MCPP (Mecoprop)	93-65-2	170	U 170	270		1
10401	2,4,5-T	93-76-5	0.089	U 0.089	0.18		1
10401	2,4,5-TP	93-72-1	0.081	U 0.081	0.18		1

The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported.

Due to interfering peaks on the chromatogram, the values reported for MCPA represent the lowest reporting limits attainable.

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Pesticides/PCBs</b>	<b>SW-846 8081A</b>		<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	

\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-235-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-235-SA5B-SS-0.0-0.5

LLI Sample # SW 6162955  
 LLI Group # 1225039  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 11:00

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3512 SDG#: DE035-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Pesticides/PCBs</b>		<b>SW-846 8081A</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
01363	Aldrin	309-00-2	0.071 U	0.071	0.18		1
01363	Alpha BHC	319-84-6	0.037 U	0.037	0.18		1
01363	Beta BHC	319-85-7	0.065 U	0.065	0.18		1
01363	Gamma BHC - Lindane	58-89-9	0.037 U	0.037	0.18		1
01363	Chlordane	57-74-9	0.87 U	0.87	3.7		1
01363	p,p-DDD	72-54-8	0.071 U	0.071	0.37		1
01363	p,p-DDE	72-55-9	0.093 U	0.093	0.37		1
01363	p,p-DDT	50-29-3	0.38 U	0.38	0.38		1
01363	Delta BHC	319-86-8	0.039 U	0.039	0.18		1
01363	Dieldrin	60-57-1	0.074 U	0.074	0.37		1
01363	Endosulfan I	959-98-8	0.048 U	0.048	0.18		1
01363	Endosulfan II	33213-65-9	0.071 U	0.071	0.37		1
01363	Endosulfan Sulfate	1031-07-8	0.14 U	0.14	0.37		1
01363	Endrin	72-20-8	0.071 U	0.071	0.37		1
01363	Endrin Aldehyde	7421-93-4	0.14 U	0.14	0.37		1
01363	Endrin Ketone	53494-70-5	0.071 U	0.071	0.37		1
01363	Heptachlor	76-44-8	0.065 U	0.065	0.18		1
01363	Heptachlor Epoxide	1024-57-3	0.037 U	0.037	0.18		1
01363	Methoxychlor	72-43-5	0.37 U	0.37	1.8		1
01363	Mirex	2385-85-5	0.15 U	0.15	0.37		1
01363	Toxaphene	8001-35-2	2.4 U	2.4	7.1		1

Various analytes in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported. Due to interfering peaks on the chromatogram from the presence of PCBs, the values reported represent the lowest reporting limits attainable. Despite numerous cleanup methods, our usual reporting limits were not attained.

<b>Pesticides/PCBs</b>		<b>SW-846 8082</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.6	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.6	1
10225	Aroclor 5460	11126-42-4	1.7 J	1.1	3.6	1
10225	PCB-1016	12674-11-2	0.36 U	0.36	1.8	1
10225	PCB-1221	11104-28-2	0.54 U	0.54	1.8	1
10225	PCB-1232	11141-16-5	0.56 U	0.56	1.8	1
10225	PCB-1242	53469-21-9	0.54 U	0.54	1.8	1
10225	PCB-1248	12672-29-6	0.36 U	0.36	1.8	1
10225	PCB-1254	11097-69-1	1.9	0.36	1.8	1
10225	PCB-1260	11096-82-5	1.4 J	0.36	1.8	1
10225	PCB-1262	37324-23-5	0.36 U	0.36	1.8	1
10225	PCB-1268	11100-14-4	0.36 U	0.36	1.8	1

The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.

<b>Metals</b>		<b>SW-846 6010B</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>
01643	Aluminum	7429-90-5	13,700	5.29	21.0	1
07914	Boron	7440-42-8	6.16	0.935	5.25	1
01650	Calcium	7440-70-2	9,690	6.44	21.0	1
01654	Iron	7439-89-6	22,400	4.95	21.0	1
01656	Lithium	7439-93-2	24.8	0.23	2.1	1

\*=This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-235-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-235-SA5B-SS-0.0-0.5

LLI Sample # SW 6162955  
 LLI Group # 1225039  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 11:00

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3512 SDG#: DE035-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Metals</b>							
<b>SW-846 6010B</b>			<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
01657	Magnesium	7439-95-4	4,940	2.67	10.5		1
06958	Manganese	7439-96-5	289	0.0820	0.525		1
10145	Phosphorus	7723-14-0	503	0.588	10.5		1
01662	Potassium	7440-09-7	3,000	18.9	52.5		1
01667	Sodium	7440-23-5	86.4 J	39.2	105		1
07968	Strontium	7440-24-6	29.8	0.0651	0.525		1
06969	Tin	7440-31-5	2.31 J	1.05	10.5		1
06970	Titanium	7440-32-6	1,390	0.411	1.08		1
10146	Zirconium	7440-67-7	1.09 J	0.883	5.25		1
<b>SW-846 6020</b>			<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
06124	Antimony	7440-36-0	0.186 J	0.0637	0.212		2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.							
06125	Arsenic	7440-38-2	6.20	0.0637	0.424		2
06126	Barium	7440-39-3	109	0.115	0.424		2
06127	Beryllium	7440-41-7	0.543	0.0170	0.106		2
06128	Cadmium	7440-43-9	0.193	0.0382	0.106		2
06131	Chromium	7440-47-3	21.6	0.127	0.424		2
06132	Cobalt	7440-48-4	6.24	0.0212	0.106		2
06133	Copper	7440-50-8	11.1	0.0700	0.424		2
06135	Lead	7439-92-1	8.34	0.0110	0.212		2
06138	Molybdenum	7439-98-7	0.578	0.0531	0.106		2
06139	Nickel	7440-02-0	13.9	0.106	0.424		2
06141	Selenium	7782-49-2	0.110 J	0.0424	0.424		2
06142	Silver	7440-22-4	0.0302 J	0.0127	0.106		2
06145	Thallium	7440-28-0	0.341	0.0318	0.106		2
06148	Vanadium	7440-62-2	44.5	0.0233	0.106		2
06149	Zinc	7440-66-6	91.5	0.594	3.18		2
<b>SW-846 7471A</b>			<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
00159	Mercury	7439-97-6	0.0186 J	0.0031	0.107		1
<b>Wet Chemistry</b>							
<b>EPA 300.0</b>			<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	2.4	0.87	1.1		1
<b>EPA 314.0</b>			<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.7 U	9.7	32.5		1
<b>SW-846 7199</b>			<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
05892	3a Cr VI by EPA 7199	18540-29-9	2.2	0.22	1.1		1
<b>ASTM D1498</b>			<b>mV</b>	<b>mV</b>	<b>mV</b>	<b>mV</b>	
01821	Oxidation Reduction Potential	n.a.	464	10.0	10.0		1
The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.							

\*=This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-235-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-235-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162955  
**LLI Group #** 1225039  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 11:00

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3512 SDG#: DE035-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Wet Chemistry</b>							
		<b>SW-846 9045C modified</b>	Std. Units	Std. Units	Std. Units	Std. Units	
00394	22a pH by 9045C	n.a.	8.67	0.0100	0.0100		1
<b>Wet Chemistry</b>							
		<b>EPA 160.3 modified</b>	%	%	%	%	
11624	28a Moisture Content by 160.3	n.a.	7.6	0.50	0.50		1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.							

### General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10350SLB026	01/01/2011	05:22	Ryan P Byrne	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10349SLH026	12/23/2010	02:57	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10349SLH026	12/16/2010	06:15	Joseph S Feister	1
00381	BNA Soil Sonication	SW-846 3550B	1	10350SLB026	12/16/2010	17:30	Sally L Appleyard	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	103510024A	12/29/2010	12:29	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	103510029A	12/29/2010	20:20	Jamie L Brillhart	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	103500026A	12/22/2010	05:59	Lindsey K Lafferty	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	103510029A	12/20/2010	07:00	Joseph S Feister	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	103500026A	12/17/2010	00:40	David V Hershey Jr	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	103510024A	12/20/2010	01:40	David V Hershey Jr	1
01643	Aluminum	SW-846 6010B	1	103495708006	12/17/2010	20:07	John P Hook	1
07914	Boron	SW-846 6010B	1	103495708006	12/17/2010	20:07	John P Hook	1
01650	Calcium	SW-846 6010B	1	103495708006	12/17/2010	20:07	John P Hook	1
01654	Iron	SW-846 6010B	1	103495708006	12/17/2010	20:07	John P Hook	1
01656	Lithium	SW-846 6010B	1	103495708006	12/21/2010	08:44	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	103495708006	12/17/2010	20:07	John P Hook	1
06958	Manganese	SW-846 6010B	1	103495708006	12/17/2010	20:07	John P Hook	1
10145	Phosphorus	SW-846 6010B	1	103495708006	12/17/2010	20:07	John P Hook	1
01662	Potassium	SW-846 6010B	1	103495708006	12/17/2010	20:07	John P Hook	1
01667	Sodium	SW-846 6010B	1	103495708006	12/17/2010	20:07	John P Hook	1

\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-235-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-235-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162955  
**LLI Group #** 1225039  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 11:00

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3512 SDG#: DE035-12

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07968	Strontium	SW-846 6010B	1	103495708006	12/17/2010 20:07	John P Hook	1
06969	Tin	SW-846 6010B	1	103495708006	12/17/2010 20:07	John P Hook	1
06970	Titanium	SW-846 6010B	1	103555708001	12/22/2010 08:35	Joanne M Gates	1
10146	Zirconium	SW-846 6010B	1	103495708006	12/21/2010 08:44	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	103491026005A	12/23/2010 12:28	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103491026005A	12/23/2010 12:28	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103491026005D	12/23/2010 12:28	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103491026005A	12/23/2010 12:28	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103491026005A	12/23/2010 12:28	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103491026005A	12/23/2010 12:28	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103491026005A	12/23/2010 12:28	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103491026005A	12/23/2010 12:28	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103491026005A	12/23/2010 12:28	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103491026005C	12/23/2010 12:28	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103491026005A	12/23/2010 12:28	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103491026005B	12/23/2010 12:28	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103491026005A	12/23/2010 12:28	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103491026005A	12/23/2010 12:28	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103491026005A	12/23/2010 12:28	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	103491026005A	12/23/2010 12:28	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	103495711005	12/16/2010 06:54	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	103495708006	12/15/2010 20:01	Annamaria Stipkovits	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	103555708001	12/21/2010 12:28	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103491026005	12/15/2010 20:03	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	103495711005	12/15/2010 22:15	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10362362201B	12/30/2010 04:20	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10362362201A	12/29/2010 04:42	Ashley M Adams	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	10358243201A	12/29/2010 14:38	Ashley M Adams	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10362362201B	12/28/2010 11:00	Erik J Frederiksen	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10362362203A	12/28/2010 14:00	Nancy J Shoop	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10348182103B	12/14/2010 13:00	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10348039403B	12/14/2010 13:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10358243201A	12/24/2010 07:00	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	1	10349162402A	12/15/2010 09:36	William C Schwebel	1

\*—This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.



# Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

**Sample Description:** SL-287-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-287-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162956  
**LLI Group #** 1225039  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 09:55

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3513 SDG#: DE035-13

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04688	Aniline	62-53-3	180	U 180	540		1
04688	Benzidine	92-87-5	1,300	U 1,300	3,600		1
04688	Benzoic acid	65-85-0	180	U 180	540		1
04688	Benzyl alcohol	100-51-6	180	U 180	540		1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180		1
04688	Carbazole	86-74-8	18	U 18	180		1
04688	4-Chloro-3-methylphenol	59-50-7	36	U 36	180		1
04688	4-Chloroaniline	106-47-8	72	U 72	180		1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180		1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180		1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180		1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180		1
04688	2-Chlorophenol	95-57-8	18	U 18	180		1
04688	4-Chlorophenyl-phenylether	7005-72-3	36	U 36	180		1
04688	Dibenzofuran	132-64-9	18	U 18	180		1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180		1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180		1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180		1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	360		1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180		1
04688	2,4-Dimethylphenol	105-67-9	36	U 36	180		1
04688	3,5-Dimethylphenol	108-68-9	36	U 36	180		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	540		1
04688	2,4-Dinitrophenol	51-28-5	720	U 720	2,200		1
04688	2,4-Dinitrotoluene	121-14-2	36	U 36	180		1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180		1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180		1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	19	J 18	360		1
04688	Hexachlorobenzene	118-74-1	18	U 18	180		1
04688	Hexachlorobutadiene	87-68-3	72	U 72	180		1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	540		1
04688	Hexachloroethane	67-72-1	18	U 18	180		1
04688	Isophorone	78-59-1	18	U 18	180		1
04688	2-Methylphenol	95-48-7	36	U 36	180		1
04688	4-Methylphenol	106-44-5	36	U 36	180		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	18	U 18	180		1
04688	3-Nitroaniline	99-09-2	36	U 36	180		1
04688	4-Nitroaniline	100-01-6	72	U 72	180		1
04688	Nitrobenzene	98-95-3	18	U 18	180		1
04688	2-Nitrophenol	88-75-5	18	U 18	180		1
04688	4-Nitrophenol	100-02-7	180	U 180	540		1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180		1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	180	U 180	540		1

\*=This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-287-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-287-SA5B-SS-0.0-0.5

LLI Sample # SW 6162956  
 LLI Group # 1225039  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 09:55

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3513 SDG#: DE035-13

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04688	Phenol	108-95-2	18	U 18	180		1
04688	1,2,4-Trichlorobenzene	120-82-1	18	U 18	180		1
04688	2,4,5-Trichlorophenol	95-95-4	36	U 36	180		1
04688	2,4,6-Trichlorophenol	88-06-2	36	U 36	180		1
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C SIM</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10138	Acenaphthene	83-32-9	0.72	U 0.72	1.8		1
10138	Acenaphthylene	208-96-8	0.36	U 0.36	1.8		1
10138	Anthracene	120-12-7	0.62	J 0.36	1.8		1
10138	Benzo(a)anthracene	56-55-3	0.97	J 0.72	1.8		1
10138	Benzo(a)pyrene	50-32-8	1.1	J 0.72	1.8		1
10138	Benzo(b)fluoranthene	205-99-2	2.8	U 0.72	1.8		1
10138	Benzo(g,h,i)perylene	191-24-2	0.72	U 0.72	1.8		1
10138	Benzo(k)fluoranthene	207-08-9	0.83	J 0.72	1.8		1
10138	Butylbenzylphthalate	85-68-7	6.5	U 6.5	19		1
10138	Di-n-butylphthalate	84-74-2	6.5	U 6.5	19		1
10138	Chrysene	218-01-9	1.9	U 0.36	1.8		1
10138	Dibenz(a,h)anthracene	53-70-3	0.72	U 0.72	1.8		1
10138	Diethylphthalate	84-66-2	6.5	U 6.5	19		1
10138	Dimethylphthalate	131-11-3	6.5	U 6.5	19		1
10138	Fluoranthene	206-44-0	3.7	U 0.72	1.8		1
10138	Fluorene	86-73-7	0.72	U 0.72	1.8		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.72	U 0.72	1.8		1
10138	1-Methylnaphthalene	90-12-0	0.72	U 0.72	1.8		1
10138	2-Methylnaphthalene	91-57-6	0.72	U 0.72	1.8		1
10138	Naphthalene	91-20-3	0.72	U 0.72	1.8		1
10138	N-Nitrosodimethylamine	62-75-9	0.72	U 0.72	1.8		1
10138	Di-n-octylphthalate	117-84-0	6.5	U 6.5	19		1
10138	Phenanthrene	85-01-8	1.7	J 0.72	1.8		1
10138	Pyrene	129-00-0	2.9	U 0.72	1.8		1
<b>Herbicides</b>	<b>SW-846 8151A</b>		<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10401	2,4-D	94-75-7	1.6	J 1.3	3.9		1
10401	Dalapon	75-99-0	4.8	U 4.8	9.7		1
10401	2,4-DB	94-82-6	0.67	U 0.67	1.8		1
10401	Dicamba	1918-00-9	0.43	U 0.43	1.3		1
10401	Dinoseb	88-85-7	0.86	U 0.86	2.6		1
10401	2,4-DP (Dichlorprop)	120-36-5	0.86	U 0.86	1.8		1
10401	MCPA	94-74-6	82	U 82	270		1
10401	MCPP (Mecoprop)	93-65-2	300	U 81	270		1
10401	2,4,5-T	93-76-5	0.089	U 0.089	0.18		1
10401	2,4,5-TP	93-72-1	0.081	U 0.081	0.18		1
<p>The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported.</p>							
<b>Pesticides/PCBs</b>	<b>SW-846 8081A</b>		<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
01363	Aldrin	309-00-2	0.071	U 0.071	0.18		1
01363	Alpha BHC	319-84-6	0.037	U 0.037	0.18		1

\*—This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-287-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-287-SA5B-SS-0.0-0.5

LLI Sample # SW 6162956  
 LLI Group # 1225039  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 09:55

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3513 SDG#: DE035-13

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Pesticides/PCBs</b>		<b>SW-846 8081A</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
01363	Beta BHC	319-85-7	0.065 U	0.065	0.18		1
01363	Gamma BHC - Lindane	58-89-9	0.037 U	0.037	0.18		1
01363	Chlordane	57-74-9	1.9 U	1.9	3.7		1
01363	p,p-DDD	72-54-8	0.071 U	0.071	0.37		1
01363	p,p-DDE	72-55-9	0.18 U	0.18	0.37		1
01363	p,p-DDT	50-29-3	0.32 U	0.32	0.37		1
01363	Delta BHC	319-86-8	0.039 U	0.039	0.18		1
01363	Dieldrin	60-57-1	0.071 U	0.071	0.37		1
01363	Endosulfan I	959-98-8	0.048 U	0.048	0.18		1
01363	Endosulfan II	33213-65-9	0.19 U	0.19	0.37		1
01363	Endosulfan Sulfate	1031-07-8	0.13 U	0.13	0.37		1
01363	Endrin	72-20-8	0.071 U	0.071	0.37		1
01363	Endrin Aldehyde	7421-93-4	0.29 U	0.29	0.37		1
01363	Endrin Ketone	53494-70-5	0.071 U	0.071	0.37		1
01363	Heptachlor	76-44-8	0.11 U	0.11	0.18		1
01363	Heptachlor Epoxide	1024-57-3	0.037 U	0.037	0.18		1
01363	Methoxychlor	72-43-5	0.37 U	0.37	1.8		1
01363	Mirex	2385-85-5	0.12 U	0.12	0.37		1
01363	Toxaphene	8001-35-2	2.4 U	2.4	7.1		1

Various analytes in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported.

Due to interfering peaks on the chromatogram from the presence of PCBs, the values reported represent the lowest reporting limits attainable. Despite numerous cleanup methods, our usual reporting limits were not attained.

<b>Pesticides/PCBs</b>		<b>SW-846 8082</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.6	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.6	1
10225	Aroclor 5460	11126-42-4	1.9 J	1.1	3.6	1
10225	PCB-1016	12674-11-2	0.36 U	0.36	1.8	1
10225	PCB-1221	11104-28-2	0.54 U	0.54	1.8	1
10225	PCB-1232	11141-16-5	0.56 U	0.56	1.8	1
10225	PCB-1242	53469-21-9	0.54 U	0.54	1.8	1
10225	PCB-1248	12672-29-6	0.36 U	0.36	1.8	1
10225	PCB-1254	11097-69-1	0.36 U	0.36	1.8	1
10225	PCB-1260	11096-82-5	6.2	0.36	1.8	1
10225	PCB-1262	37324-23-5	0.36 U	0.36	1.8	1
10225	PCB-1268	11100-14-4	0.36 U	0.36	1.8	1

The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.

<b>Metals</b>		<b>SW-846 6010B</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>
01643	Aluminum	7429-90-5	8,050	5.33	21.2	1
07914	Boron	7440-42-8	4.78 J	0.943	5.30	1
01650	Calcium	7440-70-2	4,300	6.50	21.2	1
01654	Iron	7439-89-6	13,900	4.99	21.2	1
01656	Lithium	7439-93-2	17.7	0.23	2.1	1
01657	Magnesium	7439-95-4	2,890	2.69	10.6	1
06958	Manganese	7439-96-5	215	0.0827	0.530	1

\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-287-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-287-SA5B-SS-0.0-0.5

LLI Sample # SW 6162956  
 LLI Group # 1225039  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 09:55

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3513 SDG#: DE035-13

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Metals</b>							
		<b>SW-846 6010B</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
10145	Phosphorus	7723-14-0	362	0.594	10.6		1
01662	Potassium	7440-09-7	2,740	19.1	53.0		1
01667	Sodium	7440-23-5	66.7 J	39.5	106		1
07968	Strontium	7440-24-6	12.9	0.0657	0.530		1
06969	Tin	7440-31-5	1.99 J	1.06	10.6		1
06970	Titanium	7440-32-6	821	0.395	1.04		1
10146	Zirconium	7440-67-7	1.22 J	0.890	5.30		1
		<b>SW-846 6020</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
06124	Antimony	7440-36-0	0.0875 J	0.0630	0.210		2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	3.09	0.0630	0.420		2
06126	Barium	7440-39-3	67.7	0.113	0.420		2
06127	Beryllium	7440-41-7	0.335	0.0168	0.105		2
06128	Cadmium	7440-43-9	0.206	0.0378	0.105		2
06131	Chromium	7440-47-3	11.4	0.126	0.420		2
06132	Cobalt	7440-48-4	3.57	0.0210	0.105		2
06133	Copper	7440-50-8	5.20	0.0693	0.420		2
06135	Lead	7439-92-1	5.57	0.0109	0.210		2
06138	Molybdenum	7439-98-7	0.397	0.0525	0.105		2
06139	Nickel	7440-02-0	7.07	0.105	0.420		2
06141	Selenium	7782-49-2	0.0751 J	0.0420	0.420		2
06142	Silver	7440-22-4	0.0148 J	0.0126	0.105		2
06145	Thallium	7440-28-0	0.217	0.0315	0.105		2
06148	Vanadium	7440-62-2	22.9	0.0231	0.105		2
06149	Zinc	7440-66-6	59.8	0.588	3.15		2
		<b>SW-846 7471A</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
00159	Mercury	7439-97-6	0.0029 U	0.0029	0.102		1
<b>Wet Chemistry</b>							
		<b>EPA 300.0</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	0.86 U	0.86	1.1		1
		<b>EPA 314.0</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.7 U	9.7	32.4		1
		<b>SW-846 7199</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
05892	3a Cr VI by EPA 7199	18540-29-9	0.33 J	0.22	1.1		1
		<b>ASTM D1498</b>	<b>mV</b>	<b>mV</b>	<b>mV</b>	<b>mV</b>	
01821	Oxidation Reduction Potential	n.a.	479	10.0	10.0		1
	The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.						

\*-This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-287-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-287-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162956  
**LLI Group #** 1225039  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 09:55

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3513 SDG#: DE035-13

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Wet Chemistry</b>							
		<b>SW-846 9045C modified</b>	Std. Units	Std. Units	Std. Units	Std. Units	
00394	22a pH by 9045C	n.a.	8.24	0.0100	0.0100		1
<b>Wet Chemistry</b>							
		<b>EPA 160.3 modified</b>	%	%	%	%	
11624	28a Moisture Content by 160.3	n.a.	7.5	0.50	0.50		1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.							

### General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10350SLB026	01/01/2011 05:47	Ryan P Byrne	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10349SLH026	12/23/2010 03:31	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10349SLH026	12/16/2010 06:15	Joseph S Feister	1
00381	BNA Soil Sonication	SW-846 3550B	1	10350SLB026	12/16/2010 17:30	Sally L Appleyard	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	103510024A	01/07/2011 10:29	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	103510029A	12/29/2010 20:34	Jamie L Brillhart	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	103500026A	12/22/2010 06:18	Lindsey K Lafferty	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	103510029A	12/20/2010 07:00	Joseph S Feister	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	103500026A	12/17/2010 00:40	David V Hershey Jr	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	103510024A	12/20/2010 01:40	David V Hershey Jr	1
01643	Aluminum	SW-846 6010B	1	103495708006	12/17/2010 20:17	John P Hook	1
07914	Boron	SW-846 6010B	1	103495708006	12/17/2010 20:17	John P Hook	1
01650	Calcium	SW-846 6010B	1	103495708006	12/17/2010 20:17	John P Hook	1
01654	Iron	SW-846 6010B	1	103495708006	12/17/2010 20:17	John P Hook	1
01656	Lithium	SW-846 6010B	1	103495708006	12/22/2010 16:23	John P Hook	1
01657	Magnesium	SW-846 6010B	1	103495708006	12/17/2010 20:17	John P Hook	1
06958	Manganese	SW-846 6010B	1	103495708006	12/17/2010 20:17	John P Hook	1
10145	Phosphorus	SW-846 6010B	1	103495708006	12/17/2010 20:17	John P Hook	1
01662	Potassium	SW-846 6010B	1	103495708006	12/17/2010 20:17	John P Hook	1
01667	Sodium	SW-846 6010B	1	103495708006	12/17/2010 20:17	John P Hook	1
07968	Strontium	SW-846 6010B	1	103495708006	12/17/2010 20:17	John P Hook	1

\*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-287-SA5B-SS-0.0-0.5 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-287-SA5B-SS-0.0-0.5

**LLI Sample #** SW 6162956  
**LLI Group #** 1225039  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 09:55

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3513 SDG#: DE035-13

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06969	Tin	SW-846 6010B	1	103495708006	12/17/2010 20:17	John P Hook	1
06970	Titanium	SW-846 6010B	1	103555708001	12/22/2010 08:39	Joanne M Gates	1
10146	Zirconium	SW-846 6010B	1	103495708006	12/21/2010 08:47	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	103491026005A	12/23/2010 12:31	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103491026005A	12/23/2010 12:31	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103491026005D	12/23/2010 12:31	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103491026005A	12/23/2010 12:31	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103491026005A	12/23/2010 12:31	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103491026005A	12/23/2010 12:31	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103491026005A	12/23/2010 12:31	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103491026005A	12/23/2010 12:31	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103491026005A	12/23/2010 12:31	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103491026005C	12/23/2010 12:31	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103491026005A	12/23/2010 12:31	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103491026005B	12/23/2010 12:31	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103491026005A	12/23/2010 12:31	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103491026005A	12/23/2010 12:31	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103491026005A	12/23/2010 12:31	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	103491026005A	12/23/2010 12:31	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	103495711005	12/16/2010 06:55	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	103495708006	12/15/2010 20:01	Annamaria Stipkovits	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	103555708001	12/21/2010 12:28	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103491026005	12/15/2010 20:03	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	103495711005	12/15/2010 22:15	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10362362201B	12/30/2010 06:00	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10362362201A	12/29/2010 05:06	Ashley M Adams	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	10358243201A	12/29/2010 14:58	Ashley M Adams	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10362362201B	12/28/2010 11:00	Erik J Frederiksen	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10362362203A	12/28/2010 14:00	Nancy J Shoop	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10348182103B	12/14/2010 13:00	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10348039403B	12/14/2010 13:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10358243201A	12/24/2010 07:00	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	1	10349162402A	12/15/2010 09:36	William C Schwebel	1

\*—This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-005-SA5C-SB-4.0-5.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-005-SA5C-SB-4.0-5.0

LLI Sample # SW 6162957  
 LLI Group # 1225039  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 15:29

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3514 SDG#: DE035-14

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
06192	Acetone	67-64-1	7.3 U	7.3	8.7		0.94
06192	Benzene	71-43-2	0.11 U	0.11	4.3		0.94
06192	Bromobenzene	108-86-1	0.14 U	0.14	4.3		0.94
06192	Bromochloromethane	74-97-5	0.36 U	0.36	4.3		0.94
06192	Bromodichloromethane	75-27-4	0.09 U	0.09	4.3		0.94
06192	Bromoform	75-25-2	0.43 U	0.43	4.3		0.94
06192	Bromomethane	74-83-9	0.27 U	0.27	4.3		0.94
06192	2-Butanone	78-93-3	1.3 U	1.3	8.7		0.94
06192	n-Butylbenzene	104-51-8	0.13 U	0.13	4.3		0.94
06192	sec-Butylbenzene	135-98-8	0.06 U	0.06	4.3		0.94
06192	tert-Butylbenzene	98-06-6	0.17 U	0.17	4.3		0.94
06192	Carbon Tetrachloride	56-23-5	0.15 U	0.15	4.3		0.94
06192	Chlorobenzene	108-90-7	0.12 U	0.12	4.3		0.94
06192	Chloroethane	75-00-3	0.14 U	0.14	4.3		0.94
06192	2-Chloroethyl Vinyl Ether	110-75-8	0.32 U	0.32	4.3		0.94
06192	Chloroform	67-66-3	0.13 U	0.13	4.3		0.94
06192	Chloromethane	74-87-3	0.36 U	0.36	4.3		0.94
06192	2-Chlorotoluene	95-49-8	0.15 U	0.15	4.3		0.94
06192	4-Chlorotoluene	106-43-4	0.15 U	0.15	4.3		0.94
06192	Chlorotrifluoroethene	79-38-9	0.54 U	0.54	5.4		0.94
06192	1,2-Dibromo-3-chloropropane	96-12-8	0.76 U	0.76	4.3		0.94
06192	Dibromochloromethane	124-48-1	0.22 U	0.22	4.3		0.94
06192	1,2-Dibromoethane	106-93-4	0.18 U	0.18	4.3		0.94
06192	Dibromomethane	74-95-3	0.26 U	0.26	4.3		0.94
06192	1,2-Dichlorobenzene	95-50-1	0.1 U	0.1	4.3		0.94
06192	1,3-Dichlorobenzene	541-73-1	0.13 U	0.13	4.3		0.94
06192	1,4-Dichlorobenzene	106-46-7	0.17 U	0.17	4.3		0.94
06192	Dichlorodifluoromethane	75-71-8	0.13 U	0.13	4.3		0.94
06192	1,1-Dichloroethane	75-34-3	0.11 U	0.11	4.3		0.94
06192	1,2-Dichloroethane	107-06-2	0.16 U	0.16	4.3		0.94
06192	1,1-Dichloroethene	75-35-4	0.42 U	0.42	4.3		0.94
06192	cis-1,2-Dichloroethene	156-59-2	0.21 U	0.21	4.3		0.94
06192	trans-1,2-Dichloroethene	156-60-5	0.13 U	0.13	4.3		0.94
06192	1,2-Dichloropropane	78-87-5	0.18 U	0.18	4.3		0.94
06192	1,3-Dichloropropane	142-28-9	0.09 U	0.09	4.3		0.94
06192	2,2-Dichloropropane	594-20-7	0.18 U	0.18	4.3		0.94
06192	1,1-Dichloropropene	563-58-6	0.14 U	0.14	4.3		0.94
06192	cis-1,3-Dichloropropene	10061-01-5	0.17 U	0.17	4.3		0.94
06192	trans-1,3-Dichloropropene	10061-02-6	0.18 U	0.18	4.3		0.94
06192	Ethylbenzene	100-41-4	0.06 U	0.06	4.3		0.94
06192	Freon 113	76-13-1	0.12 U	0.12	4.3		0.94
06192	Freon 133a	75-88-7	0.54 U	0.54	5.4		0.94
06192	Hexachlorobutadiene	87-68-3	0.15 U	0.15	4.3		0.94
06192	2-Hexanone	591-78-6	1.7 U	1.7	8.7		0.94
06192	Isopropylbenzene	98-82-8	0.06 U	0.06	4.3		0.94
06192	p-Isopropyltoluene	99-87-6	0.12 U	0.12	4.3		0.94
06192	Methyl Tertiary Butyl Ether	1634-04-4	0.23 U	0.23	4.3		0.94
06192	4-Methyl-2-pentanone	108-10-1	0.42 U	0.42	8.7		0.94
06192	Methylene Chloride	75-09-2	0.81 U	0.26	4.3		0.94
06192	n-Propylbenzene	103-65-1	0.08 U	0.08	4.3		0.94

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Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-005-SA5C-SB-4.0-5.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-005-SA5C-SB-4.0-5.0

LLI Sample # SW 6162957  
 LLI Group # 1225039  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 15:29

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3514 SDG#: DE035-14

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
06192	Styrene	100-42-5	0.11 U	0.11	4.3		0.94
06192	1,1,1,2-Tetrachloroethane	630-20-6	0.12 U	0.12	4.3		0.94
06192	1,1,2,2-Tetrachloroethane	79-34-5	0.25 U	0.25	4.3		0.94
06192	Tetrachloroethene	127-18-4	0.22 U	0.22	4.3		0.94
06192	Toluene	108-88-3	0.11 J	0.09	4.3		0.94
06192	1,2,3-Trichlorobenzene	87-61-6	0.15 U	0.15	4.3		0.94
06192	1,2,4-Trichlorobenzene	120-82-1	0.19 U	0.19	4.3		0.94
06192	1,1,1-Trichloroethane	71-55-6	0.22 U	0.22	4.3		0.94
06192	1,1,2-Trichloroethane	79-00-5	0.29 U	0.29	4.3		0.94
06192	Trichloroethene	79-01-6	0.16 U	0.16	4.3		0.94
06192	Trichlorofluoromethane	75-69-4	0.31 U	0.31	4.3		0.94
06192	1,2,3-Trichloropropane	96-18-4	0.36 U	0.36	4.3		0.94
06192	1,2,4-Trimethylbenzene	95-63-6	0.43 U	0.43	4.3		0.94
06192	1,3,5-Trimethylbenzene	108-67-8	0.11 U	0.11	4.3		0.94
06192	Vinyl Chloride	75-01-4	0.22 U	0.22	4.3		0.94
06192	m+p-Xylene	179601-23-1	0.18 U	0.18	4.3		0.94
06192	o-Xylene	95-47-6	0.18 U	0.18	4.3		0.94
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B SIM</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10326	1,4-Dioxane	123-91-1	5.2 U	5.2	16		22.56
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>EPA 1625C</b>	<b>ng/kg</b>	<b>ng/kg</b>	<b>ng/kg</b>	<b>ng/kg</b>	
11622	N-Nitrosodimethylamine	62-75-9	99.5	19.2	38.4		1
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04688	Aniline	62-53-3	190	U 190	580		1
04688	Benzidine	92-87-5	1,300	U 1,300	3,800		1
04688	Benzoic acid	65-85-0	190	U 190	580		1
04688	Benzyl alcohol	100-51-6	190	U 190	580		1
04688	4-Bromophenyl-phenylether	101-55-3	19	U 19	190		1
04688	Carbazole	86-74-8	19	U 19	190		1
04688	4-Chloro-3-methylphenol	59-50-7	38	U 38	190		1
04688	4-Chloroaniline	106-47-8	77	U 77	190		1
04688	bis(2-Chloroethoxy)methane	111-91-1	19	U 19	190		1
04688	bis(2-Chloroethyl)ether	111-44-4	19	U 19	190		1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	19	U 19	190		1
04688	2-Chloronaphthalene	91-58-7	19	U 19	190		1
04688	2-Chlorophenol	95-57-8	19	U 19	190		1
04688	4-Chlorophenyl-phenylether	7005-72-3	38	U 38	190		1
04688	Dibenzofuran	132-64-9	19	U 19	190		1
04688	1,2-Dichlorobenzene	95-50-1	19	U 19	190		1
04688	1,3-Dichlorobenzene	541-73-1	19	U 19	190		1
04688	1,4-Dichlorobenzene	106-46-7	19	U 19	190		1
04688	3,3'-Dichlorobenzidine	91-94-1	120	U 120	380		1
04688	2,4-Dichlorophenol	120-83-2	19	U 19	190		1
04688	2,4-Dimethylphenol	105-67-9	38	U 38	190		1
04688	3,5-Dimethylphenol	108-68-9	38	U 38	190		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	190	U 190	580		1
04688	2,4-Dinitrophenol	51-28-5	770	U 770	2,300		1

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Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-005-SA5C-SB-4.0-5.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-005-SA5C-SB-4.0-5.0

**LLI Sample #** SW 6162957  
**LLI Group #** 1225039  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 15:29

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3514 SDG#: DE035-14

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
04688	2,4-Dinitrotoluene	121-14-2	38	U 38	190		1
04688	2,6-Dinitrotoluene	606-20-2	19	U 19	190		1
04688	1,2-Diphenylhydrazine	122-66-7	19	U 19	190		1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	23	J 19	380		1
04688	Hexachlorobenzene	118-74-1	19	U 19	190		1
04688	Hexachlorobutadiene	87-68-3	77	U 77	190		1
04688	Hexachlorocyclopentadiene	77-47-4	190	U 190	580		1
04688	Hexachloroethane	67-72-1	19	U 19	190		1
04688	Isophorone	78-59-1	19	U 19	190		1
04688	2-Methylphenol	95-48-7	38	U 38	190		1
04688	4-Methylphenol	106-44-5	38	U 38	190		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	19	U 19	190		1
04688	3-Nitroaniline	99-09-2	38	U 38	190		1
04688	4-Nitroaniline	100-01-6	77	U 77	190		1
04688	Nitrobenzene	98-95-3	19	U 19	190		1
04688	2-Nitrophenol	88-75-5	19	U 19	190		1
04688	4-Nitrophenol	100-02-7	190	U 190	580		1
04688	N-Nitroso-di-n-propylamine	621-64-7	19	U 19	190		1
04688	N-Nitrosodiphenylamine	86-30-6	19	U 19	190		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	190	U 190	580		1
04688	Phenol	108-95-2	19	U 19	190		1
04688	1,2,4-Trichlorobenzene	120-82-1	19	U 19	190		1
04688	2,4,5-Trichlorophenol	95-95-4	38	U 38	190		1
04688	2,4,6-Trichlorophenol	88-06-2	38	U 38	190		1
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C SIM</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10138	Acenaphthene	83-32-9	0.77	U 0.77	1.9		1
10138	Acenaphthylene	208-96-8	0.38	U 0.38	1.9		1
10138	Anthracene	120-12-7	0.38	U 0.38	1.9		1
10138	Benzo(a)anthracene	56-55-3	0.77	U 0.77	1.9		1
10138	Benzo(a)pyrene	50-32-8	0.77	U 0.77	1.9		1
10138	Benzo(b)fluoranthene	205-99-2	0.77	U 0.77	1.9		1
10138	Benzo(g,h,i)perylene	191-24-2	0.77	U 0.77	1.9		1
10138	Benzo(k)fluoranthene	207-08-9	0.77	U 0.77	1.9		1
10138	Butylbenzylphthalate	85-68-7	6.9	U 6.9	21		1
10138	Di-n-butylphthalate	84-74-2	6.9	U 6.9	21		1
10138	Chrysene	218-01-9	0.38	U 0.38	1.9		1
10138	Dibenz(a,h)anthracene	53-70-3	0.77	U 0.77	1.9		1
10138	Diethylphthalate	84-66-2	6.9	U 6.9	21		1
10138	Dimethylphthalate	131-11-3	6.9	U 6.9	21		1
10138	Fluoranthene	206-44-0	0.77	U 0.77	1.9		1
10138	Fluorene	86-73-7	0.77	U 0.77	1.9		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.77	U 0.77	1.9		1

\*=This limit was used in the evaluation of the final result  
 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-005-SA5C-SB-4.0-5.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-005-SA5C-SB-4.0-5.0

**LLI Sample #** SW 6162957  
**LLI Group #** 1225039  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 15:29

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3514 SDG#: DE035-14

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>GC/MS Semivolatiles SW-846 8270C SIM</b>							
10138	1-Methylnaphthalene	90-12-0	0.77 U	0.77	1.9	ug/kg	1
10138	2-Methylnaphthalene	91-57-6	0.77 U	0.77	1.9	ug/kg	1
10138	Naphthalene	91-20-3	0.77 U	0.77	1.9	ug/kg	1
10138	N-Nitrosodimethylamine	62-75-9	0.77 U	0.77	1.9	ug/kg	1
10138	Di-n-octylphthalate	117-84-0	6.9 U	6.9	21	ug/kg	1
10138	Phenanthrene	85-01-8	0.77 U	0.77	1.9	ug/kg	1
10138	Pyrene	129-00-0	0.77 U	0.77	1.9	ug/kg	1
<b>GC Volatiles TPH GRO SW-846 8015B mod</b>							
05551	9a TPH by EPA 8015B Gas C5-C12	n.a.	0.2 U	0.2	0.9	mg/kg	19.94
<b>Explosives SW-846 8330A</b>							
10132	4-Amino-2,6-Dinitrotoluene	19406-51-0	86 U	86	170	1000000	1
10132	2-Amino-4,6-Dinitrotoluene	35572-78-2	58 U	58	170	1000000	1
10132	2,6-Diamino-4-nitrotoluene	59229-75-3	120 U	120	350	1000000	1
10132	2,4-Diamino-6-nitrotoluene	6629-29-4	120 U	120	350	1000000	1
10132	1,3-Dinitrobenzene	99-65-0	58 U	58	170	1000000	1
10132	2,4-Dinitrotoluene	121-14-2	58 U	58	170	1000000	1
10132	2,6-Dinitrotoluene	606-20-2	58 U	58	170	1000000	1
10132	HMX	2691-41-0	140 U	140	430	1000000	1
10132	Nitrobenzene	98-95-3	58 U	58	170	1000000	1
10132	Nitroglycerin	55-63-0	1,200 U	1,200	3,500	1000000	1
10132	2-Nitrotoluene	88-72-2	120 U	120	170	1000000	1
10132	3-Nitrotoluene	99-08-1	140 U	140	170	1000000	1
10132	4-Nitrotoluene	99-99-0	120 U	120	170	1000000	1
10132	PETN	78-11-5	1,200 U	1,200	3,500	1000000	1
10132	RDX	121-82-4	72 U	72	170	1000000	1
10132	Tetryl	479-45-8	88 U	88	170	1000000	1
10132	1,3,5-Trinitrobenzene	99-35-4	58 U	58	170	1000000	1
10132	2,4,6-Trinitrotoluene	118-96-7	58 U	58	170	1000000	1

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**Sample Description:** SL-005-SA5C-SB-4.0-5.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-005-SA5C-SB-4.0-5.0

LLI Sample # SW 6162957  
 LLI Group # 1225039  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 15:29

CDM Federal Programs Corp.  
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 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3514 SDG#: DE035-14

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>HPLC Organics SW-846 8315A</b>								
04173	17a Formaldehyde by 8315A	50-00-0	690 U		690	1,700		1
<b>Pesticides/PCBs SW-846 8082</b>								
10225	Aroclor 5432	63496-31-1	1.2 U		1.2	3.8		1
10225	Aroclor 5442	12642-23-8	1.2 U		1.2	3.8		1
10225	Aroclor 5460	11126-42-4	1.2 U		1.2	3.8		1
10225	PCB-1016	12674-11-2	0.38 U		0.38	2.0		1
10225	PCB-1221	11104-28-2	0.58 U		0.58	2.0		1
10225	PCB-1232	11141-16-5	0.60 U		0.60	2.0		1
10225	PCB-1242	53469-21-9	0.58 U		0.58	2.0		1
10225	PCB-1248	12672-29-6	0.38 U		0.38	2.0		1
10225	PCB-1254	11097-69-1	0.86 J		0.38	2.0		1
10225	PCB-1260	11096-82-5	0.38 U		0.38	2.0		1
10225	PCB-1262	37324-23-5	0.38 U		0.38	2.0		1
10225	PCB-1268	11100-14-4	0.38 U		0.38	2.0		1
The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.								
<b>GC Extractable TPH SW-846 8015B modified</b>								
10199	EFH (C12-C14)	n.a.	0.46 U		0.46	1.4		1
10199	EFH (C15-C20)	n.a.	0.46 U		0.46	1.4		1
10199	EFH (C21-C30)	n.a.	0.46 U		0.46	1.4		1
10199	EFH (C30 - C40)	n.a.	0.60 J		0.46	1.4		1
10199	EFH (C8-C11)	n.a.	0.46 U		0.46	1.4		1
The beginning CCV was outside method criteria. Due to limited extract volume a re-analysis could not be performed; therefore, the data is reported.								
<b>GC Miscellaneous SW-846 8015B</b>								
10501	Ethanol	64-17-5	190 J		120	580		1
10501	Isopropanol	67-63-0	120 U		120	580		1
10501	Methanol	67-56-1	120 U		120	580		1
<b>GC Miscellaneous SW-846 8015B modified</b>								
08283	Diethylene glycol	111-46-6	5.8 U		5.8	14		1
08283	Ethylene glycol	107-21-1	5.8 U		5.8	14		1
08283	Propylene glycol	57-55-6	5.8 U		5.8	14		1
<b>Terphenyls SW-846 8015B</b>								
10318	m-Terphenyl	92-06-8	1.7 U		1.7	4.0		1
10318	o-Terphenyl	84-15-1	1.7 U		1.7	4.0		1
10318	p-Terphenyl	92-94-4	1.7 U		1.7	4.0		1
<b>Metals SW-846 6010B</b>								
01643	Aluminum	7429-90-5	26,300		5.63	22.4		1
07914	Boron	7440-42-8	11.3		0.995	5.59		1

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 Shaded result = The results or reporting limit exceeded the client-provided action limit.

**Sample Description:** SL-005-SA5C-SB-4.0-5.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-005-SA5C-SB-4.0-5.0

LLI Sample # SW 6162957  
 LLI Group # 1225039  
 Account # 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 15:29

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3514 SDG#: DE035-14

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Metals</b>							
		<b>SW-846 6010B</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
01650	Calcium	7440-70-2	54,500	6.86	22.4		1
01654	Iron	7439-89-6	30,200	10.5	44.7		2
01656	Lithium	7439-93-2	27.9	0.25	2.2		1
01657	Magnesium	7439-95-4	7,580	2.84	11.2		1
06958	Manganese	7439-96-5	354	0.0872	0.559		1
10145	Phosphorus	7723-14-0	465	0.626	11.2		1
01662	Potassium	7440-09-7	4,400	20.1	55.9		1
01667	Sodium	7440-23-5	230	41.7	112		1
07968	Strontium	7440-24-6	110	0.0693	0.559		1
06969	Tin	7440-31-5	2.19 J	1.12	11.2		1
06970	Titanium	7440-32-6	1,430	0.438	1.15		1
10146	Zirconium	7440-67-7	2.74 J	0.940	5.59		1
		<b>SW-846 6020</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
06124	Antimony	7440-36-0	0.267	0.0665	0.222		2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	8.78	0.0665	0.443		2
06126	Barium	7440-39-3	175	0.120	0.443		2
06127	Beryllium	7440-41-7	0.799	0.0177	0.111		2
06128	Cadmium	7440-43-9	0.375	0.0399	0.111		2
06131	Chromium	7440-47-3	37.4	0.133	0.443		2
06132	Cobalt	7440-48-4	10.8	0.0222	0.111		2
06133	Copper	7440-50-8	16.9	0.0731	0.443		2
06135	Lead	7439-92-1	12.5	0.0115	0.222		2
06138	Molybdenum	7439-98-7	0.550	0.0554	0.111		2
06139	Nickel	7440-02-0	21.0	0.111	0.443		2
06141	Selenium	7782-49-2	0.284 J	0.0443	0.443		2
06142	Silver	7440-22-4	0.0434 J	0.0133	0.111		2
06145	Thallium	7440-28-0	0.468	0.0332	0.111		2
06148	Vanadium	7440-62-2	77.0	0.0244	0.111		2
06149	Zinc	7440-66-6	95.8	0.620	3.32		2
		<b>SW-846 7471A</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
00159	Mercury	7439-97-6	0.0031 U	0.0031	0.108		1
<b>Wet Chemistry</b>							
		<b>EPA 300.0</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	2.6	0.92	1.2		1
07336	11a Anions by 300.0 - Nitrate	14797-55-8	6.7	0.92	1.7		1
		<b>EPA 314.0</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10147	7a Perchlorate EPA 314.0	14797-73-0	10.4 U	10.4	34.6		1
		<b>SW-846 7199</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	
05892	3a Cr VI by EPA 7199	18540-29-9	0.23 U	0.23	1.2		1

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**Sample Description:** SL-005-SA5C-SB-4.0-5.0 Soil  
 SSFL Area IV Collocated Soil Sampling  
 SL-005-SA5C-SB-4.0-5.0

**LLI Sample #** SW 6162957  
**LLI Group #** 1225039  
**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 15:29

CDM Federal Programs Corp.  
 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3514 SDG#: DE035-14

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
<b>Wet Chemistry</b>							
		<b>SW-846 9012B</b>	mg/kg	mg/kg	mg/kg	mg/kg	
05895	21a Cyanide by 9012B The sample was analyzed outside of the 14 day holding time for Total Cyanide.	57-12-5	0.21 U	0.21	0.57		1
<b>ASTM D1498</b>							
			mV	mV	mV	mV	
01821	Oxidation Reduction Potential The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.	n.a.	496	10.0	10.0		1
<b>SW-846 9045C modified</b>							
			Std. Units	Std. Units	Std. Units	Std. Units	
00394	22a pH by 9045C	n.a.	8.22	0.0100	0.0100		1
<b>Wet Chemistry</b>							
		<b>EPA 160.3 modified</b>	%	%	%	%	
11624	28a Moisture Content by 160.3 "Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.	n.a.	13.2	0.50	0.50		1

### General Sample Comments

State of California Lab Certification No. 2501  
 The volatile analysis was performed on soil from SL-005-SA5C-SB-4.5.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06192	1a Volatile Organics EPA 8260B	SW-846 8260B	1	B103482AA	12/15/2010 02:27	Laura M Krieger	0.94
10326	14a 1,4-Dioxane by 8260B SIM	SW-846 8260B SIM	1	E103493AA	12/16/2010 01:48	Sara E Johnson	22.56
08390	GC/MS - HL Encore Prep	SW-846 5035	1	201034523272	12/11/2010 18:56	Christopher D Meeks	n.a.
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035	1	201034523272	12/11/2010 19:12	Christopher D Meeks	n.a.
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035	2	201034523272	12/11/2010 19:12	Christopher D Meeks	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035	1	201034523272	12/11/2010 18:56	Christopher D Meeks	n.a.
11622	19a NDMA by 1625C	EPA 1625C	1	10354SLC026	01/05/2011 11:22	Timothy J Trees	1
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10350SLB026	01/01/2011 06:12	Ryan P Byrne	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10349SLH026	12/23/2010 04:04	Gregory J Drahovsky	1

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### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11630	NDMA Soil Microwave	SW-846 3546	1	10354SLC026	12/20/2010 14:45	Olivia I Santiago	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10349SLH026	12/16/2010 06:15	Joseph S Feister	1
00381	BNA Soil Sonication	SW-846 3550B	1	10350SLB026	12/16/2010 17:30	Sally L Appleyard	1
05551	9a TPH by EPA 8015B Gas C5-C12	TPH GRO SW-846 8015B mod	1	10340B34B	12/14/2010 16:24	Elizabeth J Marin	19.94
06130	GC - 5 g HL Encore Prep	SW-846 5035	1	201034523272	12/11/2010 18:55	Christopher D Meeks	n.a.
10132	20a Energetics by 8330A	SW-846 8330A	1	103480012A	12/17/2010 01:11	Michele D Hamilton	1
04173	17a Formaldehyde by 8315A	SW-846 8315A	1	103480007A	12/16/2010 02:07	Michele D Hamilton	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	103500026A	12/22/2010 06:36	Lindsey K Lafferty	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	103500026A	12/17/2010 00:40	David V Hershey Jr	1
05876	Formaldehyde Solid Extraction	SW-846 8315A	1	103480007A	12/14/2010 15:00	Kelli M Barto	1
11137	Energetics Extraction	SW-846 8330	1	103480012A	12/14/2010 14:45	Wanda F Oswald	1
10199	9a TPH by EPA 8015B Oil/Diesel	SW-846 8015B modified	1	103570006A	12/27/2010 12:00	Heather E Williams	1
10501	25a Alcohols by 8015B	SW-846 8015B	1	103480003A	12/15/2010 19:06	Dustin A Underkoffler	1
08283	27a Glycols by 8015B	SW-846 8015B modified	1	103480019A	12/17/2010 15:06	Robert Brown	1
10318	26a Terphenyls by 8015B	SW-846 8015B	1	103550026A	12/23/2010 05:03	Heather E Williams	1
11238	EFH Extraction - Soils	SW-846 3550B	2	103570006A	12/23/2010 17:00	JoElla L Rice	1
10303	Terphenyls soil prep	SW-846 3550B	1	103550026A	12/22/2010 07:00	Kerrie A Freeburn	1
11551	Direct Inj. Solids Glycol Ext.	SW-846 8015B	1	103480019A	12/15/2010 12:00	Dustin A Underkoffler	1
00380	Direct Injection Solids Ext	SW-846 8015B	1	103480003A	12/15/2010 12:00	Dustin A Underkoffler	1
01643	Aluminum	SW-846 6010B	1	103495708006	12/17/2010 20:21	John P Hook	1
07914	Boron	SW-846 6010B	1	103495708006	12/17/2010 20:21	John P Hook	1
01650	Calcium	SW-846 6010B	1	103495708006	12/17/2010 20:21	John P Hook	1
01654	Iron	SW-846 6010B	1	103495708006	12/22/2010 16:26	John P Hook	2
01656	Lithium	SW-846 6010B	1	103495708006	12/21/2010 08:51	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	103495708006	12/17/2010 20:21	John P Hook	1
06958	Manganese	SW-846 6010B	1	103495708006	12/17/2010 20:21	John P Hook	1
10145	Phosphorus	SW-846 6010B	1	103495708006	12/17/2010 20:21	John P Hook	1
01662	Potassium	SW-846 6010B	1	103495708006	12/17/2010 20:21	John P Hook	1
01667	Sodium	SW-846 6010B	1	103495708006	12/17/2010 20:21	John P Hook	1
07968	Strontium	SW-846 6010B	1	103495708006	12/17/2010 20:21	John P Hook	1
06969	Tin	SW-846 6010B	1	103495708006	12/17/2010 20:21	John P Hook	1
06970	Titanium	SW-846 6010B	1	103555708001	12/22/2010 08:50	Joanne M Gates	1
10146	Zirconium	SW-846 6010B	1	103495708006	12/21/2010 08:51	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	103491026005A	12/23/2010 12:41	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103491026005A	12/23/2010 12:41	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103491026005D	12/23/2010 12:41	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103491026005A	12/23/2010 12:41	Choon Y Tian	2

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 SSFL Area IV Collocated Soil Sampling  
 SL-005-SA5C-SB-4.0-5.0

**LLI Sample #** SW 6162957  
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**Account #** 13013

**Project Name:** SSFL Area IV Collocated Soil Sampling

Collected: 12/10/2010 15:29

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 14420 Albemarle Point Place  
 Suite 210  
 Chantilly VA 20151

Submitted: 12/11/2010 09:40

Reported: 01/13/2011 09:58

D3514 SDG#: DE035-14

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
06128	Cadmium	SW-846 6020	1	103491026005A	12/23/2010	12:41	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103491026005A	12/23/2010	12:41	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103491026005A	12/23/2010	12:41	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103491026005A	12/23/2010	12:41	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103491026005A	12/23/2010	12:41	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103491026005C	12/23/2010	12:41	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103491026005A	12/23/2010	12:41	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103491026005B	12/23/2010	12:41	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103491026005A	12/23/2010	12:41	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103491026005A	12/23/2010	12:41	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103491026005A	12/23/2010	12:41	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	103491026005A	12/23/2010	12:41	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	103495711005	12/16/2010	06:56	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	103495708006	12/15/2010	20:01	Annamaria Stipkovits	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	103555708001	12/21/2010	12:28	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103491026005	12/15/2010	20:03	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	103495711005	12/15/2010	22:15	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10362362201B	12/30/2010	04:35	Ashley M Adams	1
07336	11a Anions by 300.0 - Nitrate	EPA 300.0	1	10362362201B	12/30/2010	04:35	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10362362201A	12/29/2010	05:54	Ashley M Adams	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	10358243201A	12/29/2010	15:04	Ashley M Adams	1
05895	21a Cyanide by 9012B	SW-846 9012B	1	10361102201A	12/27/2010	18:41	Joseph E McKenzie	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10362362201B	12/28/2010	11:00	Erik J Frederiksen	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10362362203A	12/28/2010	14:00	Nancy J Shoop	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	10361102201A	12/27/2010	08:55	Nancy J Shoop	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10348182103B	12/14/2010	13:00	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10348039403B	12/14/2010	13:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10358243201A	12/24/2010	07:00	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	1	10357162401B	12/23/2010	21:06	Scott W Freisher	1

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